Appendix A

Primacy Revision Crosswalk

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SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
SUBPART A - GENERAL			
'141.2 DEFINITIONS			
Combined distribution system	'141.2		
Consecutive system	'141.2		
Dual sample set	'141.2		
Finished water	'141.2		
GAC10	'141.2		
GAC20	'141.2		
Locational running annual average	'141.2		
Wholesale system	'141.2		
SUBPART B - MAXIMUM CONTAMINANT LEVELS			
§ 141.12 MAXIMUM CONTAMINANT LEVELS FOR TOTAL TRIHALOMETHANES.			
Section 141.12 is removed and reserved.	§ 141.12		
SUBPART C - MONITORING AND ANALYTICAL REQUIREMENTS			
§ 141.30 TOTAL TRIHALOMETHANES SAMPLING, ANALYTICAL AND OTHER REQUIREMENTS.			
Section 141.30 is removed.	§ 141.30		

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SUBPART D - REPORTING AND RECORD KEEPING			
§ 141.32 PUBLIC NOTIFICATION.			
Section 141.32 is removed and reserved.	§ 141.32		
'141.33 RECORD MAINTENANCE			
Records of microbiological analyses and turbidity analyses made pursuant to this part shall be kept for not less than 5 years.	'141.33(a)		
Copies of monitoring plans developed pursuant to this part shall be kept for the same period of time as the records of analyses taken under the plan are required to be kept under paragraph (a) of this section, except as specified elsewhere in this part.	'141.33(f)		
SUBPART F - MAXIMUM CONTAMINANT LEVEL GOALS[1]			
'141.53 MAXIMUM CONTAMINANT LEVEL GOALS FOR DISINFECTION BYPRODUCTS			
Bromodichloromethane: zero Bromoform: zero Bromate: zero Chlorite: 0.8 Chloroform: 0.07 mg/L Dibromochloromethane: 0.06 Dichloroacetic acik: zero Monochloroacetic acid: 0.07 mg/L Trichloroacetic acid: 0.02 mg/L	'141.53		

[1]States need not have corresponding MCLGs.

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SUBPART G - NATIONAL PRIMARY DRINKING WATER REGULATIONS: MAXIMUM CONTAMINANT LEVELS AND MAXIMUM RESIDUAL DISINFECTANT LEVELS			
'141.64 MAXIMUM CONTAMINANT LEVELS FOR DISINFECTION BYPRODUCTS			
Bromate and chlorite. The maximum contaminant levels (MCLs) for bromate and chlorite are as follows: Disinfection byproduct MCL (mg/L) Bromate ..... 0.010 Chlorite 1.0	'141.64(a)		
Subpart H systems serving 10,000 or more persons must comply with this paragraph (a) beginning January 1, 2002. Subpart H systems serving fewer than 10,000 persons and systems using only ground water not under the direct influence of surface water must comply with this paragraph (a) beginning January 1, 2004.	'141.64(a)(1)		
The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for bromate and chlorite identified in this paragraph (a): Bromate: Control of ozone treatment process to reduce production of bromate. Chlorite: Control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels.	'141.64(a)(2)		

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TTHM and HAA5 - Subpart L - RAA compliance. Compliance dates. Subpart H systems serving 10,000 or more persons must comply with this paragraph (b)(1) beginning January 1, 2002. Subpart H systems serving fewer than 10,000 persons and systems using only ground water not under the direct influence of surface water must comply with this paragraph (b)(1) beginning January 1, 2004. All systems must comply with these MCLs until the date specified for subpart V compliance in '141.620(c). Disinfection byproduct MCL (mg/L) Total trihalomethanes (TTHM) ..... 0.080 Haloacetic acids (five) (HAA5) 0.060	'141.64(b)(1)(i)		
The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for TTHM and HAA5 identified in this paragraph (b)(1): Enhanced coagulation or enhanced softening or GAC10, with chlorine as the primary and residual disinfectant.	'141.64(b)(1)(ii)		
Subpart VCLRAA compliance. *Compliance dates*. The subpart V MCLs for TTHM and HAA5 must be complied with as a locational running annual average at each monitoring location beginning the date specified for subpart V compliance in §141.620(c). Disinfection byproduct MCL(mg/L) Total trihalomethanes (TTHM) ..... 0.080 Haloacetic acids (five) (HAA5) 0.060	'141.64(b)(2)(i)		

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The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for TTHM and HAA5 identified in this paragraph (b)(2) for all systems that disinfect their source water: Enhanced coagulation or enhanced softening, plus GAC10; or nanofiltration with a molecular weight cutoff ≤ 1000 Daltons; or GAC20.	'141.64(b)(2)(ii)		
The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for TTHM and HAA5 identified in this paragraph (b)(2) for consecutive systems and applies only to the disinfected water that consecutive systems buy or otherwise receive: **Systems serving ≥10,000**: Improved distribution system and storage tank management to reduce residence time, plus the use of chloramines for disinfectant residual maintenance. **Systems serving <10,000**: Improved distribution system and storage tank management to reduce residence time.	'141.64(b)(2)(iii)		
SUBPART L - DISINFECTANT RESIDUALS, DISINFECTION BYPRODUCTS, AND DISINFECTION BYPRODUCT PRECURSORS			
'141.131 ANALYTICAL REQUIREMENTS			
General. Systems must use only the analytical methods specified in this section, or their equivalent as approved by EPA, to demonstrate compliance with the requirements of this subpart and with the requirements of subparts U and V of this part. These methods are effective for compliance monitoring February 16, 1999, unless a different effective date is specified in this section or by the State.	'141.131(a)(1)		

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A number of documents on methods are incorporated by reference.	'141.131(a)(2)		
Disinfection byproducts. Systems must measure disinfection byproducts by the methods (as modified by the footnotes) listed in the table included in this section.	'141.131(b)(1)		
Analyses under this section for disinfection byproducts must be conducted by laboratories that have received certification by EPA or the State, except as specified under paragraph (b)(3) of this section. To receive certification to conduct analyses for the DBP contaminants in §§141.64, 141.135, and subparts U and V of this part, the laboratory must:	'141.131(b)(2)		
Analyze Performance Evaluation (PE) samples that are acceptable to EPA or the State at least once during each consecutive 12 month period by each method for which the laboratory desires certification.	'141.131(b)(2)(i)		
Until March 31, 2007, in these analyses of PE samples, the laboratory must achieve quantitative results within the acceptance limit on a minimum of 80% of the analytes included in each PE sample. The acceptance limit is defined as the 95% confidence interval calculated around the mean of the PE study between a maximum and minimum acceptance limit of +/-50% and +/-15% of the study mean.	'141.131(b)(2)(ii)		
Beginning April 1, 2007, the laboratory must achieve quantitative results on the PE sample analyses that are within the acceptance limits presented in the table included in this section.	'141.131(b)(2)(iii)		
Beginning April 1, 2007, report quantitative data for concentrations at least as low as the ones listed in the following table for all DBP samples analyzed for compliance with §§141.64, 141.135, and subparts U and V of this part:	'141.131(b)(2)(iv)		

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The table in this section presents which residuals are measured by which methodologies.	'141.131(c)(1)		
Bromide. EPA Methods 300.0, 300.1, 317.0 Revision 2.0, 326.0, or ASTM D 6581-00.	'141.131(d)(2)		
Total Organic Carbon (TOC). Standard Method 5310 B or 5310 B-00 (High-Temperature Combustion Method) or Standard Method 5310 C or 5310 C-00 (Persulfate-Ultraviolet or Heated-Persulfate Oxidation Method) or Standard Method 5310 D or 5310 D-00 (Wet-Oxidation Method) or EPA Method 415.3 Revision 1.1. Inorganic carbon must be removed from the samples prior to analysis. TOC samples may not be filtered prior to analysis. TOC samples must be acidified at the time of sample collection to achieve pH less than or equal to 2 with minimal addition of the acid specified in the method or by the instrument manufacturer. Acidified TOC samples must be analyzed within 28 days.	'141.131(d)(3)		

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Dissolved Organic Carbon (DOC). Standard Method 5310 B or 5310 B-00 (High-Temperature Combustion Method) or Standard Method 5310 C or 5310 C-00 (Persulfate-Ultraviolet or Heated-Persulfate Oxidation Method) or Standard Method 5310 D or 5310 D-00 (Wet-Oxidation Method) or EPA Method 415.3 Revision 1.1. DOC samples must be filtered through the 0.45 µm pore-diameter filter as soon as practical after sampling, not to exceed 48 hours. After filtration, DOC samples must be acidified to achieve pH less than or equal to 2 with minimal addition of the acid specified in the method or by the instrument manufacturer. Acidified DOC samples must be analyzed within 28 days of sample collection. Inorganic carbon must be removed from the samples prior to analysis. Water passed through the filter prior to filtration of the sample must serve as the filtered blank. This filtered blank must be analyzed using procedures identical to those used for analysis of the samples and must meet the following criteria: DOC < 0.5 mg/L.	'141.131(d)(4)(i)		
Ultraviolet Absorption at 254 nm (UV_{254}). Standard Method 5910 B or 5910 B-00 (Ultraviolet Absorption Method) or EPA Method 415.3 Revision 1.1. UV absorption must be measured at 253.7 nm (may be rounded off to 254 nm). Prior to analysis, UV_{254} samples must be filtered through a 0.45 µm pore-diameter filter. The pH of UV_{254} samples may not be adjusted. Samples must be analyzed as soon as practical after sampling, not to exceed 48 hours.	'141.131(d)(4)(ii)		
Magnesium. All methods allowed in '141.23(k)(1) for measuring magnesium.	'141.131(d)(6)		

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'141.132 MONITORING REQUIREMENTS			
Redesignating paragraphs (b)(1)(iii) through (b)(1)(v) as paragraphs (b)(1)(iv) through (b)(1)(vi), Adding a new paragraph (b)(1)(iii) ; Revising the newly redesignated paragraph (b)(1)(iv)	'141.132(b)(1)(iii) – (v)		
Monitoring requirements for source water TOC. In order to qualify for reduced monitoring for TTHM and HAA5 under paragraph (b)(1)(ii) of this section, subpart H systems not monitoring under the provisions of paragraph (d) of this section must take monthly TOC samples every 30 days at a location prior to any treatment, beginning April 1, 2008 or earlier, if specified by the State. In addition to meeting other criteria for reduced monitoring in paragraph (b)(1)(ii) of this section, the source water TOC running annual average must be $\leq$4.0 mg/L (based on the most recent four quarters of monitoring) on a continuing basis at each treatment plant to reduce or remain on reduced monitoring for TTHM and HAA5. Once qualified for reduced monitoring for TTHM and HAA5 under paragraph (b)(1)(ii) of this section, a system may reduce source water TOC monitoring to quarterly TOC samples taken every 90 days at a location prior to any treatment.	'141.132(b)(1)(iii)		

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Systems on a reduced monitoring schedule may remain on that reduced schedule as long as the average of all samples taken in the year (for systems which must monitor quarterly) or the result of the sample (for systems which must monitor no more frequently than annually) is no more than 0.060 mg/L and 0.045 mg/L for TTHMs and HAA5, respectively. Systems that do not meet these levels must resume monitoring at the frequency identified in paragraph (b)(1)(i) of this section (minimum monitoring frequency column) in the quarter immediately following the monitoring period in which the system exceeds 0.060 mg/L or 0.045 mg/L for TTHMs and HAA5, respectively. For systems using only ground water not under the direct influence of surface water and serving fewer than 10,000 persons, if either the TTHM annual average is >0.080 mg/L or the HAA5 annual average is >0.060 mg/L, the system must go to the increased monitoring identified in paragraph (b)(1)(i) of this section (sample location column) in the quarter immediately following the monitoring period in which the system exceeds 0.080 mg/L or 0.060 mg/L for TTHMs or HAA5 respectively.	'141.132(b)(1)(iv)		
Until March 31, 2009, systems required to analyze for bromate may reduce monitoring from monthly to quarterly, if the system's average source water bromide concentration is less than 0.05 mg/L based on representative monthly bromide measurements for one year. The system may remain on reduced bromate monitoring until the running annual average source water bromide concentration, computed quarterly, is equal to or greater than 0.05 mg/L based on representative monthly measurements. If the running annual average source water bromide concentration is $0.05 mg/L, the system must resume routine monitoring required by paragraph (b)(3)(i) of this section in the following month.	'141.132(b)(3)(ii)(A)		

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Beginning April 1, 2009, systems may no longer use the provisions of paragraph (b)(3)(ii)(A) of this section to qualify for reduced monitoring. A system required to analyze for bromate may reduce monitoring from monthly to quarterly, if the system's running annual average bromate concentration is $\leq$0.0025 mg/L based on monthly bromate measurements under paragraph (b)(3)(i) of this section for the most recent four quarters, with samples analyzed using Method 317.0 Revision 2.0, 326.0 or 321.8. If a system has qualified for reduced bromate monitoring under paragraph (b)(3)(ii)(A) of this section, that system may remain on reduced monitoring as long as the running annual average of quarterly bromate samples $\leq$0.0025 mg/L based on samples analyzed using Method 317.0 Revision 2.0, 326.0, or 321.8. If the running annual average bromate concentration is >0.0025 mg/L, the system must resume routine monitoring required by paragraph (b)(3)(i) of this section.	'141.132(b)(3)(ii)(B)		
§ 141.133 COMPLIANCE REQUIREMENTS.			
Section 141.133 is amended in the last sentence of paragraph (d) by revising the reference "§141.32" to read "subpart Q of this part".	'141.133(d)		
'141.135 TREATMENT TECHNIQUE FOR CONTROL OF DISINFECTION BYPRODUCT (DBP) PRECURSORS			
Softening that results in removing at least 10 mg/L of magnesium hardness (as $CaCO_3$), measured monthly according to §141.131(d)(6) and calculated quarterly as a running annual average.	'141.135(a)(3)(ii)		

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SUBPART O - CONSUMER CONFIDENCE REPORTS			
'141.151 PURPOSE AND APPLICABILITY OF THIS SUBPART			
For the purpose of this subpart, *detected* means: at or above the levels prescribed by §141.23(a)(4) for inorganic contaminants, at or above the levels prescribed by §141.24(f)(7) for the contaminants listed in §141.61(a), at or above the levels prescribed by §141.24(h)(18) for the contaminants listed in §141.61(c), at or above the levels prescribed by §141.131(b)(2)(iv) for the contaminants or contaminant groups listed in §141.64, and at or above the levels prescribed by §141.25(c) for radioactive contaminants.	'141.151(d)		
'141.153 CONTENT OF THE REPORTS			
When compliance with the MCL is determined by calculating a running annual average of all samples taken at a monitoring location: the highest average of any of the monitoring locations and the range of all monitoring locations expressed in the same units as the MCL. For the MCLs for TTHM and HAA5 in §141.64(b)(2), systems must include the highest locational running annual average for TTHM and HAA5 and the range of individual sample results for all monitoring locations expressed in the same units as the MCL. If more than one location exceeds the TTHM or HAA5 MCL, the system must include the locational running annual averages for all locations that exceed the MCL.	'141.153(d)(4)(iv)(B)		

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When compliance with the MCL is determined on a system-wide basis by calculating a running annual average of all samples at all monitoring locations: the average and range of detection expressed in the same units as the MCL. The system is required to include individual sample results for the IDSE conducted under subpart U of this part when determining the range of TTHM and HAA5 results to be reported in the annual consumer confidence report for the calendar year that the IDSE samples were taken.	'141.153(d)(4)(iv)(C)		
SUBPART Q - PUBLIC NOTIFICATION OF DRINKING WATER VIOLATIONS			
APPENDIX A TO SUBPART Q OF PART 141 - NPDWR VIOLATIONS AND OTHER SITUATIONS REQUIRING PUBLIC NOTICE			
17. In Subpart Q, Appendix A various endnotes are amended.	Appendix A Endnotes		
In entry I.B.2. in the fifth column, remove the endnote citation "9" and add in its place "11"; In entry I.B.11. in the fourth column, remove the endnote citation "10" and add in its place "12"; In entry I.B.12. in the fourth column, remove the endnote citation "10" and add in its place "12"; In entry I.G. in the first column, remove the endnote citation "11" and add in its place "13"; In entry I.G.1. in the third column, remove the endnote citation "12" and add in its place "14" and remove the citation in the third column "141.12,141.64(a)" and in its place add "141.64(b)" (keeping the endnote citation to endnote 14) and in the fifth column remove the citation "141.30" and add in numerical order the citations "141.600-141.605, 141.620-141.629"; In entry I.G.2. revise the entry "141.64(a)" to read "141.64(b)"	Appendix A Endnotes		

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and in the fifth column add in numerical order the citations "141.600-141.605, 141.620-141.629". In entry I.G.7. in the fourth column, remove the endnote citation "13" and add in its place "15"; In entry I.G.8. in the second column, remove the endnote citation "14" and add in its place "16"; In entry II. in the first column, remove the endnote citation "15" and add in its place "17"; In entry III.A. in the third column, remove the endnote citation "16" and add in its place "18"; In entry III.B in the third column, remove the endnote citation "17" and add in its place "19"; In entry IV.E. in the first column, remove the endnote citation "18" and add in its place 20"; and In entry III.F in the second column, remove the endnote citation "19" and add in its place "21".			
18. In Subpart Q, Appendix A, remove endnote14 and add in its place, to read as follows: A14. ''141.64(b)(1) and 141.132(a)-(b) apply until '' 141.620-141.630 take effect under the schedule in ' 141.620(c).	Appendix A Endnote 14		
APPENDIX B TO SUBPART Q OF PART 141 - STANDARD HEALTH EFFECTS LANGUAGE FOR PUBLIC NOTIFICATION			
19. In Subpart Q, Appendix B various endnotes are amended.	Appendix B Endnotes		

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In entry G.77. in the third column, remove the endnote citation "16" and add in its place "17"; In entry H. (the title) in the first column, remove the endnote citation "17" and add in its place "18"; In entry H.80. in the third column, remove the endnote citations "17, 18" and add in its place "19, 20" and remove the number "0.10/"; In entry H.81. in the third column, remove the endnote citation "20" and add in its place "21"; and In entry H.84. in the second column, remove the endnote citation "21" and add in its place "22" and in the third column remove the endnote citation "22" and add in its place "23".	Appendix B Endnotes		
In Subpart Q, Appendix B, remove endnotes 18 and 19 and add in their place, to read as follows: A18. Surface water systems and ground water systems under the direct influence of surface water are regulated under subpart H of 40 CFR 141. Subpart H community and non-transient non-community systems serving $\geq$10,000 must comply with subpart L DBP MCLs and disinfectant maximum residual disinfectant levels (MRDLs) beginning January 1, 2002. All other community and non-transient non-community systems must comply with subpart L DBP MCLs and disinfectant MRDLs beginning January 1, 2004. Subpart H transient non-community systems serving $\geq$10,000 that use chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2002. All other transient non-community systems that use chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2004.	Appendix B Endnote 18		

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Community and non-transient non-community systems must comply with subpart V TTHM and HAA5 MCLs of 0.080 mg/L and 0.060 mg/L, respectively (with compliance calculated as a locational running annual average) on the schedule in '141.620.@	Appendix B Endnote 19		
SUBPART U - INITIAL DISTRIBUTION SYSTEM EVALUATIONS			
'141.600 GENERAL REQUIREMENTS			
The requirements of subpart U of this part constitute national primary drinking water regulations. The regulations in this subpart establish monitoring and other requirements for identifying subpart V compliance monitoring locations for determining compliance with maximum contaminant levels for total trihalomethanes (TTHM) and haloacetic acids (five)(HAA5). You must use an Initial Distribution System Evaluation (IDSE) to determine locations with representative high TTHM and HAA5 concentrations throughout your distribution system. IDSEs are used in conjunction with, but separate from, subpart L compliance monitoring, to identify and select subpart V compliance monitoring locations.	'141.600(a)		
Applicability. You are subject to these requirements if your system is a community water system that uses a primary or residual disinfectant other than ultraviolet light or delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light; or if your system is a nontransient noncommunity water system that serves at least 10,000 people and uses a primary or residual disinfectant other than ultraviolet light or delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light.	'141.600(b)		
Schedule. You must comply with the requirements of this subpart on the schedule in the table in this paragraph (c)(1).	'141.600(c)(1)		

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Systems serving ≥ 100,000: You must submit your standard monitoring plan or system specific study plan[1] or 40/30 certification[2] to the state by or receive very small system waiver from state - October 1, 2006 You must complete your standard monitoring or system specific study by - September 30, 2008 You must submit your IDSE report to the state by [3] - January 1, 2009	'141.600(c)(1)(i)		
Systems serving 50,000-99,999: You must submit your standard monitoring plan or system specific study plan[1] or 40/30 certification[2] to the state by or receive very small system waiver from state - April 1, 2007 You must complete your standard monitoring or system specific study by - March 31, 2009 You must submit your IDSE report to the state by [3] - July 1, 2009	'141.600(c)(1)(ii)		
Systems serving 10,000-49,999: You must submit your standard monitoring plan or system specific study plan[1] or 40/30 certification[2] to the state by or receive very small system waiver from state - October 1, 2007 You must complete your standard monitoring or system specific study by - September 30, 2009 You must submit your IDSE report to the state by [3] - January 1, 2010	'141.600(c)(1)(iii)		

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Systems serving ≤ 10,000 (CWS Only): You must submit your standard monitoring plan or system specific study plan[1] or 40/30 certification[2] to the state by or receive very small system waiver from state - April 1, 2008 You must complete your standard monitoring or system specific study by - March 31, 2010 You must submit your IDSE report to the state by [3] - July 1, 2010	'141.600(c)(1)(iv)		
Consecutive system or wholesale system: at the same time as the system with the earliest compliance date in the combined distribution system	'141.600(c)(1)(v)		
[1] If, within 12 months after the date identified in this column, the State does not approve your plan or notify you that it has not yet completed its review, you may consider the plan that you submitted as approved. You must implement that plan and you must complete standard monitoring or a system specific study no later than the date identified in the third column.	Footnote to '141.600(c)(1)(i) - (v)		
[2] You must submit your 40/30 certification under §141.603 by the date indicated.	Footnote to '141.600(c)(1)(i) - (v)		
[3] If, within three months after the date identified in this column (nine months after the date identified in this column if you must comply on the schedule in paragraph (c)(1)(iii) of this section), the State does not approve your IDSE report or notify you that it has not yet completed its review, you may consider the report that you submitted as approved and you must implement the recommended subpart V monitoring as required.	Footnote to '141.600(c)(1)(i) - (v)		

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For the purpose of the schedule in paragraph (c)(1) of this section, the State may determine that the combined distribution system does not include certain consecutive systems based on factors such as receiving water from a wholesale system only on an emergency basis or receiving only a small percentage and small volume of water from a wholesale system. The State may also determine that the combined distribution system does not include certain wholesale systems based on factors such as delivering water to a consecutive system only on an emergency basis or delivering only a small percentage and small volume of water to a consecutive system.	'141.600(c)(2)		
You must conduct standard monitoring that meets the requirements in §141.601, or a system specific study that meets the requirements in §141.602, or certify to the State that you meet 40/30 certification criteria under §141.603, or qualify for a very small system waiver under §141.604.	'141.600(d)		
You must have taken the full complement of routine TTHM and HAA5 compliance samples required of a system with your population and source water under subpart L of this part (or you must have taken the full complement of reduced TTHM and HAA5 compliance samples required of a system with your population and source water under subpart L if you meet reduced monitoring criteria under subpart L of this part) during the period specified in §141.603(a) to meet the 40/30 certification criteria in §141.603. You must have taken TTHM and HAA5 samples under §§141.131 and 141.132 to be eligible for the very small system waiver in §141.604.	'141.600(d)(1)		
If you have not taken the required samples, you must conduct standard monitoring that meets the requirements in §141.601, or a system specific study that meets the requirements in §141.602.	'141.600(d)(2)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
You must use only the analytical methods specified in §141.131, or otherwise approved by EPA for monitoring under this subpart, to demonstrate compliance with the requirements of this subpart.	'141.600(e)		
IDSE results will not be used for the purpose of determining compliance with MCLs in §141.64.	'141.600(f)		
'141.601 STANDARD MONITORING			
Standard monitoring plan. Your standard monitoring plan must comply with paragraphs (a)(1) through (a)(4) of this section. You must prepare and submit your standard monitoring plan to the State according to the schedule in §141.600(c).	'141.601(a)		
Your standard monitoring plan must include a schematic of your distribution system (including distribution system entry points and their sources, and storage facilities), with notes indicating locations and dates of all projected standard monitoring, and all projected subpart L compliance monitoring.	'141.601(a)(1)		
Your standard monitoring plan must include justification of standard monitoring location selection and a summary of data you relied on to justify standard monitoring location selection.	'141.601(a)(2)		
Your standard monitoring plan must specify the population served and system type (subpart H or ground water).	'141.601(a)(3)		
You must retain a complete copy of your standard monitoring plan submitted under this paragraph (a), including any State modification of your standard monitoring plan, for as long as you are required to retain your IDSE report under paragraph (c)(4) of this section.	'141.601(a)(4)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
Standard monitoring. You must monitor as indicated in the table in this paragraph (b)(1). You must collect dual sample sets at each monitoring location. One sample in the dual sample set must be analyzed for TTHM. The other sample in the dual sample set must be analyzed for HAA5. You must conduct one monitoring period during the peak historical month for TTHM levels or HAA5 levels or the month of warmest water temperature. You must review available compliance, study, or operational data to determine the peak historical month for TTHM or HAA5 levels or warmest water temperature.	'141.601(b)(1)		
You must take samples at locations other than the existing subpart L monitoring locations. Monitoring locations must be distributed throughout the distribution system.	'141.601(b)(2)		
If the number of entry points to the distribution system is fewer than the specified number of entry point monitoring locations, excess entry point samples must be replaced equally at high TTHM and HAA5 locations. If there is an odd extra location number, you must take a sample at a high TTHM location. If the number of entry points to the distribution system is more than the specified number of entry point monitoring locations, you must take samples at entry points to the distribution system having the highest annual water flows.	'141.601(b)(3)		
Your monitoring under this paragraph (b) may not be reduced under the provisions of §141.29 and the State may not reduce your monitoring using the provisions of §142.16(m).	'141.601(b)(4)		
IDSE report. Your IDSE report must include the elements required in paragraphs (c)(1) through (c)(4) of this section. You must submit your IDSE report to the State according to the schedule in §141.600(c).	'141.601(c)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
Your IDSE report must include all TTHM and HAA5 analytical results from subpart L compliance monitoring and all standard monitoring conducted during the period of the IDSE as individual analytical results and LRAAs presented in a tabular or spreadsheet format acceptable to the State. If changed from your standard monitoring plan submitted under paragraph (a) of this section, your report must also include a schematic of your distribution system, the population served, and system type (subpart H or ground water).	'141.601(c)(1)		
Your IDSE report must include an explanation of any deviations from your approved standard monitoring plan.	'141.601(c)(2)		
You must recommend and justify subpart V compliance monitoring locations and timing based on the protocol in §141.605.	'141.601(c)(3)		
You must retain a complete copy of your IDSE report submitted under this section for 10 years after the date that you submitted your report. If the State modifies the subpart V monitoring requirements that you recommended in your IDSE report or if the State approves alternative monitoring locations, you must keep a copy of the State's notification on file for 10 years after the date of the State's notification. You must make the IDSE report and any State notification available for review by the State or the public.	'141.601(c)(4)		
'141.602 SYSTEM SPECIFIC STUDIES			
System specific study plan. Your system specific study plan must be based on either existing monitoring results as required under paragraph (a)(1) of this section or modeling as required under paragraph (a)(2) of this section. You must prepare and submit your system specific study plan to the State according to the schedule in §141.600(c).	'141.602(a)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
Existing monitoring results. You may comply by submitting monitoring results collected before you are required to begin monitoring under §141.600(c). The monitoring results and analysis must meet the criteria in paragraphs (a)(1)(i) and (a)(1)(ii) of this section.	'141.602(a)(1)		
Minimum requirements. TTHM and HAA5 results must be based on samples collected and analyzed in accordance with §141.131. Samples must be collected no earlier than five years prior to the study plan submission date.	'141.602(a)(1)(i)(A)		
The monitoring locations and frequency must meet the conditions identified in this paragraph (a)(1)(i)(B). Each location must be sampled once during the peak historical month for TTHM levels or HAA5 levels or the month of warmest water temperature for every 12 months of data submitted for that location. Monitoring results must include all subpart L compliance monitoring results plus additional monitoring results as necessary to meet minimum sample requirements.	'141.602(a)(1)(i)(B)		
Reporting monitoring results. You must report the information in this paragraph (a)(1)(ii).	'141.602(a)(1)(ii)		
You must report previously collected monitoring results and certify that the reported monitoring results include all compliance and non-compliance results generated during the time period beginning with the first reported result and ending with the most recent subpart L results.	'141.602(a)(1)(ii)(A)		
You must certify that the samples were representative of the entire distribution system and that treatment, and distribution system have not changed significantly since the samples were collected.	'141.602(a)(1)(ii)(B)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
Your study monitoring plan must include a schematic of your distribution system (including distribution system entry points and their sources, and storage facilities), with notes indicating the locations and dates of all completed or planned system specific study monitoring.	'141.602(a)(1)(ii)(C)		
Your system specific study plan must specify the population served and system type (subpart H or ground water).	'141.602(a)(1)(ii)(D)		
You must retain a complete copy of your system specific study plan submitted under this paragraph (a)(1), including any State modification of your system specific study plan, for as long as you are required to retain your IDSE report under paragraph (b)(5) of this section.	'141.602(a)(1)(ii)(E)		
If you submit previously collected data that fully meet the number of samples required under paragraph (a)(1)(i)(B) of this section and the State rejects some of the data, you must either conduct additional monitoring to replace rejected data on a schedule the State approves or conduct standard monitoring under §141.601.	'141.602(a)(1)(ii)(F)		
Modeling. You may comply through analysis of an extended period simulation hydraulic model. The extended period simulation hydraulic model and analysis must meet the criteria in this paragraph (a)(2).	'141.602(a)(2)		
Minimum requirements. The model must simulate 24 hour variation in demand and show a consistently repeating 24 hour pattern of residence time.	'141.602(a)(2)(i)(A)		
The model must represent the criteria listed in paragraphs (a)(2)(i)(B)(*1*) through (*9*) of this section.	'141.602(a)(2)(i)(B)		
75% of pipe volume;	'141.602(a)(2)(i)(B)(1)		

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50% of pipe length;	'141.602(a)(2)(i)(B)(2)		
All pressure zones;	'141.602(a)(2)(i)(B)(3)		
All 12-inch diameter and larger pipes;	'141.602(a)(2)(i)(B)(4)		
All 8-inch and larger pipes that connect pressure zones, influence zones from different sources, storage facilities, major demand areas, pumps, and control valves, or are known or expected to be significant conveyors of water;	'141.602(a)(2)(i)(B)(5)		
6-inch and larger pipes that connect remote areas of a distribution system to the main portion of the system;	'141.602(a)(2)(i)(B)(6)		
All storage facilities with standard operations represented in the model; and	'141.602(a)(2)(i)(B)(7)		
All active pump stations with controls represented in the model; and	'141.602(a)(2)(i)(B)(8)		
All active control valves.	'141.602(a)(2)(i)(B)(9)		
The model must be calibrated, or have calibration plans, for the current configuration of the distribution system during the period of high TTHM formation potential. All storage facilities must be evaluated as part of the calibration process. All required calibration must be completed no later than 12 months after plan submission.	'141.602(a)(2)(i)(C)		
Reporting modeling. Your system specific study plan must include the information in this paragraph (a)(2)(ii).	'141.602(a)(2)(C)(ii)		
Tabular or spreadsheet data demonstrating that the model meets requirements in paragraph (a)(2)(i)(B) of this section.	'141.602(a)(2)(C)(ii)(A)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
A description of all calibration activities undertaken, and if calibration is complete, a graph of predicted tank levels versus measured tank levels for the storage facility with the highest residence time in each pressure zone, and a time series graph of the residence time at the longest residence time storage facility in the distribution system showing the predictions for the entire simulation period (i.e., from time zero until the time it takes to for the model to reach a consistently repeating pattern of residence time).	'141.602(a)(2)(C)(ii)(B)		
Model output showing preliminary 24 hour average residence time predictions throughout the distribution system.	'141.602(a)(2)(C)(ii)(C)		
Timing and number of samples representative of the distribution system planned for at least one monitoring period of TTHM and HAA5 dual sample monitoring at a number of locations no less than would be required for the system under standard monitoring in §141.601 during the historical month of high TTHM. These samples must be taken at locations other than existing subpart L compliance monitoring locations.	'141.602(a)(2)(C)(ii)(D)		
Description of how all requirements will be completed no later than 12 months after you submit your system specific study plan.	'141.602(a)(2)(C)(ii)(E)		
Schematic of your distribution system (including distribution system entry points and their sources, and storage facilities), with notes indicating the locations and dates of all completed system specific study monitoring (if calibration is complete) and all subpart L compliance monitoring.	'141.602(a)(2)(C)(ii)(F)		
Population served and system type (subpart H or ground water).	'141.602(a)(2)(C)(ii)(G)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
You must retain a complete copy of your system specific study plan submitted under this paragraph (a)(2), including any State modification of your system specific study plan, for as long as you are required to retain your IDSE report under paragraph (b)(7) of this section.	'141.602(a)(2)(C)(ii)(H)		
If you submit a model that does not fully meet the requirements under paragraph (a)(2) of this section, you must correct the deficiencies and respond to State inquiries concerning the model. If you fail to correct deficiencies or respond to inquiries to the State's satisfaction, you must conduct standard monitoring under §141.601.	'141.602(a)(2)(C)(iii)		
IDSE report. Your IDSE report must include the elements required in paragraphs (b)(1) through (b)(6) of this section. You must submit your IDSE report according to the schedule in §141.600(c).	'141.602(b)		
Your IDSE report must include all TTHM and HAA5 analytical results from subpart L compliance monitoring and all system specific study monitoring conducted during the period of the system specific study presented in a tabular or spreadsheet format acceptable to the State. If changed from your system specific study plan submitted under paragraph (a) of this section, your IDSE report must also include a schematic of your distribution system, the population served; and system type (subpart H or ground water).	'141.602(b)(1)		
If you used the modeling provision under paragraph (a)(2) of this section, you must include final information for the elements described in paragraph (a)(2)(ii) of this section, and a 24-hour time series graph of residence time for each subpart V compliance monitoring location selected.	'141.602(b)(2)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
You must recommend and justify subpart V compliance monitoring locations and timing based on the protocol in §141.605.	'141.602(b)(3)		
Your IDSE report must include an explanation of any deviations from your approved system specific study plan.	'141.602(b)(4)		
Your IDSE report must include the basis (analytical and modeling results) and justification you used to select the recommended subpart V monitoring locations.	'141.602(b)(5)		
You may submit your IDSE report in lieu of your system specific study plan on the schedule identified in §141.600(c) for submission of the system specific study plan if you believe that you have the necessary information by the time that the system specific study plan is due. If you elect this approach, your IDSE report must also include all information required under paragraph (a) of this section.	'141.602(b)(6)		
You must retain a complete copy of your IDSE report submitted under this section for 10 years after the date that you submitted your IDSE report. If the State modifies the subpart V monitoring requirements that you recommended in your IDSE report or if the State approves alternative monitoring locations, you must keep a copy of the State's notification on file for 10 years after the date of the State's notification. You must make the IDSE report and any State notification available for review by the State or the public.	'141.602(b)(7)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
'141.603 40/30 CERTIFICATION			
Eligibility. You are eligible for 40/30 certification if you had no TTHM or HAA5 monitoring violations under subpart L of this part and no individual sample exceeded 0.040 mg/L for TTHM or 0.030 mg/L for HAA5 during an eight consecutive calendar quarter period beginning no earlier than the date specified in this paragraph (a).	'141.603(a)		
If your 40/30 Certification Is Due October 1, 2006 Then your eligibility for 40/30 certification is based on eight consecutive calendar quarters of subpart L compliance monitoring results beginning no earlier than [1] January 2004	'141.603(a)(1)		
If your 40/30 Certification Is Due April 1, 2007 Then your eligibility for 40/30 certification is based on eight consecutive calendar quarters of subpart L compliance monitoring results beginning no earlier than [1] January 2004	'141.603(a)(2)		
If your 40/30 Certification Is Due October 1, 2007 Then your eligibility for 40/30 certification is based on eight consecutive calendar quarters of subpart L compliance monitoring results beginning no earlier than [1] January 2005	'141.603(a)(3)		
If your 40/30 Certification Is Due April 1, 2008 Then your eligibility for 40/30 certification is based on eight consecutive calendar quarters of subpart L compliance monitoring results beginning no earlier than [1] January 2005	'141.603(a)(4)		
[1] Unless you are on reduced monitoring under subpart L of this part and were not required to monitor during the specified period. If you did not monitor during the specified period, you must base your eligibility on compliance samples taken during the 12 months preceding the specified period.	Footnote to '141.603(a)(1) - (4)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
40/30 certification. You must certify to your State that every individual compliance sample taken under subpart L of this part during the periods specified in paragraph (a) of this section were ≤0.040 mg/L for TTHM and ≤0.030 mg/L for HAA5, and that you have not had any TTHM or HAA5 monitoring violations during the period specified in paragraph (a) of this section.	'141.603(b)(1)		
The State may require you to submit compliance monitoring results, distribution system schematics, and/or recommended subpart V compliance monitoring locations in addition to your certification. If you fail to submit the requested information, the State may require standard monitoring under §141.601 or a system specific study under §141.602.	'141.603(b)(2)		
The State may still require standard monitoring under §141.601 or a system specific study under §141.602 even if you meet the criteria in paragraph (a) of this section.	'141.603(b)(3)		
You must retain a complete copy of your certification submitted under this section for 10 years after the date that you submitted your certification. You must make the certification, all data upon which the certification is based, and any State notification available for review by the State or the public.	'141.603(b)(4)		
'141.604 VERY SMALL SYSTEM WAIVERS			
If you serve fewer than 500 people and you have taken TTHM and HAA5 samples under subpart L of this part, you are not required to comply with this subpart unless the State notifies you that you must conduct standard monitoring under §141.601 or a system specific study under §141.602.	'141.604(a)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
If you have not taken TTHM and HAA5 samples under subpart L of this part or if the State notifies you that you must comply with this subpart, you must conduct standard monitoring under §141.601 or a system specific study under §141.602.	'141.604(b)		
'141.605 SUBPART V COMPLIANCE MONITORING LOCATION RECOMMENDATIONS			
Your IDSE report must include your recommendations and justification for where and during what month(s) TTHM and HAA5 monitoring for subpart V of this part should be conducted. You must base your recommendations on the criteria in paragraphs (b) through (e) of this section.	'141.605(a)		
You must select the number of monitoring locations specified in the table in this paragraph (b). You will use these recommended locations as subpart V routine compliance monitoring locations, unless State requires different or additional locations. You should distribute locations throughout the distribution system to the extent possible.	'141.605(b)		
You must recommend subpart V compliance monitoring locations based on standard monitoring results, system specific study results, and subpart L compliance monitoring results. You must follow the protocol in paragraphs (c)(1) through (c)(8) of this section. If required to monitor at more than eight locations, you must repeat the protocol as necessary. If you do not have existing subpart L compliance monitoring results or if you do not have enough existing subpart L compliance monitoring results, you must repeat the protocol, skipping the provisions of paragraphs (c)(3) and (c)(7) of this section as necessary, until you have identified the required total number of monitoring locations.	'141.605(c)		
Location with the highest TTHM LRAA not previously selected as a subpart V monitoring location.	'141.605(c)(1)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
Location with the highest HAA5 LRAA not previously selected as a subpart V monitoring location.	'141.605(c)(2)		
Existing subpart L average residence time compliance monitoring location (maximum residence time compliance monitoring location for ground water systems) with the highest HAA5 LRAA not previously selected as a subpart V monitoring location.	'141.605(c)(3)		
Location with the highest TTHM LRAA not previously selected as a subpart V monitoring location.	'141.605(c)(4)		
Location with the highest TTHM LRAA not previously selected as a subpart V monitoring location.	'141.605(c)(5)		
Location with the highest HAA5 LRAA not previously selected as a subpart V monitoring location.	'141.605(c)(6)		
Existing subpart L average residence time compliance monitoring location (maximum residence time compliance monitoring location for ground water systems) with the highest TTHM LRAA not previously selected as a subpart V monitoring location.	'141.605(c)(7)		
Location with the highest HAA5 LRAA not previously selected as a subpart V monitoring location.	'141.605(c)(8)		
You may recommend locations other than those specified in paragraph (c) of this section if you include a rationale for selecting other locations. If the State approves the alternate locations, you must monitor at these locations to determine compliance under subpart V of this part.	'141(d)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
Your recommended schedule must include subpart V monitoring during the peak historical month for TTHM and HAA5 concentration, unless the State approves another month. Once you have identified the peak historical month, and if you are required to conduct routine monitoring at least quarterly, you must schedule subpart V compliance monitoring at a regular frequency of every 90 days or fewer.	'141(e)		
SUBPART V - STAGE 2 DISINFECTION BYPRODUCTS REQUIREMENTS			
'141.620 GENERAL REQUIREMENTS			
The requirements of subpart V of this part constitute national primary drinking water regulations. The regulations in this subpart establish monitoring and other requirements for achieving compliance with maximum contaminant levels based on locational running annual averages (LRAA) for total trihalomethanes (TTHM) and haloacetic acids (five)(HAA5), and for achieving compliance with maximum residual disinfectant residuals for chlorine and chloramine for certain consecutive systems.	'141.620(a)		
Applicability. You are subject to these requirements if your system is a community water system or a nontransient noncommunity water system that uses a primary or residual disinfectant other than ultraviolet light or delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light.	'141.620(b)		
Schedule. You must comply with the requirements in this subpart on the schedule in the following table based on your system type.	'141.620(c)		
Systems serving $\geq$ 100,000: April 1, 2012	'141.620(c)(1)		
Systems serving 50,000-99,999: October 1, 2012	'141.620(c)(2)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
Systems serving 10,000-49,999: October 1, 2013	'141.620(c)(3)		
Systems serving < 10,000: October 1, 2013 if no *Cryptosporidium* monitoring is required under §141.701(a)(4) OR October 1, 2014 if *Cryptosporidium* monitoring is required under §141.701(a)(4) or (a)(6)	'141.620(c)(4)		
Consecutive system or wholesale system: at the same time as the system with the earliest compliance date in the combined distribution system	'141.620(c)(5)		
Your monitoring frequency is specified in §141.621(a)(2).	'141.620(c)(6)		
If you are required to conduct quarterly monitoring, you must begin monitoring in the first full calendar quarter that includes the compliance date in the table in this paragraph (c).	'141.620(c)(6)(i)		
If you are required to conduct monitoring at a frequency that is less than quarterly, you must begin monitoring in the calendar month recommended in the IDSE report prepared under §141.601 or §141.602 or the calendar month identified in the subpart V monitoring plan developed under §141.622 no later than 12 months after the compliance date in this table.	'141.620(c)(6)(ii)		
If you are required to conduct quarterly monitoring, you must make compliance calculations at the end of the fourth calendar quarter that follows the compliance date and at the end of each subsequent quarter (or earlier if the LRAA calculated based on fewer than four quarters of data would cause the MCL to be exceeded regardless of the monitoring results of subsequent quarters). If you are required to conduct monitoring at a frequency that is less than quarterly, you must make compliance calculations beginning with the first compliance sample taken after the compliance date.	'141.620(c)(7)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
For the purpose of the schedule in this paragraph (c), the State may determine that the combined distribution system does not include certain consecutive systems based on factors such as receiving water from a wholesale system only on an emergency basis or receiving only a small percentage and small volume of water from a wholesale system. The State may also determine that the combined distribution system does not include certain wholesale systems based on factors such as delivering water to a consecutive system only on an emergency basis or delivering only a small percentage and small volume of water to a consecutive system.	'141.620(c)(8)		
Monitoring and compliance. Systems required to monitor quarterly. To comply with subpart V MCLs in §141.64(b)(2), you must calculate LRAAs for TTHM and HAA5 using monitoring results collected under this subpart and determine that each LRAA does not exceed the MCL. If you fail to complete four consecutive quarters of monitoring, you must calculate compliance with the MCL based on the average of the available data from the most recent four quarters. If you take more than one sample per quarter at a monitoring location, you must average all samples taken in the quarter at that location to determine a quarterly average to be used in the LRAA calculation.	'141.620(d)(1)		
Systems required to monitor yearly or less frequently. To determine compliance with subpart V MCLs in §141.64(b)(2), you must determine that each sample taken is less than the MCL. If any sample exceeds the MCL, you must comply with the requirements of §141.625. If no sample exceeds the MCL, the sample result for each monitoring location is considered the LRAA for that monitoring location.	'141.620(d)(2)		
You are in violation of the monitoring requirements for each quarter that a monitoring result would be used in calculating an LRAA if you fail to monitor.	'141.620(e)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
'141.621 ROUTINE MONITORING			
Monitoring. If you submitted an IDSE report, you must begin monitoring at the locations and months you have recommended in your IDSE report submitted under §141.605 following the schedule in §141.620(c), unless the State requires other locations or additional locations after its review. If you submitted a 40/30 certification under §141.603 or you qualified for a very small system waiver under §141.604 or you are a nontransient noncommunity water system serving <10,000, you must monitor at the location(s) and dates identified in your monitoring plan in §141.132(f), updated as required by §141.622.	'141.621(a)(1)		
You must monitor at no fewer than the number of locations identified in this paragraph (a)(2).	'141.621(a)(2)		
If you are an undisinfected system that begins using a disinfectant other than UV light after the dates in subpart U of this part for complying with the Initial Distribution System Evaluation requirements, you must consult with the State to identify compliance monitoring locations for this subpart. You must then develop a monitoring plan under §141.622 that includes those monitoring locations.	'141.621(a)(3)		
Analytical methods. You must use an approved method listed in §141.131 for TTHM and HAA5 analyses in this subpart. Analyses must be conducted by laboratories that have received certification by EPA or the State as specified in §141.131.	'141.621(b)		

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'141.622 SUBPART V MONITORING PLAN			
Subpart V monitoring plan. You must develop and implement a monitoring plan to be kept on file for State and public review. The monitoring plan must contain the elements in paragraphs (a)(1)(i) through (a)(1)(iv) of this section and be complete no later than the date you conduct your initial monitoring under this subpart.	'141.622(a)(1)		
Monitoring locations;	'141.622(a)(1)(i)		
Monitoring dates;	'141.622(a)(1)(ii)		
Compliance calculation procedures; and	'141.622(a)(1)(iii)		
Monitoring plans for any other systems in the combined distribution system if the State has reduced monitoring requirements under the State authority in §142.16(m).	'141.622(a)(1)(iv)		
If you were not required to submit an IDSE report under either §141.601 or §141.602, and you do not have sufficient subpart L monitoring locations to identify the required number of subpart V compliance monitoring locations indicated in §141.605(b), you must identify additional locations by alternating selection of locations representing high TTHM levels and high HAA5 levels until the required number of compliance monitoring locations have been identified. You must also provide the rationale for identifying the locations as having high levels of TTHM or HAA5. If you have more subpart L monitoring locations than required for subpart V compliance monitoring in §141.605(b), you must identify which locations you will use for subpart V compliance monitoring by alternating selection of locations representing high TTHM levels and high HAA5 levels until the required number of subpart V compliance monitoring locations have been identified.	'141.622(a)(2)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
If you are a subpart H system serving > 3,300 people, you must submit a copy of your monitoring plan to the State prior to the date you conduct your initial monitoring under this subpart, unless your IDSE report submitted under subpart U of this part contains all the information required by this section.	'141.622(b)		
You may revise your monitoring plan to reflect changes in treatment, distribution system operations and layout (including new service areas), or other factors that may affect TTHM or HAA5 formation, or for State-approved reasons, after consultation with the State regarding the need for changes and the appropriateness of changes. If you change monitoring locations, you must replace existing compliance monitoring locations with the lowest LRAA with new locations that reflect the current distribution system locations with expected high TTHM or HAA5 levels. The State may also require modifications in your monitoring plan. If you are a subpart H system serving > 3,300 people, you must submit a copy of your modified monitoring plan to the State prior to the date you are required to comply with the revised monitoring plan.	'141.622(c)		
'141.623 REDUCED MONITORING			
You may reduce monitoring to the level specified in the table in this paragraph (a) any time the LRAA is $\leq$0.040 mg/L for TTHM and $\leq$0.030 mg/L for HAA5 at all monitoring locations. You may only use data collected under the provisions of this subpart or subpart L of this part to qualify for reduced monitoring. In addition, the source water annual average TOC level, before any treatment, must be $\leq$4.0 mg/L at each treatment plant treating surface water or ground water under the direct influence of surface water, based on monitoring conducted under either §141.132(b)(1)(iii) or §141.132(d).	'141.623(a)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
You may remain on reduced monitoring as long as the TTHM LRAA $\leq$0.040 mg/L and the HAA5 LRAA $\leq$0.030 mg/L at each monitoring location (for systems with quarterly reduced monitoring) or each TTHM sample $\leq$0.060 mg/L and each HAA5 sample $\leq$0.045 mg/L (for systems with annual or less frequent monitoring). In addition, the source water annual average TOC level, before any treatment, must be $\leq$4.0 mg/L at each treatment plant treating surface water or ground water under the direct influence of surface water, based on monitoring conducted under either §141.132(b)(1)(iii) or §141.132(d).	'141.623(b)		
If the LRAA based on quarterly monitoring at any monitoring location exceeds either 0.040 mg/L for TTHM or 0.030 mg/L for HAA5 or if the annual (or less frequent) sample at any location exceeds either 0.060 mg/L for TTHM or 0.045 mg/L for HAA5, or if the source water annual average TOC level, before any treatment, >4.0 mg/L at any treatment plant treating surface water or ground water under the direct influence of surface water, you must resume routine monitoring under §141.621 or begin increased monitoring if §141.625 applies.	'141.623(c)		
The State may return your system to routine monitoring at the State's discretion.	'141.623(d)		
'141.624 ADDITIONAL REQUIREMENTS FOR CONSECUTIVE SYSTEMS			
If you are a consecutive system that does not add a disinfectant but delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light, you must comply with analytical and monitoring requirements for chlorine and chloramines in §141.131 (c) and §141.132(c)(1) and the compliance requirements in §141.133(c)(1) beginning April 1, 2009, unless required earlier by the State, and report monitoring results under §141.134(c).	'141.624		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
'141.625 CONDITIONS REQUIRING INCREASED MONITORING			
If you are required to monitor at a particular location annually or less frequently than annually under §141.621 or §141.623, you must increase monitoring to dual sample sets once per quarter (taken every 90 days) at all locations if a TTHM sample is >0.080 mg/L or a HAA5 sample is >0.060 mg/L at any location.	'141.625(a)		
You are in violation of the MCL when the LRAA exceeds the subpart V MCLs in §141.64(b)(2), calculated based on four consecutive quarters of monitoring (or the LRAA calculated based on fewer than four quarters of data if the MCL would be exceeded regardless of the monitoring results of subsequent quarters). You are in violation of the monitoring requirements for each quarter that a monitoring result would be used in calculating an LRAA if you fail to monitor.	'141.625(b)		
You may return to routine monitoring once you have conducted increased monitoring for at least four consecutive quarters and the LRAA for every monitoring location is ≤0.060 mg/L for TTHM and ≤0.045 mg/L for HAA5.	'141.625(c)		
'141.626 OPERATIONAL EVALUATION LEVELS			
You have exceeded the operational evaluation level at any monitoring location where the sum of the two previous quarters' TTHM results plus twice the current quarter's TTHM result, divided by 4 to determine an average, exceeds 0.080 mg/L, or where the sum of the two previous quarters' HAA5 results plus twice the current quarter's HAA5 result, divided by 4 to determine an average, exceeds 0.060 mg/L.	'141.626(a)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
If you exceed the operational evaluation level, you must conduct an operational evaluation and submit a written report of the evaluation to the State no later than 90 days after being notified of the analytical result that causes you to exceed the operational evaluation level. The written report must be made available to the public upon request.	'141.626(b)(1)		
Your operational evaluation must include an examination of system treatment and distribution operational practices, including storage tank operations, excess storage capacity, distribution system flushing, changes in sources or source water quality, and treatment changes or problems that may contribute to TTHM and HAA5 formation and what steps could be considered to minimize future exceedences.	'141.626(b)(2)		
You may request and the State may allow you to limit the scope of your evaluation if you are able to identify the cause of the operational evaluation level exceedance.	'141.626(b)(2)(i)		
Your request to limit the scope of the evaluation does not extend the schedule in paragraph (b)(1) of this section for submitting the written report. The State must approve this limited scope of evaluation in writing and you must keep that approval with the completed report.	'141.626(b)(2)(ii)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
'141.627 REQUIREMENTS FOR REMAINING ON REDUCED TTHM AND HAA5 MONITORING BASED ON SUBPART L RESULTS			
You may remain on reduced monitoring after the dates identified in §141.620(c) for compliance with this subpart only if you qualify for a 40/30 certification under §141.603 or have received a very small system waiver under §141.604, plus you meet the reduced monitoring criteria in §141.623(a), and you do not change or add monitoring locations from those used for compliance monitoring under subpart L of this part. If your monitoring locations under this subpart differ from your monitoring locations under subpart L of this part, you may not remain on reduced monitoring after the dates identified in §141.620(c) for compliance with this subpart.	'141.627		
'141.628 REQUIREMENTS FOR REMAINING ON INCREASED TTHM AND HAA5 MONITORING BASED ON SUBPART L RESULTS			
If you were on increased monitoring under §141.132(b)(1), you must remain on increased monitoring until you qualify for a return to routine monitoring under §141.625(c). You must conduct increased monitoring under §141.625 at the monitoring locations in the monitoring plan developed under §141.622 beginning at the date identified in §141.620(c) for compliance with this subpart and remain on increased monitoring until you qualify for a return to routine monitoring under §141.625(c).	'141.628		
'141.629 REPORTING AND RECORDKEEPING REQUIREMENTS			
Reporting. You must report the following information for each monitoring location to the State within 10 days of the end of any quarter in which monitoring is required:	'141.629(a)(1)		
Number of samples taken during the last quarter.	'141.629(a)(1)(i)		
Date and results of each sample taken during the last quarter.	'141.629(a)(1)(ii)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
Arithmetic average of quarterly results for the last four quarters for each monitoring location (LRAA), beginning at the end of the fourth calendar quarter that follows the compliance date and at the end of each subsequent quarter. If the LRAA calculated based on fewer than four quarters of data would cause the MCL to be exceeded regardless of the monitoring results of subsequent quarters, you must report this information to the State as part of the first report due following the compliance date or anytime thereafter that this determination is made. If you are required to conduct monitoring at a frequency that is less than quarterly, you must make compliance calculations beginning with the first compliance sample taken after the compliance date, unless you are required to conduct increased monitoring under §141.625.	'141.629(a)(1)(iii)		
Whether, based on §141.64(b)(2) and this subpart, the MCL was violated at any monitoring location.	'141.629(a)(1)(iv)		
Any operational evaluation levels that were exceeded during the quarter and, if so, the location and date, and the calculated TTHM and HAA5 levels.	'141.629(a)(1)(v)		
If you are a subpart H system seeking to qualify for or remain on reduced TTHM/HAA5 monitoring, you must report the following source water TOC information for each treatment plant that treats surface water or ground water under the direct influence of surface water to the State within 10 days of the end of any quarter in which monitoring is required:	'141.629(a)(2)		
The number of source water TOC samples taken each month during last quarter.	'141.629(a)(2)(i)		
The date and result of each sample taken during last quarter.	'141.629(a)(2)(ii)		
The quarterly average of monthly samples taken during last quarter or the result of the quarterly sample.	'141.629(a)(2)(iii)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FED. REQUIREMENT? (EXPLAIN ON SEPARATE SHEET)
The running annual average (RAA) of quarterly averages from the past four quarters.	'141.629(a)(2)(iv)		
Whether the RAA exceeded 4.0 mg/L.	'141.629(a)(2)(v)		
The State may choose to perform calculations and determine whether the MCL was exceeded or the system is eligible for reduced monitoring in lieu of having the system report that information	'141.629(a)(3)		
Recordkeeping. You must retain any subpart V monitoring plans and your subpart V monitoring results as required by '141.33.	'141.629(b)		

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	EXPLANATION OF STATE POLICIES AND PROCEDURES
PART 142 - NATIONAL PRIMARY DRINKING WATER REGULATIONS IMPLEMENTATION		
'142.14 RECORDS KEPT BY STATES		
Any decisions made pursuant to the provisions of 40 CFR part 141, subparts U and V of this part.	'142.14(a)(8)	
IDSE monitoring plans, plus any modifications required by the State, must be kept until replaced by approved IDSE reports.	'142.14(a)(8)(i)	
IDSE reports and 40/30 certifications, plus any modifications required by the State, must be kept until replaced or revised in their entirety.	'142.14(a)(8)(ii)	
Operational evaluations submitted by a system must be kept for 10 years following submission.	'142.14(a)(8)(iii)	
'142.16 SPECIAL PRIMACY CONDITIONS		
Requirements for States to adopt 40 CFR part 141, subparts U and V. In addition to the general primacy requirements elsewhere in this part, including the requirements that State regulations be at least as stringent as federal requirements, an application for approval of a State program revision that adopts 40 CFR part 141, subparts U and V, must contain a description of how the State will implement a procedure for addressing modification of wholesale system and consecutive system monitoring on a case-by-case basis for part 141 subpart V outside the provisions of §141.29 of this chapter, if the State elects to use such an authority. The procedure must ensure that all systems have at least one compliance monitoring location.	'142.16(m)	

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Appendix B

Rule Requirements

Rule updates and revisions are available on EPA's Web site:
www.epa.gov/safewater/disinfection/stage2/regulations.html.

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trihalomethane exposure and spontaneous abortion. Journal of Exposure Analysis and Environmental Epidemiology. 11(6): 522–531.
Weinberg, H.S., S.W. Krasner, S.D. Richardson and A.D. Thruston, Jr. 2002. The Occurrence of Disinfection By-Products (DBPs) of Health Concern in Drinking Water: Results of a Nationwide DBP Occurrence Study, U.S. Environmental Protection Agency, National Exposure Research Laboratory, Athens, GA. EPA/600/R–02/068. *http://www.epa.gov/athens/publications/EPA600R02068.pdf.*
WHO. 2000. World Health Organization, International Programme on Chemical Safety (IPCS). Environmental Health Criteria 216: Disinfectants and Disinfectant By-products.
Windham, GC, Swan SH, Fenster L, Neutra RR. 1992. Tap or bottled water consumption and spontaneous abortion: a 1986 case-control study in California. Epidemiology. 3:113–9.
Windham GC, Waller K, Anderson M, Fenster L, Mendola P, and Swan S. 2003. Chlorination by-products in drinking water and menstrual cycle function. Environ Health Perspect: doi:10.1289/ehp.5922. *http://ehpnet1.niehs.nih.gov/docs/2003/5922/abstract.html.*
Wrensch, M., S.H. Swan, J. Lipscomb, D.M. Epstein, R.R. Neutra, and L. Fenster. 1992. Spontaneous abortions and birth defects related to tap and bottled water use, San Jose, California, 1980–1985. Epidemiology. 3(2):98–103.
Wright, J.M., J. Schwartz and D.W. Dockery. 2003. Effect of trihalomethane exposure on fetal development. Occupational and Environmental Medicine. 60(3):173–180.
Wright, J.M., J. Schwartz and D.W. Dockery. 2004. The effect of disinfection by-products and mutagenic activity on birth weight and gestational duration. Environmental Health Perspectives. 112(8):920–925.
Xu, X., T.M. Marino, J.D. Laskin and C.P. Weisel. 2002. Pericutaneous absorption of trihalomethanes, haloacetic acids, and haloketones. Toxicology and Applied Pharmacology. 184(1):19–26.
Yang, C.Y., Chiu, H.F, Cheng, M.F., and Tsai, S.S. 1998. Chlorination of Drinking Water and Cancer Mortality in Taiwan. Environ Res, 78:1–6.
Yang, V., B. Cheng, S. Tsai, T. Wu, M. Lin M. and K. Lin. 2000. Association between chlorination of drinking water and adverse pregnancy outcome in Taiwan. Environ. Health. Perspect. 108:765–68.
Yang, C.–Y. 2004. Drinking water chlorination and adverse birth outcomes in Taiwan. Toxicology. 198(2004):249–254.
Zheng, M., S. Andrews, and J. Bolton. 1999. Impacts of medium-pressure UV on THM and HAA formation in pre-UV chlorinated drinking water. Proceedings, Water Quality Technology Conference of the American Water Works Association, Denver, CO.

List of Subjects

40 CFR Part 9

Reporting and recordkeeping requirements.

40 CFR Part 141

Environmental protection, Chemicals, Indians-lands, Incorporation by reference, Intergovernmental relations, Radiation protection, Reporting and recordkeeping requirements, Water supply.

40 CFR Part 142

Environmental protection, Administrative practice and procedure, Chemicals, Indians-lands, Radiation protection, Reporting and recordkeeping requirements, Water supply.

Dated: December 15, 2005.

Stephen L. Johnson,

Administrator.

■ For the reasons set forth in the preamble, title 40 chapter I of the Code of Federal Regulations is amended as follows:

PART 9—OMB APPROVALS UNDER THE PAPERWORK REDUCTION ACT

■ 1. The authority citation for part 9 continues to read as follows:

Authority: 7 U.S.C. 135 *et seq.*, 136–136y; 15 U.S.C. 2001, 2003, 2005, 2006, 2601–2671; 21 U.S.C. 331j, 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 *et seq.*, 1311, 1313d, 1314, 1318, 1321, 1326, 1330, 1342, 1344, 1345 (d) and (e), 1361; Executive Order 11735, 38 FR 21243, 3 CFR, 1971–1975 Comp. p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–1, 300j–2, 300j–3, 300j–4, 300j–9, 1857 *et seq.*, 6901–6992k, 7401–7671q, 7542, 9601–9657, 11023, 11048.

■ 2. In § 9.1 the table is amended as follows:

■ a. Under the heading ''National Primary Drinking Water Regulations Implementation'' by adding entries in numerical order for ''§ 141.600–141.605, 141.620–141.626, 141.629''.

■ b. Under the heading ''National Primary Drinking Water Regulations Implementation'' by removing entries ''§ 142.14(a),142.14(a)–(d)(3)'' and adding entries in numerical order for ''142.14(a) (1)–(7), 142.14(a)(8), 142.14(b)–(d) and 142.16(m)'' as follows:

§ 9.1 OMB approvals under the Paperwork Reduction Act.

* * * * *

40 CFR citation	OMB control No.
* * * * *	
National Primary Drinking Water Regulations	
* * * * *	
141.600–141.605	2040–0265
141.620–141.626	2040–0265
141.629	2040–0265
National Primary Drinking Water Regulations Implementation	
* * * * *	
142.14(a)(1)–(7)	2040–0265
142.14(a)(8)	2040–0265
142.14(b)–(d)	2040–0090
* * * * *	
142.16(m)	2040–0265

* * * * *

PART 141—NATIONAL PRIMARY DRINKING WATER REGULATIONS

■ 3. The authority citation for part 141 continues to read as follows:

Authority: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

■ 4. Section 141.2 is amended by adding, in alphabetical order, definitions for ''Combined distribution system'', ''Consecutive system'', ''Dual sample sets'', ''Finished water'', ''GAC20'', ''Locational running annual average'', and ''Wholesale system'' and revising the definition of ''GAC10'' to read as follows:

§ 141.2 Definitions.

* * * * *

Combined distribution system is the interconnected distribution system consisting of the distribution systems of wholesale systems and of the consecutive systems that receive finished water.

* * * * *

Consecutive system is a public water system that receives some or all of its finished water from one or more wholesale systems. Delivery may be through a direct connection or through the distribution system of one or more consecutive systems.

* * * * *

Dual sample set is a set of two samples collected at the same time and same location, with one sample analyzed for TTHM and the other

sample analyzed for HAA5. Dual sample sets are collected for the purposes of conducting an IDSE under subpart U of this part and determining compliance with the TTHM and HAA5 MCLs under subpart V of this part.

* * * * *

Finished water is water that is introduced into the distribution system of a public water system and is intended for distribution and consumption without further treatment, except as treatment necessary to maintain water quality in the distribution system (*e.g.*, booster disinfection, addition of corrosion control chemicals).

* * * * *

GAC10 means granular activated carbon filter beds with an empty-bed contact time of 10 minutes based on average daily flow and a carbon reactivation frequency of every 180 days, except that the reactivation frequency for GAC10 used as a best available technology for compliance with subpart V MCLs under § 141.64(b)(2) shall be 120 days.

GAC20 means granular activated carbon filter beds with an empty-bed contact time of 20 minutes based on average daily flow and a carbon reactivation frequency of every 240 days.

* * * * *

Locational running annual average (LRAA) is the average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

* * * * *

Wholesale system is a public water system that treats source water as necessary to produce finished water and then delivers some or all of that finished water to another public water system. Delivery may be through a direct connection or through the distribution system of one or more consecutive systems.

§ 141.12 [Removed]

■ 5. Section 141.12 is removed and reserved.

§ 141.30 [Removed]

■ 6. Section 141.30 is removed.

§ 141.32 [Removed]

■ 7. Section 141.32 is removed and reserved.

■ 8. Section 141.33 is amended by revising the first sentence of paragraph (a) introductory text and adding paragraph (f) to read as follows:

§ 141.33 Record maintenance.

* * * * *

(a) Records of microbiological analyses and turbidity analyses made pursuant to this part shall be kept for not less than 5 years. * * *

* * * * *

(f) Copies of monitoring plans developed pursuant to this part shall be kept for the same period of time as the records of analyses taken under the plan are required to be kept under paragraph (a) of this section, except as specified elsewhere in this part.

■ 9. Section 141.53 is amended by revising the table to read as follows:

§ 141.53 Maximum contaminant level goals for disinfection byproducts.

* * * * *

Disinfection byproduct	MCLG (mg/L)
Bromodichloromethane	zero
Bromoform	zero
Bromate	zero
Chlorite	0.8
Chloroform	0.07
Dibromochloromethane	0.06
Dichloroacetic acid	zero
Monochloroacetic acid	0.07
Trichloroacetic acid	0.02

■ 10. Section 141.64 is revised to read as follows:

§ 141.64 Maximum contaminant levels for disinfection byproducts.

(a) *Bromate and chlorite.* The maximum contaminant levels (MCLs) for bromate and chlorite are as follows:

Disinfection byproduct	MCL (mg/L)
Bromate	0.010
Chlorite	1.0

(1) *Compliance dates for CWSs and NTNCWSs.* Subpart H systems serving 10,000 or more persons must comply with this paragraph (a) beginning January 1, 2002. Subpart H systems serving fewer than 10,000 persons and systems using only ground water not under the direct influence of surface water must comply with this paragraph (a) beginning January 1, 2004.

(2) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for bromate and chlorite identified in this paragraph (a):

Disinfection byproduct	Best available technology
Bromate	Control of ozone treatment process to reduce production of bromate
Chlorite	Control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels

(b) TTHM and HAA5. (1) Subpart L—RAA compliance. (i) Compliance dates. Subpart H systems serving 10,000 or more persons must comply with this paragraph (b)(1) beginning January 1, 2002. Subpart H systems serving fewer than 10,000 persons and systems using only ground water not under the direct influence of surface water must comply with this paragraph (b)(1) beginning January 1, 2004. All systems must comply with these MCLs until the date specified for subpart V compliance in § 141.620(c).

Disinfection byproduct	MCL (mg/L)
Total trihalomethanes (TTHM)	0.080
Haloacetic acids (five) (HAA5)	0.060

(ii) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for TTHM and HAA5 identified in this paragraph (b)(1):

Disinfection byproduct	Best available technology
Total trihalomethanes (TTHM) and Haloacetic acids (five) (HAA5).	Enhanced coagulation or enhanced softening or GAC10, with chlorine as the primary and residual disinfectant

(2) Subpart V—LRAA compliance. (i) Compliance dates. The subpart V MCLs for TTHM and HAA5 must be complied with as a locational running annual average at each monitoring location beginning the date specified for subpart V compliance in § 141.620(c).

Disinfection byproduct	MCL (mg/L)
Total trihalomethanes (TTHM)	0.080
Haloacetic acids (five) (HAA5)	0.060

(ii) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for TTHM and HAA5 identified in this paragraph (b)(2)

for all systems that disinfect their source water:

Disinfection by-product	Best available technology
Total trihalomethanes (TTHM) and Haloacetic acids (five) (HAA5).	Enhanced coagulation or enhanced softening, plus GAC10; or nanofiltration with a molecular weight cutoff ≤1000 Daltons; or GAC20

(iii) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for TTHM and HAA5 identified in this paragraph (b)(2) for consecutive systems and applies only to the disinfected water that consecutive systems buy or otherwise receive:

Disinfection by-product	Best available technology
Total trihalomethanes (TTHM) and Haloacetic acids (five) (HAA5).	Systems serving ≥10,000: Improved distribution system and storage tank management to reduce residence time, plus the use of chloramines for disinfectant residual maintenance Systems serving <10,000: Improved distribution system and storage tank management to reduce residence time

■ 11. Section 141.131 is amended as follows:
■ a. By revising paragraph (a),
■ b. By revising paragraphs (b)(1) and (b)(2),
■ c. By revising the table in paragraph (c)(1),
■ d. By revising paragraphs (d)(2), (d)(3), (d)(4)(i), and (d)(4)(ii),
■ e. By adding paragraph (d)(6).

§ 141.131 Analytical requirements.

(a) *General.* (1) Systems must use only the analytical methods specified in this section, or their equivalent as approved by EPA, to demonstrate compliance with the requirements of this subpart and with the requirements of subparts U and V of this part. These methods are effective for compliance monitoring February 16, 1999, unless a different effective date is specified in this section or by the State.

(2) The following documents are incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at EPA's Drinking Water Docket, 1301 Constitution Avenue, NW., EPA West, Room B102, Washington, DC 20460, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.* EPA Method 552.1 is in Methods for the Determination of Organic Compounds in Drinking Water-Supplement II, USEPA, August 1992, EPA/600/R–92/129 (available through National Information Technical Service (NTIS), PB92–207703). EPA Methods 502.2, 524.2, 551.1, and 552.2 are in Methods for the Determination of Organic Compounds in Drinking Water-Supplement III, USEPA, August 1995, EPA/600/R–95/131 (available through NTIS, PB95–261616). EPA Method 300.0 is in Methods for the Determination of Inorganic Substances in Environmental Samples, USEPA, August 1993, EPA/600/R–93/100 (available through NTIS, PB94–121811). EPA Methods 300.1 and 321.8 are in Methods for the Determination of Organic and Inorganic Compounds in Drinking Water, Volume 1, USEPA, August 2000, EPA 815–R–00–014 (available through NTIS, PB2000–106981). EPA Method 317.0, Revision 2.0, ''Determination of Inorganic Oxyhalide Disinfection By-Products in Drinking Water Using Ion Chromatography with the Addition of a Postcolumn Reagent for Trace Bromate Analysis,'' USEPA, July 2001, EPA 815–B–01–001, EPA Method 326.0, Revision 1.0, ''Determination of Inorganic Oxyhalide Disinfection By-Products in Drinking Water Using Ion Chromatography Incorporating the Addition of a Suppressor Acidified Postcolumn Reagent for Trace Bromate Analysis,'' USEPA, June 2002, EPA 815–R–03–007, EPA Method 327.0, Revision 1.1, ''Determination of Chlorine Dioxide and Chlorite Ion in Drinking Water Using Lissamine Green B and Horseradish Peroxidase with Detection by Visible Spectrophotometry,'' USEPA, May 2005, EPA 815–R–05–008 and EPA Method 552.3, Revision 1.0, ''Determination of Haloacetic Acids and Dalapon in Drinking Water by Liquid-liquid Microextraction, Derivatization, and Gas Chromatography with Electron Capture Detection,'' USEPA, July 2003, EPA–815–B–03–002 can be accessed and downloaded directly on-line at *http://www.epa.gov/safewater/methods/sourcalt.html.* EPA Method 415.3, Revision 1.1, ''Determination of Total Organic Carbon and Specific UV Absorbance at 254 nm in Source Water and Drinking Water,'' USEPA, February 2005, EPA/600/R–05/055 can be accessed and downloaded directly on-line at *www.epa.gov/nerlcwww/ordmeth.htm.* Standard Methods 4500–Cl D, 4500–Cl E, 4500–Cl F, 4500–Cl G, 4500–Cl H, 4500–Cl I, 4500–ClO_2 D, 4500–ClO_2 E, 6251 B, and 5910 B shall be followed in accordance with Standard Methods for the Examination of Water and Wastewater, 19th or 20th Editions, American Public Health Association, 1995 and 1998, respectively. The cited methods published in either edition may be used. Standard Methods 5310 B, 5310 C, and 5310 D shall be followed in accordance with the Supplement to the 19th Edition of Standard Methods for the Examination of Water and Wastewater, or the Standard Methods for the Examination of Water and Wastewater, 20th Edition, American Public Health Association, 1996 and 1998, respectively. The cited methods published in either edition may be used. Copies may be obtained from the American Public Health Association, 1015 Fifteenth Street, NW., Washington, DC 20005. Standard Methods 4500–Cl D–00, 4500–Cl E–00, 4500–Cl F–00, 4500–Cl G–00, 4500–Cl H–00, 4500–Cl I–00, 4500–ClO_2 E–00, 6251 B–94, 5310 B–00, 5310 C–00, 5310 D–00 and 5910 B–00 are available at *http://www.standardmethods.org* or at EPA's Water Docket. The year in which each method was approved by the Standard Methods Committee is designated by the last two digits in the method number. The methods listed are the only Online versions that are IBR-approved. ASTM Methods D 1253–86 and D 1253–86 (Reapproved 1996) shall be followed in accordance with the Annual Book of ASTM Standards, Volume 11.01, American Society for Testing and Materials International, 1996 or any ASTM edition containing the IBR-approved version of the method may be used. ASTM Method D1253–03 shall be followed in accordance with the Annual Book of ASTM Standards, Volume 11.01, American Society for Testing and Materials International, 2004 or any ASTM edition containing the IBR-approved version of the method may be used. ASTM Method D 6581–00 shall be followed in accordance with the Annual Book of ASTM Standards, Volume 11.01, American Society for Testing and Materials International, 2001 or any ASTM edition containing the IBR-approved version of the method may be used; copies may be obtained from the American Society for Testing and

Materials International, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959.

(b) Disinfection byproducts. (1) Systems must measure disinfection byproducts by the methods (as modified by the footnotes) listed in the following table:

APPROVED METHODS FOR DISINFECTION BYPRODUCT COMPLIANCE MONITORING

Contaminant and methodology [1]	EPA method	Standard method [2]	SM online [9]	ASTM method [3]
TTHM				
P&T/GC/EICD & PID	502.2 [4]			
P&T/GC/MS	524.2			
LLE/GC/ECD	551.1			
HAA5				
LLE (diazomethane)/GC/ECD		6251 B [5]	6251 B–94	
SPE (acidic methanol)/GC/ECD	552.1 [5]			
LLE (acidic methanol)/GC/ECD	552.2, 552.3			
Bromate				
Ion chromatography	300.1			D 6581–00
Ion chromatography & post column reaction.	317.0 Rev 2.0 [6], 326.0 [6]			
IC/ICP–MS	321.8 [6 7]			
Chlorite				
Amperometric titration		4500–ClO_2 E [8]	4500–ClO_2 E–00 [8]	
Spectrophotometry	327.0 Rev 1.1 [8]			
Ion chromatography	300.0, 300.1, 317.0 Rev 2.0, 326.0.			D 6581–00

[1] P&T = purge and trap; GC = gas chromatography; EICD = electrolytic conductivity detector; PID = photoionization detector; MS = mass spectrometer; LLE = liquid/liquid extraction; ECD = electron capture detector; SPE = solid phase extraction; IC = ion chromatography; ICP–MS = inductively coupled plasma/mass spectrometer.

[2] 19th and 20th editions of Standard Methods for the Examination of Water and Wastewater, 1995 and 1998, respectively, American Public Health Association; either of these editions may be used.

[3] Annual Book of ASTM Standards, 2001 or any year containing the cited version of the method, Vol 11.01.

[4] If TTHMs are the only analytes being measured in the sample, then a PID is not required.

[5] The samples must be extracted within 14 days of sample collection.

[6] Ion chromatography & post column reaction or IC/ICP-MS must be used for monitoring of bromate for purposes of demonstrating eligibility of reduced monitoring, as prescribed in § 141.132(b)(3)(ii).

[7] Samples must be preserved at the time of sampling with 50 mg ethylenediamine (EDA)/L of sample and must be analyzed within 28 days.

[8] Amperometric titration or spectrophotometry may be used for routine daily monitoring of chlorite at the entrance to the distribution system, as prescribed in § 141.132(b)(2)(i)(A). Ion chromatography must be used for routine monthly monitoring of chlorite and additional monitoring of chlorite in the distribution system, as prescribed in § 141.132(b)(2)(i)(B) and (b)(2)(ii).

[9] The Standard Methods Online version that is approved is indicated by the last two digits in the method number which is the year of approval by the Standard Method Committee. Standard Methods Online are available at *http://www.standardmethods.org.*

(2) Analyses under this section for disinfection byproducts must be conducted by laboratories that have received certification by EPA or the State, except as specified under paragraph (b)(3) of this section. To receive certification to conduct analyses for the DBP contaminants in §§ 141.64, 141.135, and subparts U and V of this part, the laboratory must:

(i) Analyze Performance Evaluation (PE) samples that are acceptable to EPA or the State at least once during each consecutive 12 month period by each method for which the laboratory desires certification.

(ii) Until March 31, 2007, in these analyses of PE samples, the laboratory must achieve quantitative results within the acceptance limit on a minimum of 80% of the analytes included in each PE sample. The acceptance limit is defined as the 95% confidence interval calculated around the mean of the PE study between a maximum and minimum acceptance limit of +/− 50% and +/− 15% of the study mean.

(iii) Beginning April 1, 2007, the laboratory must achieve quantitative results on the PE sample analyses that are within the following acceptance limits:

DBP	Acceptance limits (percent of true value)	Comments
TTHM		
Chloroform	±20	Laboratory must meet all 4 individual THM acceptance limits in order to successfully pass a PE sample for TTHM
Bromodichloromethane	±20	
Dibromochloromethane	±20	
Bromoform	±20	
HAA5		
Monochloroacetic Acid	±40	Laboratory must meet the acceptance limits for 4 out of 5 of the HAA5 compounds in order to successfully pass a PE sample for HAA5
Dichloroacetic Acid	±40	
Trichloroacetic Acid	±40	
Monobromoacetic Acid	±40	
Dibromoacetic Acid	±40	
Chlorite	±30	

DBP	Acceptance limits (percent of true value)	Comments
Bromate	±30	

(iv) Beginning April 1, 2007, report quantitative data for concentrations at least as low as the ones listed in the following table for all DBP samples analyzed for compliance with §§ 141.64, 141.135, and subparts U and V of this part:

DBP	Minimum reporting level (mg/L) [1]	Comments
TTHM [2]		
Chloroform	0.0010	
Bromodichloromethane	0.0010	
Dibromochloromethane	0.0010	
Bromoform	0.0010	
HAA5 [2]		
Monochloroacetic Acid	0.0020	
Dichloroacetic Acid	0.0010	
Trichloroacetic Acid	0.0010	
Monobromoacetic Acid	0.0010	
Dibromoacetic Acid	0.0010	
Chlorite	0.020	Applicable to monitoring as prescribed in § 141.132(b)(2)(1)(B) and (b)(2)(ii).
Bromate	0.0050 or 0.0010	Laboratories that use EPA Methods 317.0 Revision 2.0, 326.0 or 321.8 must meet a 0.0010 mg/L MRL for bromate.

[1] The calibration curve must encompass the regulatory minimum reporting level (MRL) concentration. Data may be reported for concentrations lower than the regulatory MRL as long as the precision and accuracy criteria are met by analyzing an MRL check standard at the lowest reporting limit chosen by the laboratory. The laboratory must verify the accuracy of the calibration curve at the MRL concentration by analyzing an MRL check standard with a concentration less than or equal to 110% of the MRL with each batch of samples. The measured concentration for the MRL check standard must be ±50% of the expected value, if any field sample in the batch has a concentration less than 5 times the regulatory MRL. Method requirements to analyze higher concentration check standards and meet tighter acceptance criteria for them must be met in addition to the MRL check standard requirement.

[2] When adding the individual trihalomethane or haloacetic acid concentrations to calculate the TTHM or HAA5 concentrations, respectively, a zero is used for any analytical result that is less than the MRL concentration for that DBP, unless otherwise specified by the State.

* * * * *

(c) * * *

(1) * * *

Methodology	SM (19th or 20th ed)	SM Online [2]	ASTM method	EPA method	Residual measured [1]			
					Free Cl_2	Combined Cl_2	Total Cl_2	ClO_2
Amperometric Titration	4500–C D	4500–C D–00	D 1253–86 (96), 03		X	X	X	
Low Level Amperometric Titration.	4500–C E	4500–C E–00					X	
DPD Ferrous Titrimetric	4500–C F	4500–C F–00			X	X	X	
DPD Colorimetric	4500–C G	4500–C G–00			X	X	X	
Syringaldazine (FACTS)	4500–C H	4500–C H–00			X			
Iodometric Electrode	4500–C I	4500–C I–00					X	
DPD	4500–C O_2 D							X
Amperometric Method II	4500–C O_2 E	4500–C O_2 E–00						X
Lissamine Green Spectrophotometric.				327.0 Rev 1.1				X

[1] X indicates method is approved for measuring specified disinfectant residual. Free chlorine or total chlorine may be measured for demonstrating compliance with the chlorine MRDL and combined chlorine, or total chlorine may be measured for demonstrating compliance with the chloramine MRDL.

[2] The Standard Methods Online version that is approved is indicated by the last two digits in the method number which is the year of approval by the Standard Method Committee. Standard Methods Online are available at *http://www.standardmethods.org.*

* * * * *

(d) * * *

(2) *Bromide.* EPA Methods 300.0, 300.1, 317.0 Revision 2.0, 326.0, or ASTM D 6581–00.

(3) *Total Organic Carbon (TOC).* Standard Method 5310 B or 5310 B–00 (High-Temperature Combustion

Method) or Standard Method 5310 C or 5310 C–00 (Persulfate-Ultraviolet or Heated-Persulfate Oxidation Method) or Standard Method 5310 D or 5310 D–00 (Wet-Oxidation Method) or EPA Method 415.3 Revision 1.1. Inorganic carbon must be removed from the samples prior to analysis. TOC samples may not be filtered prior to analysis. TOC samples must be acidified at the time of sample collection to achieve pH less than or equal to 2 with minimal addition of the acid specified in the method or by the instrument manufacturer. Acidified TOC samples must be analyzed within 28 days.

(4) * * *

(i) Dissolved Organic Carbon (DOC). Standard Method 5310 B or 5310 B–00 (High-Temperature Combustion Method) or Standard Method 5310 C or 5310 C–00 (Persulfate-Ultraviolet or Heated-Persulfate Oxidation Method) or Standard Method 5310 D or 5310 D–00 (Wet-Oxidation Method) or EPA Method 415.3 Revision 1.1. DOC samples must be filtered through the 0.45 μm pore-diameter filter as soon as practical after sampling, not to exceed 48 hours. After filtration, DOC samples must be acidified to achieve pH less than or equal to 2 with minimal addition of the acid specified in the method or by the instrument manufacturer. Acidified DOC samples must be analyzed within 28 days of sample collection. Inorganic carbon must be removed from the samples prior to analysis. Water passed through the filter prior to filtration of the sample must serve as the filtered blank. This filtered blank must be analyzed using procedures identical to those used for analysis of the samples and must meet the following criteria: DOC < 0.5 mg/L.

(ii) Ultraviolet Absorption at 254 nm (UV_{254}). Standard Method 5910 B or 5910 B–00 (Ultraviolet Absorption Method) or EPA Method 415.3 Revision 1.1. UV absorption must be measured at 253.7 nm (may be rounded off to 254 nm). Prior to analysis, UV_{254} samples must be filtered through a 0.45 μm pore-diameter filter. The pH of UV_{254} samples may not be adjusted. Samples must be analyzed as soon as practical after sampling, not to exceed 48 hours.

* * * * *

(6) *Magnesium.* All methods allowed in § 141.23(k)(1) for measuring magnesium.

■ 12. Section 141.132 is amended by:

■ a. Redesignating paragraphs (b)(1)(iii) through (b)(1)(v) as paragraphs (b)(1)(iv) through (b)(1)(vi);

■ b. Adding a new paragraph (b)(1)(iii);

■ c. Revising newly redesignated paragraph (b)(1)(iv); and

■ d. Revising paragraph (b)(3)(ii).

The addition and revisions read as follows:

§ 141.132 Monitoring requirements.

* * * * *

(b) * * *

(1) * * *

(iii) *Monitoring requirements for source water TOC.* In order to qualify for reduced monitoring for TTHM and HAA5 under paragraph (b)(1)(ii) of this section, subpart H systems not monitoring under the provisions of paragraph (d) of this section must take monthly TOC samples every 30 days at a location prior to any treatment, beginning April 1, 2008 or earlier, if specified by the State. In addition to meeting other criteria for reduced monitoring in paragraph (b)(1)(ii) of this section, the source water TOC running annual average must be ≤4.0 mg/L (based on the most recent four quarters of monitoring) on a continuing basis at each treatment plant to reduce or remain on reduced monitoring for TTHM and HAA5. Once qualified for reduced monitoring for TTHM and HAA5 under paragraph (b)(1)(ii) of this section, a system may reduce source water TOC monitoring to quarterly TOC samples taken every 90 days at a location prior to any treatment.

(iv) Systems on a reduced monitoring schedule may remain on that reduced schedule as long as the average of all samples taken in the year (for systems which must monitor quarterly) or the result of the sample (for systems which must monitor no more frequently than annually) is no more than 0.060 mg/L and 0.045 mg/L for TTHMs and HAA5, respectively. Systems that do not meet these levels must resume monitoring at the frequency identified in paragraph (b)(1)(i) of this section (minimum monitoring frequency column) in the quarter immediately following the monitoring period in which the system exceeds 0.060 mg/L or 0.045 mg/L for TTHMs and HAA5, respectively. For systems using only ground water not under the direct influence of surface water and serving fewer than 10,000 persons, if either the TTHM annual average is >0.080 mg/L or the HAA5 annual average is >0.060 mg/L, the system must go to the increased monitoring identified in paragraph (b)(1)(i) of this section (sample location column) in the quarter immediately following the monitoring period in which the system exceeds 0.080 mg/L or 0.060 mg/L for TTHMs or HAA5 respectively.

* * * * *

(3) ***

(i) ***

(ii) Reduced monitoring.

(A) Until March 31, 2009, systems required to analyze for bromate may reduce monitoring from monthly to quarterly, if the system's average source water bromide concentration is less than 0.05 mg/L based on representative monthly bromide measurements for one year. The system may remain on reduced bromate monitoring until the running annual average source water bromide concentration, computed quarterly, is equal to or greater than 0.05 mg/L based on representative monthly measurements. If the running annual average source water bromide concentration is ≥0.05 mg/L, the system must resume routine monitoring required by paragraph (b)(3)(i) of this section in the following month.

(B) Beginning April 1, 2009, systems may no longer use the provisions of paragraph (b)(3)(ii)(A) of this section to qualify for reduced monitoring. A system required to analyze for bromate may reduce monitoring from monthly to quarterly, if the system's running annual average bromate concentration is ≤0.0025 mg/L based on monthly bromate measurements under paragraph (b)(3)(i) of this section for the most recent four quarters, with samples analyzed using Method 317.0 Revision 2.0, 326.0 or 321.8. If a system has qualified for reduced bromate monitoring under paragraph (b)(3)(ii)(A) of this section, that system may remain on reduced monitoring as long as the running annual average of quarterly bromate samples ≤0.0025 mg/L based on samples analyzed using Method 317.0 Revision 2.0, 326.0, or 321.8. If the running annual average bromate concentration is >0.0025 mg/L, the system must resume routine monitoring required by paragraph (b)(3)(i) of this section.

* * * * *

§ 141.133 [Amended]

■ 13. Section 141.133 is amended in the last sentence of paragraph (d) by revising the reference ''§ 141.32'' to read ''subpart Q of this part''.

■ 14. Section 141.135 is amended by revising paragraph (a)(3)(ii) to read as follows:

§ 141.135 Treatment technique for control of disinfection byproduct (DBP) precursors.

(a) * * *

(3) * * *

(ii) Softening that results in removing at least 10 mg/L of magnesium hardness (as $CaCO_3$), measured monthly according to § 141.131(d)(6) and calculated quarterly as a running annual average.

* * * * *

■ 15. Section 141.151 is amended by revising paragraph (d) to read as follows:

§ 141.151 Purpose and applicability of this subpart.

* * * * *

(d) For the purpose of this subpart, detected means: at or above the levels prescribed by § 141.23(a)(4) for inorganic contaminants, at or above the levels prescribed by § 141.24(f)(7) for the contaminants listed in § 141.61(a), at or above the levels prescribed by § 141.24(h)(18) for the contaminants listed in § 141.61(c), at or above the levels prescribed by § 141.131(b)(2)(iv) for the contaminants or contaminant groups listed in § 141.64, and at or above the levels prescribed by § 141.25(c) for radioactive contaminants.

* * * * *

■ 16. Section 141.153 is amended by revising paragraphs (d)(4)(iv)(B) and (d)(4)(iv)(C) to read as follows:

§ 141.153 Content of the reports.

* * * * *

(d) * * *

(4) * * *

(iv) * * *

(B) When compliance with the MCL is determined by calculating a running annual average of all samples taken at a monitoring location: the highest average of any of the monitoring locations and the range of all monitoring locations expressed in the same units as the MCL. For the MCLs for TTHM and HAA5 in § 141.64(b)(2), systems must include the highest locational running annual average for TTHM and HAA5 and the range of individual sample results for all monitoring locations expressed in the same units as the MCL. If more than one location exceeds the TTHM or HAA5 MCL, the system must include the locational running annual averages for all locations that exceed the MCL.

(C) When compliance with the MCL is determined on a system-wide basis by calculating a running annual average of all samples at all monitoring locations: the average and range of detection expressed in the same units as the MCL. The system is required to include individual sample results for the IDSE conducted under subpart U of this part when determining the range of TTHM and HAA5 results to be reported in the annual consumer confidence report for the calendar year that the IDSE samples were taken.

* * * * *

Appendix A to Subpart Q [Amended]

■ 17. In Subpart Q, Appendix A is amended as follows:

■ a. In entry I.B.2. in the fifth column, remove the endnote citation ''9'' and add in its place ''11'';

■ b. In entry I.B.11. in the fourth column, remove the endnote citation ''10'' and add in its place ''12'';

■ c. In entry I.B.12. in the fourth column, remove the endnote citation ''10'' and add in its place ''12'';

■ d. In entry I.G. in the first column, remove the endnote citation ''11'' and add in its place ''13'';

■ e. In entry I.G.1. in the third column, remove the endnote citation ''12'' and add in its place ''14'' and remove the citation in the third column ''141.12, 141.64(a)'' and in its place add ''141.64(b)'' (keeping the endnote citation to endnote 14) and in the fifth column remove the citation ''141.30'' and add in numerical order the citations ''141.600–141.605, 141.620–141.629'';

■ f. In entry I.G.2. revise the entry ''141.64(a)'' to read ''141.64(b)'' and in the fifth column add in numerical order the citations ''141.600–141.605, 141.620–141.629''.

■ g. In entry I.G.7. in the fourth column, remove the endnote citation ''13'' and add in its place ''15'';

■ h. In entry I.G.8. in the second column, remove the endnote citation ''14'' and add in its place ''16'';

■ i. In entry II. in the first column, remove the endnote citation ''15'' and add in its place ''17'';

■ j. In entry III.A. in the third column, remove the endnote citation ''16'' and add in its place ''18'';

■ k. In entry III.B in the third column, remove the endnote citation ''17'' and add in its place ''19'';

■ l. In entry IV.E. in the first column, remove the endnote citation ''18'' and add in its place 20''; and

■ m. In entry III.F in the second column, remove the endnote citation ''19'' and add in its place ''21''.

■ 18. In Subpart Q, Appendix A, remove endnote 14 and add in its place, to read as follows: ''14.§§ 141.64(b)(1) 141.132(a)–(b) apply until §§ 141.620–141.630 take effect under the schedule in § 141.620(c).

■ 19–20. In Subpart Q, Appendix B is amended as follows:

■ a. In entry G.77. in the third column, remove the endnote citation ''16'' and add in its place ''17'';

■ b. In entry H. (the title) in the first column, remove the endnote citation ''17'' and add in its place ''18'';

■ c. In entry H.80. in the third column, remove the endnote citations ''17, 18'' and add in its place ''19, 20'' and remove the number ''0.10/'';

■ d. In entry H.81. in the third column, remove the endnote citation ''20'' and add in its place ''21''; and

■ e. In entry H.84. in the second column, remove the endnote citation ''21'' and add in its place ''22'' and in the third column remove the endnote citation ''22'' and add in its place ''23''.

■ f. Revise endnotes 18 and 19.

The revisions read as follows:

Appendix B to Subpart Q

* * * * *

■ 18. Surface water systems and ground water systems under the direct influence of surface water are regulated under subpart H of 40 CFR 141. Subpart H community and non-transient non-community systems serving ≥10,000 must comply with subpart L DBP MCLs and disinfectant maximum residual disinfectant levels (MRDLs) beginning January 1, 2002. All other community and non-transient non-community systems must comply with subpart L DBP MCLs and disinfectant MRDLs beginning January 1, 2004. Subpart H transient non-community systems serving ≥10,000 that use chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2002. All other transient non-community systems that use chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2004.

■ 19. Community and non-transient non-community systems must comply with subpart V TTHM and HAA5 MCLs of 0.080 mg/L and 0.060 mg/L, respectively (with compliance calculated as a locational running annual average) on the schedule in § 141.620.

* * * * *

■ 21. Part 141 is amended by adding new subpart U to read as follows:

Subpart U—Initial Distribution System Evaluations

Subpart U—Initial Distribution System Evaluations

§ 141.600 General requirements.

(a) The requirements of subpart U of this part constitute national primary drinking water regulations. The regulations in this subpart establish monitoring and other requirements for identifying subpart V compliance monitoring locations for determining compliance with maximum contaminant levels for total

trihalomethanes (TTHM) and haloacetic acids (five)(HAA5). You must use an Initial Distribution System Evaluation (IDSE) to determine locations with representative high TTHM and HAA5 concentrations throughout your distribution system. IDSEs are used in conjunction with, but separate from, subpart L compliance monitoring, to identify and select subpart V compliance monitoring locations.

(b) *Applicability.* You are subject to these requirements if your system is a community water system that uses a primary or residual disinfectant other than ultraviolet light or delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light; or if your system is a nontransient noncommunity water system that serves at least 10,000 people and uses a primary or residual disinfectant other than ultraviolet light or delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light.

(c) *Schedule.* (1) You must comply with the requirements of this subpart on the schedule in the table in this paragraph (c)(1).

If you serve this population	You must submit your standard monitoring plan or system specific study plan [1] or 40/30 certification [2] to the State by or receive very small system waiver from State	You must complete your standard monitoring or system specific study by	You must submit your IDSE report to the State by [3]
Systems that are not part of a combined distribution system and systems that serve the largest population in the combined distribution system			
(i) ≥100,000	October 1, 2006	September 30, 2008	January 1, 2009.
(ii) 50,000–99,999	April 1, 2007	March 31, 2009	July 1, 2009.
(iii) 10,000–49,999	October 1, 2007	September 30, 2009	January 1, 2010.
(iv) <10,000 (CWS Only).	April 1, 2008	March 31, 2010	July 1, 2010.
Other systems that are part of a combined distribution system			
(v) Wholesale system or consecutive system.	—at the same time as the system with the earliest compliance date in the combined distribution system.	—at the same time as the system with the earliest compliance date in the combined distribution system.	—at the same time as the system with the earliest compliance date in the combined distribution system.

[1] If, within 12 months after the date identified in this column, the State does not approve your plan or notify you that it has not yet completed its review, you may consider the plan that you submitted as approved. You must implement that plan and you must complete standard monitoring or a system specific study no later than the date identified in the third column.

[2] You must submit your 40/30 certification under § 141.603 by the date indicated.

[3] If, within three months after the date identified in this column (nine months after the date identified in this column if you must comply on the schedule in paragraph (c)(1)(iii) of this section), the State does not approve your IDSE report or notify you that it has not yet completed its review, you may consider the report that you submitted as approved and you must implement the recommended subpart V monitoring as required.

(2) For the purpose of the schedule in paragraph (c)(1) of this section, the State may determine that the combined distribution system does not include certain consecutive systems based on factors such as receiving water from a wholesale system only on an emergency basis or receiving only a small percentage and small volume of water from a wholesale system. The State may also determine that the combined distribution system does not include certain wholesale systems based on factors such as delivering water to a consecutive system only on an emergency basis or delivering only a small percentage and small volume of water to a consecutive system.

(d) You must conduct standard monitoring that meets the requirements in § 141.601, or a system specific study that meets the requirements in § 141.602, or certify to the State that you meet 40/30 certification criteria under § 141.603, or qualify for a very small system waiver under § 141.604.

(1) You must have taken the full complement of routine TTHM and HAA5 compliance samples required of a system with your population and source water under subpart L of this part (or you must have taken the full complement of reduced TTHM and HAA5 compliance samples required of a system with your population and source water under subpart L if you meet reduced monitoring criteria under subpart L of this part) during the period specified in § 141.603(a) to meet the 40/30 certification criteria in § 141.603. You must have taken TTHM and HAA5 samples under §§ 141.131 and 141.132 to be eligible for the very small system waiver in § 141.604.

(2) If you have not taken the required samples, you must conduct standard monitoring that meets the requirements in § 141.601, or a system specific study that meets the requirements in § 141.602.

(e) You must use only the analytical methods specified in § 141.131, or otherwise approved by EPA for monitoring under this subpart, to demonstrate compliance with the requirements of this subpart.

(f) IDSE results will not be used for the purpose of determining compliance with MCLs in § 141.64.

§ 141.601 Standard monitoring.

(a) *Standard monitoring plan.* Your standard monitoring plan must comply with paragraphs (a)(1) through (a)(4) of this section. You must prepare and submit your standard monitoring plan to the State according to the schedule in § 141.600(c).

(1) Your standard monitoring plan must include a schematic of your distribution system (including distribution system entry points and their sources, and storage facilities), with notes indicating locations and dates of all projected standard monitoring, and all projected subpart L compliance monitoring.

(2) Your standard monitoring plan must include justification of standard monitoring location selection and a summary of data you relied on to justify standard monitoring location selection.

(3) Your standard monitoring plan must specify the population served and system type (subpart H or ground water).

(4) You must retain a complete copy of your standard monitoring plan submitted under this paragraph (a), including any State modification of your standard monitoring plan, for as long as

you are required to retain your IDSE report under paragraph (c)(4) of this section.

(b) *Standard monitoring.* (1) You must monitor as indicated in the table in this paragraph (b)(1). You must collect dual sample sets at each monitoring location. One sample in the dual sample set must be analyzed for TTHM. The other sample in the dual sample set must be analyzed for HAA5. You must conduct one monitoring period during the peak historical month for TTHM levels or HAA5 levels or the month of warmest water temperature. You must review available compliance, study, or operational data to determine the peak historical month for TTHM or HAA5 levels or warmest water temperature.

Source water type	Population size category	Monitoring periods and frequency of sampling	Distribution system monitoring locations [1]				
			Total per monitoring period	Near entry points	Average residence time	High TTHM locations	High HAA5 locations
Subpart H							
	<500 consecutive systems	one (during peak historical month) [2].	2	1		1	
	<500 non-consecutive systems		2			1	1
	500–3,300 consecutive systems.	four (every 90 days)	2	1		1	
	500–3,300 non-consecutive systems.		2			1	1
	3,301–9,999		4		1	2	1
	10,000–49,999	six (every 60 days)	8	1	2	3	2
	50,000–249,999		16	3	4	5	4
	250,000–999,999		24	4	6	8	6
	1,000,000–4,999,999		32	6	8	10	8
	≥5,000,000		40	8	10	12	10
Ground Water							
	<500 consecutive systems	one (during peak historical month) [2].	2	1		1	
	<500 non-consecutive systems		2			1	1
	500–9,999	four (every 90 days)	2			1	1
	10,000–99,999		6	1	1	2	2
	100,000–499,999		8	1	1	3	3
	≥500,000		12	2	2	4	4

[1] A dual sample set (i.e., a TTHM and an HAA5 sample) must be taken at each monitoring location during each monitoring period.
[2] The peak historical month is the month with the highest TTHM or HAA5 levels or the warmest water temperature.

(2) You must take samples at locations other than the existing subpart L monitoring locations. Monitoring locations must be distributed throughout the distribution system.

(3) If the number of entry points to the distribution system is fewer than the specified number of entry point monitoring locations, excess entry point samples must be replaced equally at high TTHM and HAA5 locations. If there is an odd extra location number, you must take a sample at a high TTHM location. If the number of entry points to the distribution system is more than the specified number of entry point monitoring locations, you must take samples at entry points to the distribution system having the highest annual water flows.

(4) Your monitoring under this paragraph (b) may not be reduced under the provisions of § 141.29 and the State may not reduce your monitoring using the provisions of § 142.16(m).

(c) *IDSE report.* Your IDSE report must include the elements required in paragraphs (c)(1) through (c)(4) of this section. You must submit your IDSE report to the State according to the schedule in § 141.600(c).

(1) Your IDSE report must include all TTHM and HAA5 analytical results from subpart L compliance monitoring and all standard monitoring conducted during the period of the IDSE as individual analytical results and LRAAs presented in a tabular or spreadsheet format acceptable to the State. If changed from your standard monitoring plan submitted under paragraph (a) of this section, your report must also include a schematic of your distribution system, the population served, and system type (subpart H or ground water).

(2) Your IDSE report must include an explanation of any deviations from your approved standard monitoring plan.

(3) You must recommend and justify subpart V compliance monitoring locations and timing based on the protocol in § 141.605.

(4) You must retain a complete copy of your IDSE report submitted under this section for 10 years after the date that you submitted your report. If the State modifies the subpart V monitoring requirements that you recommended in your IDSE report or if the State approves alternative monitoring locations, you must keep a copy of the State's notification on file for 10 years after the date of the State's notification. You must make the IDSE report and any State notification available for review by the State or the public.

§ 141.602 System specific studies.

(a) *System specific study plan.* Your system specific study plan must be based on either existing monitoring results as required under paragraph (a)(1) of this section or modeling as required under paragraph (a)(2) of this section. You must prepare and submit your system specific study plan to the State according to the schedule in § 141.600(c).

(1) *Existing monitoring results.* You may comply by submitting monitoring results collected before you are required to begin monitoring under § 141.600(c). The monitoring results and analysis must meet the criteria in paragraphs (a)(1)(i) and (a)(1)(ii) of this section.

(i) *Minimum requirements.* (A) TTHM and HAA5 results must be based on samples collected and analyzed in accordance with § 141.131. Samples must be collected no earlier than five years prior to the study plan submission date.

(B) The monitoring locations and frequency must meet the conditions identified in this paragraph (a)(1)(i)(B). Each location must be sampled once during the peak historical month for TTHM levels or HAA5 levels or the month of warmest water temperature for every 12 months of data submitted for that location. Monitoring results must include all subpart L compliance monitoring results plus additional monitoring results as necessary to meet minimum sample requirements.

System Type	Population size category	Number of monitoring locations	Number of samples	
			TTHM	HAA5
Subpart H:				
	<500	3	3	3
	500–3,300	3	9	9
	3,301–9,999	6	36	36
	10,000–49,999	12	72	72
	50,000–249,999	24	144	144
	250,000–999,999	36	216	216
	1,000,000–4,999,999	48	288	288
	≥ 5,000,000	60	360	360
Ground Water:				
	<500	3	3	3
	500–9,999	3	9	9
	10,000–99,999	12	48	48
	100,000–499,999	18	72	72
	≥ 500,000	24	96	96

(ii) *Reporting monitoring results.* You must report the information in this paragraph (a)(1)(ii).

(A) You must report previously collected monitoring results and certify that the reported monitoring results include all compliance and non-compliance results generated during the time period beginning with the first reported result and ending with the most recent subpart L results.

(B) You must certify that the samples were representative of the entire distribution system and that treatment, and distribution system have not changed significantly since the samples were collected.

(C) Your study monitoring plan must include a schematic of your distribution system (including distribution system entry points and their sources, and storage facilities), with notes indicating the locations and dates of all completed or planned system specific study monitoring.

(D) Your system specific study plan must specify the population served and system type (subpart H or ground water).

(E) You must retain a complete copy of your system specific study plan submitted under this paragraph (a)(1), including any State modification of your system specific study plan, for as long as you are required to retain your IDSE report under paragraph (b)(5) of this section.

(F) If you submit previously collected data that fully meet the number of samples required under paragraph (a)(1)(i)(B) of this section and the State rejects some of the data, you must either conduct additional monitoring to replace rejected data on a schedule the State approves or conduct standard monitoring under § 141.601.

(2) *Modeling.* You may comply through analysis of an extended period simulation hydraulic model. The extended period simulation hydraulic model and analysis must meet the criteria in this paragraph (a)(2).

(i) *Minimum requirements.* (A) The model must simulate 24 hour variation in demand and show a consistently repeating 24 hour pattern of residence time.

(B) The model must represent the criteria listed in paragraphs (a)(2)(i)(B)(1) through (9) of this section.

(1) 75% of pipe volume;

(2) 50% of pipe length;

(3) All pressure zones;

(4) All 12-inch diameter and larger pipes;

(5) All 8-inch and larger pipes that connect pressure zones, influence zones from different sources, storage facilities, major demand areas, pumps, and control valves, or are known or expected to be significant conveyors of water;

(6) All 6-inch and larger pipes that connect remote areas of a distribution system to the main portion of the system;

(7) All storage facilities with standard operations represented in the model; and

(8) All active pump stations with controls represented in the model; and

(9) All active control valves.

(C) The model must be calibrated, or have calibration plans, for the current configuration of the distribution system during the period of high TTHM formation potential. All storage facilities must be evaluated as part of the calibration process. All required calibration must be completed no later than 12 months after plan submission.

(ii) *Reporting modeling.* Your system specific study plan must include the information in this paragraph (a)(2)(ii).

(A) Tabular or spreadsheet data demonstrating that the model meets requirements in paragraph (a)(2)(i)(B) of this section.

(B) A description of all calibration activities undertaken, and if calibration is complete, a graph of predicted tank levels versus measured tank levels for the storage facility with the highest residence time in each pressure zone, and a time series graph of the residence time at the longest residence time storage facility in the distribution system showing the predictions for the entire simulation period (*i.e.*, from time zero until the time it takes to for the model to reach a consistently repeating pattern of residence time).

(C) Model output showing preliminary 24 hour average residence time predictions throughout the distribution system.

(D) Timing and number of samples representative of the distribution system planned for at least one monitoring period of TTHM and HAA5 dual sample monitoring at a number of locations no

less than would be required for the system under standard monitoring in § 141.601 during the historical month of high TTHM. These samples must be taken at locations other than existing subpart L compliance monitoring locations.

(E) Description of how all requirements will be completed no later than 12 months after you submit your system specific study plan.

(F) Schematic of your distribution system (including distribution system entry points and their sources, and storage facilities), with notes indicating the locations and dates of all completed system specific study monitoring (if calibration is complete) and all subpart L compliance monitoring.

(G) Population served and system type (subpart H or ground water).

(H) You must retain a complete copy of your system specific study plan submitted under this paragraph (a)(2), including any State modification of your system specific study plan, for as long as you are required to retain your IDSE report under paragraph (b)(7) of this section.

(iii) If you submit a model that does not fully meet the requirements under paragraph (a)(2) of this section, you must correct the deficiencies and respond to State inquiries concerning the model. If you fail to correct deficiencies or respond to inquiries to the State's satisfaction, you must conduct standard monitoring under § 141.601.

(b) *IDSE report.* Your IDSE report must include the elements required in paragraphs (b)(1) through (b)(6) of this section. You must submit your IDSE report according to the schedule in § 141.600(c).

(1) Your IDSE report must include all TTHM and HAA5 analytical results from subpart L compliance monitoring and all system specific study monitoring conducted during the period of the system specific study presented in a tabular or spreadsheet format acceptable to the State. If changed from your system specific study plan submitted under paragraph (a) of this section, your IDSE report must also include a schematic of your distribution system, the population served, and system type (subpart H or ground water).

(2) If you used the modeling provision under paragraph (a)(2) of this section, you must include final information for the elements described in paragraph (a)(2)(ii) of this section, and a 24-hour time series graph of residence time for each subpart V compliance monitoring location selected.

(3) You must recommend and justify subpart V compliance monitoring locations and timing based on the protocol in § 141.605.

(4) Your IDSE report must include an explanation of any deviations from your approved system specific study plan.

(5) Your IDSE report must include the basis (analytical and modeling results) and justification you used to select the recommended subpart V monitoring locations.

(6) You may submit your IDSE report in lieu of your system specific study plan on the schedule identified in § 141.600(c) for submission of the system specific study plan if you believe that you have the necessary information by the time that the system specific study plan is due. If you elect this approach, your IDSE report must also include all information required under paragraph (a) of this section.

(7) You must retain a complete copy of your IDSE report submitted under this section for 10 years after the date that you submitted your IDSE report. If the State modifies the subpart V monitoring requirements that you recommended in your IDSE report or if the State approves alternative monitoring locations, you must keep a copy of the State's notification on file for 10 years after the date of the State's notification. You must make the IDSE report and any State notification available for review by the State or the public.

§ 141.603 40/30 certification.

(a) *Eligibility.* You are eligible for 40/30 certification if you had no TTHM or HAA5 monitoring violations under subpart L of this part and no individual sample exceeded 0.040 mg/L for TTHM or 0.030 mg/L for HAA5 during an eight consecutive calendar quarter period beginning no earlier than the date specified in this paragraph (a).

If your 40/30 certification is due	Then your eligibility for 40/30 certification is based on eight consecutive calendar quarters of subpart L compliance monitoring results beginning no earlier than [1]
(1) October 1, 2006.	January 2004.
(2) April 1, 2007.	January 2004.
(3) October 1, 2007.	January 2005.
(4) April 1, 2008.	January 2005.

[1] Unless you are on reduced monitoring under subpart L of this part and were not required to monitor during the specified period. If you did not monitor during the specified period, you must base your eligibility on compliance samples taken during the 12 months preceding the specified period.

(b) *40/30 certification.* (1) You must certify to your State that every individual compliance sample taken under subpart L of this part during the periods specified in paragraph (a) of this section were ≤0.040 mg/L for TTHM and ≤0.030 mg/L for HAA5, and that you have not had any TTHM or HAA5 monitoring violations during the period specified in paragraph (a) of this section.

(2) The State may require you to submit compliance monitoring results, distribution system schematics, and/or recommended subpart V compliance monitoring locations in addition to your certification. If you fail to submit the requested information, the State may require standard monitoring under § 141.601 or a system specific study under § 141.602.

(3) The State may still require standard monitoring under § 141.601 or a system specific study under § 141.602 even if you meet the criteria in paragraph (a) of this section.

(4) You must retain a complete copy of your certification submitted under this section for 10 years after the date that you submitted your certification. You must make the certification, all data upon which the certification is based, and any State notification available for review by the State or the public.

§ 141.604 Very small system waivers.

(a) If you serve fewer than 500 people and you have taken TTHM and HAA5 samples under subpart L of this part, you are not required to comply with this subpart unless the State notifies you that you must conduct standard monitoring under § 141.601 or a system specific study under § 141.602.

(b) If you have not taken TTHM and HAA5 samples under subpart L of this part or if the State notifies you that you must comply with this subpart, you must conduct standard monitoring under § 141.601 or a system specific study under § 141.602.

§ 141.605 Subpart V compliance monitoring location recommendations.

(a) Your IDSE report must include your recommendations and justification for where and during what month(s) TTHM and HAA5 monitoring for subpart V of this part should be conducted. You must base your recommendations on the criteria in paragraphs (b) through (e) of this section.

(b) You must select the number of monitoring locations specified in the table in this paragraph (b). You will use these recommended locations as subpart V routine compliance monitoring locations, unless State requires different

or additional locations. You should distribute locations throughout the distribution system to the extent possible.

Source water type	Population size category	Monitoring frequency [1]	Distribution system monitoring location			
			Total per monitoring period [2]	Highest TTHM locations	Highest HAA5 locations	Existing subpart L compliance locations
Subpart H:						
	<500	per year	2	1	1	.....
	500–3,300	per quarter	2	1	1	
	3,301–9,999	per quarter	2	1	1	.....
	10,000–49,999	per quarter	4	2	1	1
	50,000–249,999	per quarter	8	3	3	2
	250,000–999,999	per quarter	12	5	4	3
	1,000,000–4,999,999	per quarter	16	6	6	4
	≥5,000,000	per quarter	20	8	7	5
Ground water:						
	<500	per year	2	1	1	
	500–9,999	per year	2	1	1	
	10,000–99,999	per quarter	4	2	1	1
	100,000–499,999	per quarter	6	3	2	1
	≥500,000	per quarter	8	3	3	2

[1] All systems must monitor during month of highest DBP concentrations.

[2] Systems on quarterly monitoring must take dual sample sets every 90 days at each monitoring location, except for subpart H systems serving 500–3,300. Systems on annual monitoring and subpart H systems serving 500–3,300 are required to take individual TTHM and HAA5 samples (instead of a dual sample set) at the locations with the highest TTHM and HAA5 concentrations, respectively. Only one location with a dual sample set per monitoring period is needed if highest TTHM and HAA5 concentrations occur at the same location, and month, if monitored annually).

(c) You must recommend subpart V compliance monitoring locations based on standard monitoring results, system specific study results, and subpart L compliance monitoring results. You must follow the protocol in paragraphs (c)(1) through (c)(8) of this section. If required to monitor at more than eight locations, you must repeat the protocol as necessary. If you do not have existing subpart L compliance monitoring results or if you do not have enough existing subpart L compliance monitoring results, you must repeat the protocol, skipping the provisions of paragraphs (c)(3) and (c)(7) of this section as necessary, until you have identified the required total number of monitoring locations.

(1) Location with the highest TTHM LRAA not previously selected as a subpart V monitoring location.

(2) Location with the highest HAA5 LRAA not previously selected as a subpart V monitoring location.

(3) Existing subpart L average residence time compliance monitoring location (maximum residence time compliance monitoring location for ground water systems) with the highest HAA5 LRAA not previously selected as a subpart V monitoring location.

(4) Location with the highest TTHM LRAA not previously selected as a subpart V monitoring location.

(5) Location with the highest TTHM LRAA not previously selected as a subpart V monitoring location.

(6) Location with the highest HAA5 LRAA not previously selected as a subpart V monitoring location.

(7) Existing subpart L average residence time compliance monitoring location (maximum residence time compliance monitoring location for ground water systems) with the highest TTHM LRAA not previously selected as a subpart V monitoring location.

(8) Location with the highest HAA5 LRAA not previously selected as a subpart V monitoring location.

(d) You may recommend locations other than those specified in paragraph (c) of this section if you include a rationale for selecting other locations. If the State approves the alternate locations, you must monitor at these locations to determine compliance under subpart V of this part.

(e) Your recommended schedule must include subpart V monitoring during the peak historical month for TTHM and HAA5 concentration, unless the State approves another month. Once you have identified the peak historical month, and if you are required to conduct routine monitoring at least quarterly, you must schedule subpart V compliance monitoring at a regular frequency of every 90 days or fewer.

■ 20. Part 141 is amended by adding new subpart V to read as follows:

Subpart V—Stage 2 Disinfection Byproducts Requirements

Subpart V—Stage 2 Disinfection Byproducts Requirements

§ 141.620 General requirements.

(a) *General.* The requirements of subpart V of this part constitute national primary drinking water regulations. The regulations in this subpart establish monitoring and other requirements for

achieving compliance with maximum contaminant levels based on locational running annual averages (LRAA) for total trihalomethanes (TTHM) and haloacetic acids (five)(HAA5), and for achieving compliance with maximum residual disinfectant residuals for chlorine and chloramine for certain consecutive systems.

(b) *Applicability.* You are subject to these requirements if your system is a community water system or a nontransient noncommunity water system that uses a primary or residual disinfectant other than ultraviolet light or delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light.

(c) *Schedule.* You must comply with the requirements in this subpart on the schedule in the following table based on your system type.

If you are this type of system	You must comply with subpart V monitoring by: [1]
Systems that are not part of a combined distribution system and systems that serve the largest population in the combined distribution system	
(1) System serving ≥ 100,000	April 1, 2012.
(2) System serving 50,000–99,999	October 1, 2012.
(3) System serving 10,000–49,999	October 1, 2013.
(4) System serving > 10,000	October 1, 2013 if no Cryptosporidium monitoring is required under § 141.701(a)(4) or October 1, 2014 if Cryptosporidium monitoring is required under § 141.701(a)(4) or (a)(6)
Other systems that are part of a combined distribution system	
(5) Consecutive system or wholesale system	—at the same time as the system with the earliest compliance date in the combined distribution system.

[1] The State may grant up to an additional 24 months for compliance with MCLs and operational evaluaton levels if you require capital improvements to comply with an MCL.

(6) Your monitoring frequency is specified in § 141.621(a)(2).

(i) If you are required to conduct quarterly monitoring, you must begin monitoring in the first full calendar quarter that includes the compliance date in the table in this paragraph (c).

(ii) If you are required to conduct monitoring at a frequency that is less than quarterly, you must begin monitoring in the calendar month recommended in the IDSE report prepared under § 141.601 or § 141.602 or the calendar month identified in the subpart V monitoring plan developed under § 141.622 no later than 12 months after the compliance date in this table.

(7) If you are required to conduct quarterly monitoring, you must make compliance calculations at the end of the fourth calendar quarter that follows the compliance date and at the end of each subsequent quarter (or earlier if the LRAA calculated based on fewer than four quarters of data would cause the MCL to be exceeded regardless of the monitoring results of subsequent quarters). If you are required to conduct monitoring at a frequency that is less than quarterly, you must make compliance calculations beginning with the first compliance sample taken after the compliance date.

(8) For the purpose of the schedule in this paragraph (c), the State may determine that the combined distribution system does not include certain consecutive systems based on factors such as receiving water from a wholesale system only on an emergency basis or receiving only a small percentage and small volume of water from a wholesale system. The State may also determine that the combined distribution system does not include certain wholesale systems based on factors such as delivering water to a consecutive system only on an emergency basis or delivering only a small percentage and small volume of water to a consecutive system.

(d) Monitoring and compliance. (1) Systems required to monitor quarterly. To comply with subpart V MCLs in § 141.64(b)(2), you must calculate LRAAs for TTHM and HAA5 using monitoring results collected under this subpart and determine that each LRAA does not exceed the MCL. If you fail to complete four consecutive quarters of monitoring, you must calculate compliance with the MCL based on the average of the available data from the most recent four quarters. If you take more than one sample per quarter at a monitoring location, you must average all samples taken in the quarter at that location to determine a quarterly average to be used in the LRAA calculation.

(2) Systems required to monitor yearly or less frequently. To determine compliance with subpart V MCLs in § 141.64(b)(2), you must determine that each sample taken is less than the MCL. If any sample exceeds the MCL, you must comply with the requirements of § 141.625. If no sample exceeds the MCL, the sample result for each monitoring location is considered the LRAA for that monitoring location.

(e) *Violation.* You are in violation of the monitoring requirements for each quarter that a monitoring result would be used in calculating an LRAA if you fail to monitor.

§ 141.621 Routine monitoring.

(a) *Monitoring.* (1) If you submitted an IDSE report, you must begin monitoring at the locations and months you have recommended in your IDSE report submitted under § 141.605 following the schedule in § 141.620(c), unless the State requires other locations or additional locations after its review. If you submitted a 40/30 certification under § 141.603 or you qualified for a very small system waiver under § 141.604 or you are a nontransient noncommunity water system serving <10,000, you must monitor at the location(s) and dates identified in your monitoring plan in § 141.132(f), updated as required by § 141.622.

(2) You must monitor at no fewer than the number of locations identified in this paragraph (a)(2).

Source water type	Population size category	Monitoring Frequency [1]	Distribution system monitoring location total per monitoring period [2]
Subpart H:			
	<500	per year	2
	500–3,300	per quarter	2
	3,301–9,999	per quarter	2
	10,000–49,999	per quarter	4
	50,000–249,999	per quarter	8
	250,000–999,999	per quarter	12
	1,000,000–4,999,999	per quarter	16
	≥ 5,000,000	per quarter	20
Ground Water:			
	<500	per year	2
	500–9,999	per year	2
	10,000–99,999	per quarter	4
	100,000–499,999	per quarter	6
	≥ 500,000	per quarter	8

[1] All systems must monitor during month of highest DBP concentrations.
[2] Systems on quarterly monitoring must take dual sample sets every 90 days at each monitoring location, except for subpart H systems serving 500–3,300. Systems on annual monitoring and subpart H systems serving 500–3,300 are required to take individual TTHM and HAA5 samples (instead of a dual sample set) at the locations with the highest TTHM and HAA5 concentrations, respectively. Only one location with a dual sample set per monitoring period is needed if highest TTHM and HAA5 concentrations occur at the same location (and month, if monitored annually).

(3) If you are an undisinfected system that begins using a disinfectant other than UV light after the dates in subpart U of this part for complying with the Initial Distribution System Evaluation requirements, you must consult with the State to identify compliance monitoring locations for this subpart. You must then develop a monitoring plan under § 141.622 that includes those monitoring locations.

(b) Analytical methods. You must use an approved method listed in § 141.131 for TTHM and HAA5 analyses in this subpart. Analyses must be conducted by laboratories that have received certification by EPA or the State as specified in § 141.131.

§ 141.622 Subpart V monitoring plan.

(a)(1) You must develop and implement a monitoring plan to be kept on file for State and public review. The monitoring plan must contain the elements in paragraphs (a)(1)(i) through (a)(1)(iv) of this section and be complete no later than the date you conduct your initial monitoring under this subpart.

(i) Monitoring locations;

(ii) Monitoring dates;

(iii) Compliance calculation procedures; and

(iv) Monitoring plans for any other systems in the combined distribution system if the State has reduced monitoring requirements under the State authority in § 142.16(m).

(2) If you were not required to submit an IDSE report under either § 141.601 or § 141.602, and you do not have sufficient subpart L monitoring locations to identify the required number of subpart V compliance monitoring locations indicated in § 141.605(b), you must identify additional locations by alternating selection of locations representing high TTHM levels and high HAA5 levels until the required number of compliance monitoring locations have been identified. You must also provide the rationale for identifying the locations as having high levels of TTHM or HAA5. If you have more subpart L monitoring locations than required for subpart V compliance monitoring in § 141.605(b), you must identify which locations you will use for subpart V compliance monitoring by alternating selection of locations representing high TTHM levels and high HAA5 levels until the required number of subpart V compliance monitoring locations have been identified.

(b) If you are a subpart H system serving > 3,300 people, you must submit a copy of your monitoring plan to the State prior to the date you conduct your initial monitoring under this subpart, unless your IDSE report submitted under subpart U of this part contains all the information required by this section.

(c) You may revise your monitoring plan to reflect changes in treatment, distribution system operations and layout (including new service areas), or other factors that may affect TTHM or HAA5 formation, or for State-approved reasons, after consultation with the State regarding the need for changes and the appropriateness of changes. If you change monitoring locations, you must replace existing compliance monitoring locations with the lowest LRAA with new locations that reflect the current distribution system locations with expected high TTHM or HAA5 levels. The State may also require modifications in your monitoring plan. If you are a subpart H system serving > 3,300 people, you must submit a copy of your modified monitoring plan to the State prior to the date you are required to comply with the revised monitoring plan.

§ 141.623 Reduced monitoring.

(a) You may reduce monitoring to the level specified in the table in this paragraph (a) any time the LRAA is ≤0.040 mg/L for TTHM and ≤0.030 mg/L for HAA5 at all monitoring locations. You may only use data collected under the provisions of this subpart or subpart L of this part to qualify for reduced monitoring. In addition, the source water annual average TOC level, before any treatment, must be ≤4.0 mg/L at each treatment plant treating surface water or ground water under the direct influence of surface water, based on monitoring conducted under either § 141.132(b)(1)(iii) or § 141.132(d).

Source water type	Population size category	Monitoring frequency [1]	Distribution system monitoring location per monitoring period
Subpart H:			
	<500	.....	monitoring may not be reduced.
	500–3,300	per year	1 TTHM and 1 HAA5 sample: one at the location and during the quarter with the highest TTHM single measurement, one at the location and during the quarter with the highest HAA5 single measurement; 1 dual sample set per year if the highest TTHM and HAA5 measurements occurred at the same location and quarter.
	3,301–9,999	per year	2 dual sample sets: one at the location and during the quarter with the highest TTHM single measurement, one at the location and during the quarter with the highest HAA5 single measurement.
	10,000–49,999	per quarter	2 dual sample sets at the locations with the highest TTHM and highest HAA5 LRAAs.
	50,000–249,999	per quarter	4 dual sample sets—at the locations with the two highest TTHM and two highest HAA5 LRAAs.
	250,000–999,999	per quarter	6 dual sample sets—at the locations with the three highest TTHM and three highest HAA5 LRAAs.
	1,000,000–4,999,999	per quarter	8 dual sample sets—at the locations with the four highest TTHM and four highest HAA5 LRAAs.
	≥ 5,000,000	per quarter	10 dual sample sets—at the locations with the five highest TTHM and five highest HAA5 LRAAs.
Ground Water:			
	<500	every third year	1 TTHM and 1 HAA5 sample: one at the location and during the quarter with the highest TTHM single measurement, one at the location and during the quarter with the highest HAA5 single measurement; 1 dual sample set per year if the highest TTHM and HAA5 measurements occurred at the same location and quarter.
	500–9,999	per year	1 TTHM and 1 HAA5 sample: one at the location and during the quarter with the highest TTHM single measurement, one at the location and during the quarter with the highest HAA5 single measurement; 1 dual sample set per year if the highest TTHM and HAA5 measurements occurred at the same location and quarter.
	10,000–99,999	per year	2 dual sample sets: one at the location and during the quarter with the highest TTHM single measurement, one at the location and during the quarter with the highest HAA5 single measurement.
	100,000–499,999	per quarter	2 dual sample sets; at the locations with the highest TTHM and highest HAA5 LRAAs.
	≥ 500,000	per quarter	4 dual sample sets at the locations with the two highest TTHM and two highest HAA5 LRAAs.

[1] Systems on quarterly monitoring must take dual sample sets every 90 days.

(b) You may remain on reduced monitoring as long as the TTHM LRAA ≤0.040 mg/L and the HAA5 LRAA ≤0.030 mg/L at each monitoring location (for systems with quarterly reduced monitoring) or each TTHM sample ≤0.060 mg/L and each HAA5 sample ≤0.045 mg/L (for systems with annual or less frequent monitoring). In addition, the source water annual average TOC level, before any treatment, must be ≤4.0 mg/L at each treatment plant treating surface water or ground water under the direct influence of surface water, based on monitoring conducted under either § 141.132(b)(1)(iii) or § 141.132(d).

(c) If the LRAA based on quarterly monitoring at any monitoring location exceeds either 0.040 mg/L for TTHM or 0.030 mg/L for HAA5 or if the annual (or less frequent) sample at any location exceeds either 0.060 mg/L for TTHM or 0.045 mg/L for HAA5, or if the source water annual average TOC level, before any treatment, >4.0 mg/L at any treatment plant treating surface water or ground water under the direct influence of surface water, you must resume routine monitoring under § 141.621 or begin increased monitoring if § 141.625 applies.

(d) The State may return your system to routine monitoring at the State's discretion.

§ 141.624 Additional requirements for consecutive systems.

If you are a consecutive system that does not add a disinfectant but delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light, you must comply with analytical and monitoring requirements for chlorine and chloramines in § 141.131 (c) and § 141.132(c)(1) and the compliance requirements in § 141.133(c)(1) beginning April 1, 2009, unless required earlier by the State, and report monitoring results under § 141.134(c).

§ 141.625 Conditions requiring increased monitoring.

(a) If you are required to monitor at a particular location annually or less frequently than annually under § 141.621 or § 141.623, you must increase monitoring to dual sample sets once per quarter (taken every 90 days) at all locations if a TTHM sample is >0.080 mg/L or a HAA5 sample is >0.060 mg/L at any location.

(b) You are in violation of the MCL when the LRAA exceeds the subpart V MCLs in § 141.64(b)(2), calculated based on four consecutive quarters of monitoring (or the LRAA calculated based on fewer than four quarters of data if the MCL would be exceeded regardless of the monitoring results of subsequent quarters). You are in violation of the monitoring requirements for each quarter that a monitoring result would be used in calculating an LRAA if you fail to monitor.

(c) You may return to routine monitoring once you have conducted increased monitoring for at least four consecutive quarters and the LRAA for every monitoring location is ≤0.060 mg/L for TTHM and ≤0.045 mg/L for HAA5.

§ 141.626 Operational evaluation levels.

(a) You have exceeded the operational evaluation level at any monitoring location where the sum of the two previous quarters' TTHM results plus twice the current quarter's TTHM result, divided by 4 to determine an average, exceeds 0.080 mg/L, or where the sum of the two previous quarters' HAA5 results plus twice the current quarter's HAA5 result, divided by 4 to determine an average, exceeds 0.060 mg/L.

(b)(1) If you exceed the operational evaluation level, you must conduct an operational evaluation and submit a written report of the evaluation to the State no later than 90 days after being notified of the analytical result that causes you to exceed the operational evaluation level. The written report must be made available to the public upon request.

(2) Your operational evaluation must include an examination of system treatment and distribution operational practices, including storage tank operations, excess storage capacity, distribution system flushing, changes in sources or source water quality, and treatment changes or problems that may contribute to TTHM and HAA5 formation and what steps could be considered to minimize future exceedences.

(i) You may request and the State may allow you to limit the scope of your evaluation if you are able to identify the cause of the operational evaluation level exceedance.

(ii) Your request to limit the scope of the evaluation does not extend the schedule in paragraph (b)(1) of this section for submitting the written report. The State must approve this limited scope of evaluation in writing and you must keep that approval with the completed report.

§ 141.627 Requirements for remaining on reduced TTHM and HAA5 monitoring based on subpart L results.

You may remain on reduced monitoring after the dates identified in § 141.620(c) for compliance with this subpart only if you qualify for a 40/30 certification under § 141.603 or have received a very small system waiver under § 141.604, plus you meet the reduced monitoring criteria in § 141.623(a), and you do not change or add monitoring locations from those used for compliance monitoring under subpart L of this part. If your monitoring locations under this subpart differ from your monitoring locations under subpart L of this part, you may not remain on reduced monitoring after the dates identified in § 141.620(c) for compliance with this subpart.

§ 141.628 Requirements for remaining on increased TTHM and HAA5 monitoring based on subpart L results.

If you were on increased monitoring under § 141.132(b)(1), you must remain on increased monitoring until you qualify for a return to routine monitoring under § 141.625(c). You must conduct increased monitoring under § 141.625 at the monitoring locations in the monitoring plan developed under § 141.622 beginning at the date identified in § 141.620(c) for compliance with this subpart and remain on increased monitoring until you qualify for a return to routine monitoring under § 141.625(c).

§ 141.629 Reporting and recordkeeping requirements.

(a) *Reporting.* (1) You must report the following information for each monitoring location to the State within 10 days of the end of any quarter in which monitoring is required:

(i) Number of samples taken during the last quarter.

(ii) Date and results of each sample taken during the last quarter.

(iii) Arithmetic average of quarterly results for the last four quarters for each monitoring location (LRAA), beginning at the end of the fourth calendar quarter that follows the compliance date and at the end of each subsequent quarter. If the LRAA calculated based on fewer than four quarters of data would cause the MCL to be exceeded regardless of the monitoring results of subsequent quarters, you must report this information to the State as part of the first report due following the compliance date or anytime thereafter that this determination is made. If you are required to conduct monitoring at a frequency that is less than quarterly, you must make compliance calculations beginning with the first compliance sample taken after the compliance date, unless you are required to conduct increased monitoring under § 141.625.

(iv) Whether, based on § 141.64(b)(2) and this subpart, the MCL was violated at any monitoring location.

(v) Any operational evaluation levels that were exceeded during the quarter and, if so, the location and date, and the calculated TTHM and HAA5 levels.

(2) If you are a subpart H system seeking to qualify for or remain on reduced TTHM/HAA5 monitoring, you must report the following source water TOC information for each treatment plant that treats surface water or ground water under the direct influence of surface water to the State within 10 days of the end of any quarter in which monitoring is required:

(i) The number of source water TOC samples taken each month during last quarter.

(ii) The date and result of each sample taken during last quarter.

(iii) The quarterly average of monthly samples taken during last quarter or the result of the quarterly sample.

(iv) The running annual average (RAA) of quarterly averages from the past four quarters.

(v) Whether the RAA exceeded 4.0 mg/L.

(3) The State may choose to perform calculations and determine whether the MCL was exceeded or the system is eligible for reduced monitoring in lieu of having the system report that information

(b) *Recordkeeping.* You must retain any subpart V monitoring plans and your subpart V monitoring results as required by § 141.33.

PART 142—NATIONAL PRIMARY DRINKING WATER REGULATIONS IMPLEMENTATION

■ 21. The authority citation for part 142 continues to read as follows:

Authority: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

■ 22. Section 142.14 is amended by adding paragraph (a)(8) to read as follows:

§ 142.14 Records kept by States.

(a) * * *

(8) Any decisions made pursuant to the provisions of 40 CFR part 141, subparts U and V of this part.

(i) IDSE monitoring plans, plus any modifications required by the State, must be kept until replaced by approved IDSE reports.

(ii) IDSE reports and 40/30 certifications, plus any modifications

required by the State, must be kept until replaced or revised in their entirety.

(iii) Operational evaluations submitted by a system must be kept for 10 years following submission.

* * * * *

■ 23. Section 142.16 is amended by adding paragraph (m) to read as follows:

§ 142.16 Special primacy requirements.

* * * * *

(m) *Requirements for States to adopt 40 CFR part 141, subparts U and V.* In addition to the general primacy requirements elsewhere in this part, including the requirements that State regulations be at least as stringent as federal requirements, an application for approval of a State program revision that adopts 40 CFR part 141, subparts U and V, must contain a description of how the State will implement a procedure for addressing modification of wholesale system and consecutive system monitoring on a case-by-case basis for part 141 subpart V outside the provisions of § 141.29 of this chapter, if the State elects to use such an authority. The procedure must ensure that all systems have at least one compliance monitoring location.

* * * * *

[FR Doc. 06–3 Filed 1–3–06; 8:45 am]

BILLING CODE 6560–50–P

Corrections

Federal Register

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Friday, January 27, 2006

This section of the FEDERAL REGISTER contains editorial corrections of previously published Presidential, Rule, Proposed Rule, and Notice documents. These corrections are prepared by the Office of the Federal Register. Agency prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

DEPARTMENT OF EDUCATION

Office of Postsecondary Education; Overview Information; Developing Hispanic-Serving Institutions (HSI) Program; Notice Inviting Applications for New Awards for Fiscal Year (FY) 2006

Corrections

In notice document E6–829 beginning on page 3830 in the issue of Tuesday, January 24, 2006, make the following corrections:

1. On page 3830, in the first column, under the heading **DATES**, in the third paragraph, under *Deadline for Intergovernmental Review:* ''March 27, 2006'' should read '' May 9, 2006''.

2. On page 3832, in the first column, in the fourth paragraph, under *Deadline for Intergovernmental Review:* ''March 27, 2006'' should read ''May 9, 2006''.

[FR Doc. Z6–829 Filed 1–26–06; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 9, 141, and 142

[EPA–HQ–OW–2002–0043; FRL–8012–1]

RIN 2040–AD38

National Primary Drinking Water Regulations: Stage 2 Disinfectants and Disinfection Byproducts Rule

Correction

In rule document 06–3 beginning on page 388 in the issue of Wednesday, January 4, 2006, make the following corrections:

1. On page 424, in the third column, in the last paragraph, in the second line, ''complete'' should read ''completing''.

2. On the same page, in the same column, in the same paragraph, in the 12th line, ''complete'' should read ''completing''.

3. On page 426, the table is corrected to read as set forth below:

TABLE IV.G–1.—IDSE MONITORING FREQUENCIES AND LOCATIONS

Source water type	Population size category	Monitoring periods and frequency of sampling	Distribution system monitoring locations [1]				
			Total per monitoring period	Near entry points	Average residence time	High TTHM locations	High HAA5 locations
Subpart H	<500 consecutive systems.	one (during peak historical month) [2].	2	1	.....	1	
	<500 non-consecutive systems.	.....	2	.....	.....	1	1
	500–3,300 non-consecutive systems.	four (every 90 days)	2	1	.....	1	.....
	500–3,300 consecutive systems.	.....	2	.....	.....	1	1
	3,301–9,999	.....	4	.....	1	2	1
	10,000–49,999	six (every 60 days)	8	1	2	3	2
	50,000–249,999	.....	16	3	4	5	4
	250,000–999,999	.....	24	4	6	8	6
	1,000,000–4,999,999	.....	32	6	8	10	8
	≥5,000,000	.....	40	8	10	12	10
Ground Water	<500 consecutive systems.	one (during peak historical month) [2].	2	1	.....	1	.....
	<500 non-consecutive systems.	.....	2	.....	.....	1	1
	500–9,999	four (every 90 days)	2	.....	.....	1	1
	10,000–99,999	.....	6	1	1	2	2
	100,000–499,999	.....	8	1	1	3	3
	≥500,000	.....	12	2	2	4	4

[1] A dual sample set (i.e., a TTHM and an HAA5 sample) must be taken at each monitoring location during each monitoring period.
[2] The peak historical month is the month with the highest TTHM or HAA5 levels or the warmest water temperature.

4. On page 433, in the second column, in the third full paragraph, in the sixth and seventh lines, ''2×10/b 2×10^{-4}, 10^{-4} and 10^{-6}'' should read ''2×10^{-4}''.

5. On pages 434 and 435, Table IV.K–1 is corrected to read as set forth below:

TABLE IV.K–1.—TECHNOLOGIES CONSIDERED AND PREDICTED TO BE USED IN COMPLIANCE FORECAST FOR SMALL SYSTEMS

SW Water Plants	GW Water Plants
• *Switching to chloramines as a residual disinfectant*	• *Switching to chloramines as a residual disinfectant*
• *Chlorine dioxide (not for systems serving fewer than 100 people)*	• *UV*
• *UV*	• Ozone (not for systems serving fewer than 100 people)
• Ozone (not for systems serving fewer than 100 people)	• *GAC20*
• Micro-filtration/Ultra-filtration	• Nanofiltration
• GAC20.	
• *GAC20 + Advanced disinfectants*.	
• *Integrated Membranes*.	

Note: Italicized technologies are those predicted to be used in the compliance forecast.
Source: Exhibits 5.11b and 5.14b, USEPA 2005a.

6. On page 435, in Table IV.K–2, in column H, in the second line, ''9'' should read ''0''.

7. On page 464, in Table VI.K–1, in the ''Notes:'', in the third line, ''established exposure'' should read ''established between exposure''.

§ 9.1 [Corrected]

8. On page 477, in § 9.1, in the third column, in the table National Primary Drinking Water Regulations Implementation, under ''OMB control No.'', in the first line, ''2040–0265'' should read ''2040–0205''.

§ 141.620 [Corrected]

9. On page 489, in § 141.620(c), in the table, in the first column, in entry (4), ''System serving > 10,000'' should read ''System serving < 10,000''.

[FR Doc. C6–3 Filed 1–26–06; 8:45 am]
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Corrections

Federal Register

Vol. 71, No. 125

Thursday, June 29, 2006

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 141

[EPA–HQ–OW–2002–0043; FRL–8012–1]

RIN 2040–AD38

National Primary Drinking Water Regulations: Stage 2 Disinfectants and Disinfection Byproducts Rule

Correction

In rule document 06–3 beginning on page 388 in the issue of Wednesday, January 4, 2006, make the following corrections:

§141.131 [Corrected]

On page 481, in § 141.31(c)(1) the table is corrected to read as set forth below:

Methodology	SM (19th or 20th ed)	SM Online [2]	ASTM method	EPA method	Residual measured [1]			
					Free Cl_2	Combined Cl_2	Total Cl_2	ClO_2
Amperometric Titration	4500–Cl D	4500–Cl D–00	D 1253–86 (96), 03		X	X	X	
Low Level Amperometric Titration.	4500–Cl E	4500–Cl E–00					X	
DPD Ferrous Titrimetric	4500–Cl F	4500–Cl F–00			X	X	X	
DPD Colorimetric	4500–Cl G	4500–Cl G–00			X	X	X	
Syringaldazine (FACTS)	4500–Cl H	4500–Cl H–00			X			
Iodometric Electrode	4500–Cl I	4500–Cl I–00					X	
DPD	4500–ClO_2 D							X
Amperometric Method II	4500–ClO_2 E	4500–ClO_2 E–00						X
Lissamine Green Spectrophotometric.				327.0 Rev 1.1				X

[1] X indicates method is approved for measuring specified disinfectant residual. Free chlorine or total chlorine may be measured for demonstrating compliance with the chlorine MRDL and combined chlorine, or total chlorine may be measured for demonstrating compliance with the chloramine MRDL.

[2] The Standard Methods Online version that is approved is indicated by the last two digits in the method number which is the year of approval by the Standard Method Committee. Standard Methods Online are available at *http://www.standardmethods.org.*

[FR Doc. C6–3 Filed 6–28–06; 8:45 am]

BILLING CODE 1505–01–D

Appendix C

Rule Factsheets/Quick Reference Guides

Additional Quick Reference Guides, Factsheets, and Guidance documents are available for download at EPA's Web site: http://www.epa.gov/safewater/disinfection/stage2/compliance.html#pws.

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Stage 2 DBPR
IDSE Standard Monitoring Factsheet

What Is The Stage 2 DBPR?

The U.S. Environmental Protection Agency (EPA) published the Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) on January 4, 2006. The Stage 2 DBPR builds on existing regulations by requiring water systems to meet disinfection byproduct (DBP) maximum contaminant levels (MCLs) at each monitoring site in the distribution system to better protect public health.

What Is The IDSE Provision Of The Stage 2 DBPR?

The Stage 2 DBPR includes a provision requiring all community water systems (CWS) and only nontransient noncommunity water systems (NTNCWS) serving more than 10,000 people to conduct an initial distribution system evaluation (IDSE). NTNCWS serving less than 10,000 are exempted from IDSE requirements, but will need to comply with the Stage 2 DBPR compliance monitoring requirements. The goal of the IDSE is to characterize the distribution system and identify monitoring sites where customers may be exposed to high levels of total trihalomethanes (TTHM) and haloacetic acids (HAA5). There are four ways to comply with the IDSE requirements: Standard Monitoring, System Specific Study, 40/30 Certification (40/30), and Very Small System (VSS) Waiver. The Standard Monitoring option requires the system to collect 1 year of TTHM and HAA5 data at a specified frequency and locations to characterize TTHM and HAA5 levels in the distribution system. In addition to this data, the system must use available Stage 1 DBPR compliance data to determine the best locations for Stage 2 DBPR compliance monitoring. Any system may conduct Standard Monitoring to meet the IDSE requirements of the Stage 2 DBPR. This factsheet only provides information regarding the Standard Monitoring option.

Standard Monitoring Requirements

Systems opting to conduct Standard Monitoring will need to:

- Step 1: Prepare and submit a Standard Monitoring Plan by the date specified in Table 1 (below).
- Step 2: Conduct one year of Standard Monitoring in the distribution system.
- Step 3: Prepare and submit the IDSE Report.
- Step 4: Prepare a Stage 2 DBPR compliance monitoring plan.

Table 1: Standard Monitoring Compliance Dates

If you are a system serving:	Schedule:[1]	Standard Monitoring Plan Due Date:	Complete Standard Monitoring by:	Submit IDSE Report By:	Begin Compliance Monitoring by:
At least 100,000 people or part of a combined distribution system serving at least 100,000 people	Schedule 1	October 1, 2006	September 30, 2008	January 1, 2009	April 1, 2012
50,000 to 99,999 people or part of a combined distribution system serving 50,000 to 99,999 people	Schedule 2	April 1, 2007	March 31, 2009	July 1, 2009	October 1, 2012
10,000 to 49,999 people or part of a combined distribution system serving 10,000 to 49,999 people	Schedule 3	October 1, 2007	September 30, 2009	January 1, 2010	October 1, 2013
Less than 10,000 or part of a combined distribution system serving less than 10,000	Schedule 4	April 1, 2008	March 31, 2010	July 1, 2010	October 1, 2013 [2]

[1] Your schedule is defined by the largest system in your combined distribution system.
[2] Systems not conducting *Cryptosporidium* monitoring under 40 CFR 141.701(a)(4) must begin Stage 2 DBPR compliance monitoring by this date. Systems conducting *Cryptosporidium* monitoring under 40 CFR 141.701(a)(4) or 141.701(a)(6) must begin Stage 2 DBPR compliance monitoring by October 1, 2014.

STEP 1: PREPARE & SUBMIT STANDARD MONITORING PLAN

THE REQUIRED ELEMENTS OF A STANDARD MONITORING PLAN ARE:

- Population served by your system.
- System Type: Subpart H (surface water or ground water under the direct influence of surface water) or Ground Water.
- Distribution System Schematic showing:
  - Entry points.
  - Sources.
  - Locations and dates of all projected standard monitoring and Stage 1 DBPR compliance samples.
  - Locations of tanks, booster chlorination and water mains.
  - Justification of Standard Monitoring site selection and a summary of additional data used to support standard monitoring site selection.

HOW TO SELECT STANDARD MONITORING SITES – Your standard monitoring plan must include the locations and dates for one year of monitoring. The monitoring frequency and number of sites required is based on your system's source water and population as shown in Tables 2. These sites are in addition to your Stage 1 DBPR compliance monitoring sites; therefore, you may not use Stage 1 DBPR monitoring locations as standard monitoring sites. In addition, the system will need to determine and monitor during the peak historical month.

Peak Historical Month:
Is the month with the highest TTHM or the highest HAA5 levels or the warmest water temperature. It is meant to represent the "worst case" scenario for DBP formation.

Table 2: Standard Monitoring Requirements for Subpart H Systems

Source Type	Population Size Category	Monitoring Periods and Frequency of Sampling	Distribution System Monitoring Locations [1]				
			Total per monitoring period	Near Entry Points [2]	Average Residence Time	High TTHM Locations	High HAA5 Locations
Subpart H	<500 consecutive	one (during peak historical month)	2	1	-	1	-
	<500 non-consecutive		2		-	1	1
	500-3,300 consecutive	four (every 90 days)	2	1	-	1	-
	500-3,300 non-consecutive		2	-	-	1	1
	3,301-9,999		4	-	1	2	1
	10,000-49,999	six (every 60 days)	8	1	2	3	2
	50,000-249,999		16	3	4	5	4
	250,000-999,999		24	4	6	8	6
	1,000,000-4,999,999		32	6	8	10	8
	≥5,000,000		40	8	10	12	10
Ground	<500 consecutive	one (during peak historical month)	2	1	-	1	-
	<500 non-consecutive		2	-	-	1	1
	500-9,999	Four (every 90 days)	2	-	-	1	1
	10,000-99,999		6	1	1	2	2
	100,000-499,999		8	1	1	3	3
	≥500,000		12	2	2	4	4

[1] When choosing sites consider TTHM and HAA5 Levels, Residence Time, Water Age, Disinfectant Residual, Geographic Coverage of Distribution System, and Hydraulic Representation.

[2] Near Entry Points: If you have more sites than required: choose entry points with the highest flows. If you have fewer sites than required: replace additional sites with TTHM and HAA5 sites.

HOW TO SUBMIT A STANDARD MONITORING PLAN:

Submit Electronically:

- Go To: www.epa.gov/safewater/disinfection/tools and access the IDSE Tool, Plan/Report Entry.
- Create an electronic Standard Monitoring Plan using the template provided in the IDSE Tool.
- Attach schematic and additional information.
- Submit by the Due Date presented in Table 1 (above).
- Keep the confirmation number and copy of your plan for your files.

Submit By Mail:

- Create a Standard Monitoring Plan. A template can be found in the IDSE Guidance Manual.
- Attach schematic and additional information.
- Mail submission to the IPMC:
  US EPA-IPMC
  PO Box 98
  Dayton, OH 45401-0098

STEP 2: CONDUCT STANDARD MONITORING

Once EPA or the state approves your plan, you must conduct standard monitoring at each of the monitoring locations and dates listed in your standard monitoring plan. If you deviate from the approved plan for any reason, you must include an explanation for the deviation in your IDSE Report. During each sample event, you must collect a dual sample set at each location. A dual sample set consists of analyzing one sample for TTHM and another one for HAA5. You must use a certified laboratory and EPA-approved methods for analysis of your TTHM and HAA5 samples.

STEP 3: PREPARE AND SUBMIT IDSE REPORT

The required elements of the IDSE Report are:

- TTHM and HAA5 analytical results from all Stage 1 DBPR and Standard Monitoring conducted during the period of standard monitoring, provided in a tabular or spreadsheet format.
- Explanation of any deviations from the approved standard monitoring plan.
- Recommendations and justification for Stage 2 DBPR compliance monitoring sites and dates.
- If the following information changed from the approved standard monitoring plan, also include:
  - Distribution system schematic.
  - Population served by the system.
  - System type (subpart H or ground water).

HOW TO SELECT STAGE 2 DBPR COMPLIANCE MONITORING SITES AND DATES – You will use results from standard monitoring and Stage 1 DBPR compliance monitoring to select Stage 2 DBPR compliance monitoring sites. The Stage 2 DBPR provides a specific protocol for selecting these sites based on ranking the TTHM and HAA5 locational running annual average (LRAA) for each standard monitoring and Stage 1 DBPR compliance monitoring site. This protocol is summarized in Table 3. If the system decides to recommend an alternative Stage 2 DBPR compliance monitoring site, a justification must be included in the report.

Table 3: Protocol to Select Stage 2 DBPR Compliance Monitoring Locations

Select the location with:	
1 Highest TTHM LRAA	5 Next highest TTHM LRAA
2 Highest HAA5 LRAA	6 Next highest HAA5 LRAA
3* Highest HAA5 LRAA from Stage 1 DBPR sites (Average residence time if surface water, maximum residence time if ground water system)	7* Highest TTHM LRAA from Stage 1 DBPR sites (Average residence time if surface water, maximum residence time if ground water system)
4 Next highest TTHM LRAA.	8 Next highest HAA5 LRAA
*skip this step if you have no more Stage 1 DBPR sites	

As with standard monitoring, you will select your peak historical month and sampling frequency. You should use the peak historical month selected in your standard monitoring plan unless new data suggest another month. The number of sites you select as well as the monitoring frequency is based on your source water type and population, as listed in Table 4. If you sample more than annually, you will conduct Stage 2 DBPR compliance sampling at equal intervals around the peak historical month, based on your required sampling frequency.

Table 4: Stage 2 DBPR Compliance Monitoring Requirements

Source Water Type	Population Size Category	Monitoring Frequency[1]	Distribution System Monitoring Location			
			Total per monitoring period [2]	Highest TTHM Locations	Highest HAA5 Locations	Existing Stage 1 DBPR Compliance Locations
Subpart H	<500	per year	2	1	1	-
	500-3,300	per quarter	2	1	1	-
	3,301-9,999	per quarter	2	1	1	-
	10,000-49,999	per quarter	4	2	1	1
	50,000-249,999	per quarter	8	3	3	2
	250,000-999,999	per quarter	12	5	4	3
	1,000,000-4,999,999	per quarter	16	6	6	4
	≥5,000,000	per quarter	20	8	7	5
Ground	<500	per year	2	1	1	-
	500-9,999	per year	2	1	1	-
	10,000-99,999	per quarter	4	2	1	1
	100,000-499,999	per quarter	6	3	2	1
	≥500,000	per quarter	8	3	3	2

[1] All systems must monitor during the month of highest DBP concentrations.

[2] Systems on quarterly monitoring must take dual sample sets every 90 days at each monitoring location, except for Subpart H systems serving 500-3,300. Systems on annual monitoring and Subpart H systems serving 500-3,300 are required to take individual TTHM and HAA5 samples (instead of a dual sample set) at the locations with the highest TTHM and HAA5 concentrations, respectively. Only one location with a dual sample set per monitoring period in deeded if highest TTHM and HAA5 concentrations occur at the same location, and month, in monitored annually.

STEP 4: PREPARE STAGE 2 DBPR COMPLIANCE MONITORING PLAN

The required elements of the Stage 2 DBPR compliance monitoring plan are the compliance monitoring locations, dates, and compliance calculation procedures. If you decide to include the compliance calculation procedures in your IDSE Report, you will not have to prepare a separate Stage 2 DBPR compliance monitoring plan. However, if you did not include the information required for the Stage 2 DBPR compliance monitoring plan as part of your IDSE Report, your next step will be to prepare this plan before beginning Stage 2 DBPR compliance monitoring. If you are a Subpart H system serving more than 3,300 people, you must submit a copy of the monitoring plan to your state before Stage 2 DBPR compliance monitoring begins. Also, systems should check with their states in case there are state requirements, in addition to the Federal requirements, that need to be included in the IDSE Report.

ADDITIONAL GUIDANCE MATERIALS

The following guidance materials address the IDSE requirements for the Stage 2 DBPR:

- *Initial Distribution System Evaluation Guidance Manual for the Final Stage 2 Disinfectants and Disinfection Byproducts Rule* (EPA 815-B-06-002) - This manual is a comprehensive technical guidance document for all system sizes and types and all IDSE options.

- *Initial Distribution System Evaluation Guide for Systems Serving < 10,000 People For the Final Stage 2 Disinfectants and Disinfection Byproducts Rule* (EPA 815-B-06-001) - This manual focuses on information that systems serving less than 10,000 are most likely to use. It does not discuss the IDSE system specific study option.

- *IDSE Tool* – Is a web-based tool that walks the user through the IDSE process. A Wizard determines IDSE requirements and selects the best IDSE option for your system. The tool creates Custom Forms your system (based on population served and system type) can submit electronically to EPA's Information Processing and Management Center for EPA/state review. (Available on-line at www.epa.gov/safewater/disinfection/tools.)

For additional guidance on the Stage 2 DBPR, you may refer to the following existing and future EPA materials:

- Stage 2 DBPR Quick Reference Guides (Schedules 1 – 4).

- Simultaneous Compliance Guidance Manuals for the Stage 2 Rules (draft version anticipated mid-2006).

- Stage 2 Disinfectant and Disinfection Byproducts Rule: Small Entity Compliance Guide – One of the Simple Tools for Effective Performance (STEP) Guide Series (draft version anticipated late 2006).

- Consecutive System Guidance Manual for the Final Stage 2 Disinfectants and Disinfection Byproducts Rule (draft version anticipated late 2006).

- Operational Evaluation Guidance Manual for the Final Stage 2 Disinfectants and Disinfection Byproducts Rule (draft version anticipated late 2006).

Materials can be downloaded from www.epa.gov/safewater/disinfection/stage2, as they become available.

For additional information, please contact the Safe Drinking Water Hotline at 1-800-426-4791, send an email to stage2mdbp@epa.gov, or visit www.epa.gov/safewater/disinfection/stage2.

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Stage 2 DBPR
IDSE System Specific Study Factsheet

What Is The Stage 2 DBPR?

The U.S. Environmental Protection Agency (EPA) published the Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) on January 4, 2006. The Stage 2 DBPR builds on existing regulations by requiring water systems to meet disinfection byproduct (DBP) maximum contaminant levels (MCLs) at each monitoring site in the distribution system to better protect public health.

What Is The IDSE Provision Of The Stage 2 DBPR?

The Stage 2 DBPR includes a provision requiring all community water systems (CWS) and only nontransient noncommunity water systems (NTNCWS) serving more than 10,000 people to conduct an initial distribution system evaluation (IDSE). NTNCWS serving less than 10,000 are exempted from IDSE requirements, but will need to comply with the Stage 2 DBPR compliance monitoring requirements. The goal of the IDSE is to characterize the distribution system and identify monitoring sites where customers may be exposed to high levels of total trihalomethanes (TTHM) and haloacetic acids (HAA5). There are four ways to comply with the IDSE requirements: Standard Monitoring, System Specific Study (SSS), 40/30 Certification (40/30), and Very Small System (VSS) Waiver. SSS is an option for systems that have extensive existing DBP data or have prepared a hydraulic model that can be used to determine locations of high DBP levels in their distribution system. Systems will have to meet minimum requirements to perform either option. This factsheet provides information regarding the SSS option for both Existing Monitoring and for Hydraulic Modeling.

What is a System Specific Study (SSS)?

SSS – Existing Monitoring

An evaluation of a system's DBP levels based on existing monitoring data collected throughout the distribution system and during the peak historical month. The rule requires a minimum number of samples and specific locations in the distribution system. This IDSE option is most likely to be used by systems that have extensive operational DBP data in addition to Stage 1 DBPR compliance monitoring data. Systems may use a combination of all qualifying data (i.e., existing operational and compliance data) to determine the best locations for Stage 2 DBPR compliance monitoring.

SSS – Hydraulic Modeling

An evaluation of a system's DBP levels based on results of an Extended Period Simulation (EPS) hydraulic model using water age as a surrogate for DBP formation. This IDSE option is most likely to be used by systems that have a high level of technical expertise and already utilize modeling technologies outside of the IDSE process. The model must meet the minimum requirements presented in the rule, such as percentage of distribution system represented by the model and calibration. The model results are used in conjunction with Stage 1 DBPR compliance data and one round of monitoring during the IDSE to select the best locations for Stage 2 DBPR compliance monitoring.

SYSTEM SPECIFIC STUDY REQUIREMENTS

Systems opting to conduct an SSS will need to:

- Step 1: Prepare and submit an SSS Plan by the date specified in Table 1 (below).
- Step 2: Address additional SSS requirements.
- Step 3: Prepare and submit the IDSE Report.
- Step 4: Prepare a Stage 2 DBPR compliance monitoring plan.

If you are conducting an SSS for IDSE compliance, you will be required to prepare a study plan, possibly conduct some additional monitoring, develop an IDSE Report, and prepare a Stage 2 DBPR compliance monitoring plan. These documents must be submitted by the deadlines listed in Table 1; however, you can submit two or all three of the documents as one submission as long as the required elements of each document are included and the deadline for the earliest document is met.

Table 1: SSS Compliance Dates

If you are a system serving:	Schedule:[1]	SSS Plan Due Date:	Submit IDSE Report By:	Begin Compliance Monitoring by:
At least 100,000 people or part of a combined distribution system serving at least 100,000 people	Schedule 1	October 1, 2006	January 1, 2009	April 1, 2012
50,000 to 99,999 people or part of a combined distribution system serving 50,000 to 99,999 people	Schedule 2	April 1, 2007	July 1, 2009	October 1, 2012
10,000 to 49,999 people or part of a combined distribution system serving 10,000 to 49,999 people	Schedule 3	October 1, 2007	January 1, 2010	October 1, 2013
Less than 10,000 or part of a combined distribution system serving less than 10,000	Schedule 4	April 1, 2008	July 1, 2010	October 1, 2013 [2]

[1] Your schedule is defined by the largest system in your combined distribution system.

[2] Systems not conducting *Cryptosporidium* monitoring under 40 CFR 141.701(a)(4) must begin Stage 2 DBPR compliance monitoring by this date. Systems conducting *Cryptosporidium* monitoring under 40 CFR 141.701(a)(4) or 141.701(a)(6) must begin Stage 2 DBPR compliance monitoring by October 1, 2014.

STEP 1: PREPARE & SUBMIT SYSTEM SPECIFIC STUDY PLAN

THE REQUIRED ELEMENTS OF AN SSS PLAN INCLUDE:

- Population served by your system.
- System Type: Subpart H (surface water or ground water under the direct influence of surface water) or Ground Water.
- Distribution System Schematic showing:
  - Entry Points
  - Sources
  - Locations and dates of all planned or completed SSS monitoring
  - Locations and dates of planned Stage 1 DBPR compliance samples

Specific requirements for each type of SSS are listed on the next page. If you meet the requirements for the IDSE Report, you may submit the SSS Plan and IDSE Report together.

HOW TO SUBMIT AN SSS PLAN:

Submit Electronically:

- Go To: www.epa.gov/safewater/disinfection/tools and access the IDSE Tool, Plan/Report Entry.
- Create an electronic SSS Plan using the template provided in the IDSE Tool.
- Attach schematic and additional information.
- Submit by the Due Date presented in Table 1 (above).
- Keep the confirmation number and copy of your plan for your files.

Submit By Mail:

- Create an SSS Plan. A template can be found in the IDSE Guidance Manual.
- Attach schematic and additional information.
- Mail submission to the IPMC:
  US EPA-IPMC
  PO Box 98
  Dayton, OH 45401-0098

STEP 2: ADDRESS ADDITIONAL SYSTEM SPECIFIC STUDY REQUIREMENTS

THE SPECIFIC ELEMENTS REQUIRED FOR AN EXISTING MONITORING SYSTEM SPECIFIC STUDY PLAN:

- Previously collected monitoring results: Data must be no more than 5 years old as of the due date of submission and must have been analyzed by approved methods.
- Certification that:
  - All compliance and operational data taken during the SSS period are included.
  - Distribution system and treatment have not significantly changed since the period of SSS data.
  - Samples are representative of the entire distribution system.
- Locations and frequency of sampling must meet the requirements of Table 2 and each site must be sampled at least once during peak historical month (i.e., high TTHM, high HAA5, or high water temperature) for each 12 months of qualifying data. If additional data is needed to meet minimum requirements, the SSS monitoring plan must include the locations and dates for proposed SSS monitoring.

Table 2: Monitoring Requirements for Existing Monitoring SSS

Source Water Type	Population Size Category	Total per monitoring period	Minimum Number of Samples	
			TTHM	HAA5
Subpart H	<500	3	3	3
	500-3,300	3	9	9
	3,301-9,999	6	36	36
	10,000-49,999	12	72	72
	50,000-249,999	24	144	144
	250,000-999,999	36	216	216
	1,000,000-4,999,999	48	288	288
	$5,000,000	60	360	360
Ground	<500	3	3	3
	500-9,999	3	9	9
	10,000-99,999	12	48	48
	100,000-499,999	18	72	72
	$500,000	24	96	96

THE SPECIFIC ELEMENTS REQUIRED FOR A HYDRAULIC MODELING SYSTEM SPECIFIC STUDY PLAN:

- Model must be an Extended Period Simulation (EPS) model and must simulate 24-hour variation in demand and show a consistently repeating 24-hour pattern of residence time.
- Tabular or spreadsheet data demonstrating that the model includes:
  - 75 percent of pipe volume and 50 percent of pipe length.
  - All pressure zones.
  - All 12-inch diameter and larger pipes.
  - All 8-inch and larger pipes that connect pressure zones, influence zones from different sources, storage facilities, major demand areas, pumps, and control valves, or are known or expected to be significant conveyors of water.
  - All 6-inch and larger pipes that connect remote areas of a distribution system to the main portion of the system.
  - All storage facilities with standard operations represented.
  - All active pump stations with controls and all active control valves.
- Description of calibration activities undertaken including (if calibration is complete):
  - A graph of predicted tank levels vs. measured tank levels for the storage facility with the highest residence time in each pressure zone.
  - A time series graph of the residence time at the longest residence time storage facility in the distribution system showing the predictions for the entire simulation period.
- Model output showing preliminary 24-hr average residence time predictions throughout the system.
- Timing and number of samples representative of distribution system for at least one monitoring period of TTHM and HAA5 monitoring at no less than the number of locations required under standard monitoring during the peak historical month. These samples must be taken at locations other than existing Stage 1 DBPR compliance monitoring locations.
- A description of how all requirements will be completed within 12 months of plan submission.

Peak Historical Month:

Is the month with the highest TTHM or the highest HAA5 levels or the warmest water temperature. It is meant to represent the "worst case" scenario for DBP formation.

STEP 3: PREPARE AND SUBMIT IDSE REPORT

The primary purpose of the IDSE Report is to provide EPA or the state with the system's recommendations for where and at what frequency Stage 2 DBPR compliance monitoring will be conducted.

The required elements of the IDSE Report are:

- Recommendations for Stage 2 DBPR monitoring sites and dates.
- Basis (analytical results and modeling) and justification for selection of recommended Stage 2 DBPR monitoring sites.
- TTHM and HAA5 analytical results in a tabular or spreadsheet format from all Stage 1 DBPR and SSS monitoring conducted during the period of the SSS.
- An explanation of any deviation from the approved SSS plan.

- If any of the following changed from your study plan:

    - Population served.
    - System type (subpart H or ground).
    - Distribution system schematic.

In addition, if you are conducting a Hydraulic Modeling SSS you must provide your **final calibration** information (if not already provided with the IDSE plan) and a **24-hr time series graph of residence time for all Stage 2 DBPR monitoring sites selected**. If you include the bold items above in your plan, you will not have to prepare a separate IDSE Report.

IDSE Report can be submitted the same way as the SSS Plan, as described under Step 1 of this factsheet.

STEP 4: PREPARE STAGE 2 DBPR COMPLIANCE MONITORING PLAN

The required elements of the Stage 2 DBPR compliance monitoring plan are the compliance monitoring locations and dates and compliance calculation procedures. If you decide to include the compliance calculation procedures in your IDSE Report, you will not have to prepare a separate Stage 2 DBPR compliance monitoring plan. However, if you did not include the information required for the Stage 2 DBPR compliance monitoring plan as part of your IDSE Report, your next step will be to prepare this plan before beginning Stage 2 DBPR compliance monitoring. If you are a Subpart H system serving more than 3,300 people, you must submit a copy of the monitoring plan to your state before Stage 2 DBPR compliance monitoring begins. Also, systems should check with their states in case there are state requirements, in addition to the Federal requirements, that need to be included in the IDSE Report.

ADDITIONAL GUIDANCE MATERIALS

The following guidance materials address the IDSE requirements for the Stage 2 DBPR:

- *Initial Distribution System Evaluation Guidance Manual for the Final Stage 2 Disinfectants and Disinfection Byproducts Rule* (EPA 815-B-06-002) - This manual is a comprehensive technical guidance document for all system sizes and types and all IDSE options.

- *IDSE Tool* – Is a web-based tool that walks the user through the IDSE process. A Wizard determines IDSE requirements and selects the best IDSE option for your system. The tool creates Custom Forms your system (based on population served and system type) can submit electronically to EPA's Information Processing and Management Center for EPA/state review. (Available on-line at www.epa.gov/safewater/disinfection/tools.)

For additional guidance on the Stage 2 DBPR, you may refer to the following existing and future EPA materials:

- Stage 2 DBPR Quick Reference Guides (Schedules 1 – 4).

- Simultaneous Compliance Guidance Manuals for the Stage 2 Rules (draft version anticipated mid-2006).

- Stage 2 Disinfectant and Disinfection Byproducts Rule: Small Entity Compliance Guide – One of the Simple Tools for Effective Performance (STEP) Guide Series (draft version anticipated late 2006).

- Consecutive System Guidance Manual for the Final Stage 2 Disinfectants and Disinfection Byproducts Rule (draft version anticipated late 2006).

- Operational Evaluation Guidance Manual for the Final Stage 2 Disinfectants and Disinfection Byproducts Rule (draft version anticipated late 2006).

Materials can be downloaded from www.epa.gov/safewater/disinfection/stage2, as they become available.

For additional information, please contact the Safe Drinking Water Hotline at 1-800-426-4791, send an email to stage2mdbp@epa.gov, or visit www.epa.gov/safewater/disinfection/stage2.

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Stage 2 DBPR
IDSE 40/30 Certification and Very Small System Waiver Factsheet

What Is The Stage 2 DBPR?

The U.S. Environmental Protection Agency (EPA) published the Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) on January 4, 2006. The Stage 2 DBPR builds on existing regulations by requiring water systems to meet disinfection byproduct (DBP) maximum contaminant levels (MCLs) at each monitoring site in the distribution system to better protect public health.

What Is The IDSE Provision Of The Stage 2 DBPR?

The Stage 2 DBPR includes a provision requiring all community water systems (CWS) and only nontransient noncommunity water systems (NTNCWS) serving more than 10,000 people to conduct an initial distribution system evaluation (IDSE). NTNCWS serving less than 10,000 are exempted from IDSE requirements, but will need to comply with the Stage 2 DBPR compliance monitoring requirements. The goal of the IDSE is to characterize the distribution system and identify monitoring sites where customers may be exposed to high levels of total trihalomethanes (TTHM) and haloacetic acids (HAA5). There are four ways to comply with the IDSE requirements: Standard Monitoring, System Specific Study, 40/30 Certification (40/30), and Very Small System (VSS) Waiver. The 40/30 and the VSS Waiver allows a system to comply with the IDSE requirement without having to conduct additional distribution system monitoring. This factsheet provides information regarding 40/30 and VSS Waiver eligibility criteria and requirements.

Eligibility Criteria for 40/30 Certification & Very Small System Waiver

40/30 Certification

To be eligible for a 40/30, the system must meet all of the following requirements for eight consecutive quarters, as dictated by its Schedule*:

- Collected all required Stage 1 DBPR samples.
- No individual TTHM samples exceeded 0.040 mg/L and no individual HAA5 samples exceeded 0.030 mg/L.
- The system has not had any TTHM or HAA5 monitoring violations.

Very Small System Waiver

To be eligible for a VSS Waiver, the system must meet all of the following requirements:

- System serves less than 500 people.
- System has collected eligible TTHM & HAA5 data.

VSS eligibility does not depend on TTHM and HAA5 sample results. Samples do not need to be below any particular level for the system to receive the VSS Waiver.

* Eligibility & Compliance Dates for 40/30 are found in Table 1.

IF I MEET THE ELIGIBILITY CRITERIA, HOW DO I APPLY FOR A 40/30?

Submit Electronically:

- Go To: www.epa.gov/safewater/disinfection/tools and access the IDSE Tool, Plan/Report Entry.
- Create a custom 40/30 Certification Letter.
- Attach additional information if required.*
- Submit by the Due Date presented in Table 1 (below).
- Keep the confirmation number and a copy of your 40/30 Certification Letter for your files.

Submit By Mail:

- Create a 40/30 Certification Letter. A 40/30 Certification template can be found in the IDSE Guidance Manual.
- Attach additional information, if required.*
- Mail submission to the IPMC:

  US EPA-IPMC
  PO Box 98
  Dayton, OH 45401-0098

*EPA or the state may require a system to submit the following additional information with the 40/30 submission:

- Stage 1 DBPR Compliance Monitoring Data
- Distribution System Schematic
- Proposed Stage 2 DBPR Compliance Monitoring locations

Systems are encouraged to check with EPA or the state to determine if they need to submit any additional information.

Table 1: 40/30 Criteria Compliance Dates

If you are a system serving:	Schedule:[1]	Date Eligibility:	40/30 Due Date:
At least 100,000 people or part of a combined distribution system serving at least 100,000 people	Schedule 1	Eight Consecutive Quarters Starting No Earlier than January 2004	October 1, 2006
50,000 to 99,999 people or part of a combined distribution system serving 50,000 to 99,999 people	Schedule 2	Eight Consecutive Quarters Starting No Earlier than January 2004	April 1, 2007
10,000 to 49,999 people or part of a combined distribution system serving 10,000 to 49,999 people	Schedule 3	Eight Consecutive Quarters Starting No Earlier than January 2005	October 1, 2007
Less than 10,000 or part of a combined distribution system serving less than 10,000	Schedule 4	Eight Consecutive Quarters Starting No Earlier than January 2005	April 1, 2008

[1] Your schedule is defined by the largest system in your combined distribution system.

WHAT IF I HAVE OPERATIONAL DATA BUT NO STAGE 1 DBPR COMPLIANCE DATA?

Systems that have not conducted compliance monitoring under the Stage 1 DBPR but have TTHM and HAA5 operational data should contact EPA or the state to determine if the data is sufficient to qualify for the 40/30 or VSS Waiver. The operational data must have been:

- Analyzed by an EPA-approved method
- Analyzed by a certified laboratory
- Collected in areas representative of the Maximum Residence Time
- Collected during the month of warmest water temperature

WHAT DOES IT MEAN TO RECEIVE AN APPROVED 40/30 OR VSS WAIVER?

An approved 40/30 or VSS Waiver satisfies the IDSE requirement of the Stage 2 DBPR without requiring additional monitoring. However, a system with an approved 40/30 or VSS Waiver will need to submit a Stage 2 DBPR compliance monitoring plan and will need to start Stage 2 DBPR compliance monitoring, as indicated by the rule, based on its Schedule.

IF I MEET THE ELIGIBILITY CRITERIA, HOW DO I APPLY FOR A VSS WAIVER?

Systems that meet the VSS Waiver eligibility criteria automatically qualify for the VSS Waiver, unless they are contacted by EPA or the state and informed that they must complete Standard Monitoring or System Specific Study.

WHEN WILL I KNOW IF MY 40/30 OR VSS WAIVER HAS BEEN APPROVED?

40/30 Approval:

EPA and the state are not required to send a confirmation that a 40/30 certification has been accepted. If EPA or the state does not contact you within a year after the 40/30 submission deadline (see Table 1), you may assume the 40/30 certification has been accepted. Otherwise, EPA or the state will inform you that you must conduct Standard Monitoring or System Specific Study.

VSS Waiver Approval:

EPA and the state are not required to send a confirmation that a VSS Waiver has been approved. EPA or the state will contact those systems required to conduct Standard Monitoring or System Specific Study. For systems serving less than 500 people, standard monitoring consists of preparing a monitoring plan, collecting TTHM/HAA5 samples at two locations in the distribution system and completing an IDSE Report (see the IDSE Guidance Manual for more information at www.epa.gov/safewater/disinfection/stage2).

NEXT STEPS

If your system meets the 40/30 or VSS WAIVER criteria and EPA or the state does not notify you that you need to conduct Standard Monitoring or System Specific Study, your system has satisfied the IDSE requirements. However, your system will still need to prepare a compliance monitoring plan for Stage 2 DBPR. This plan must be completed before your system is required to begin Stage 2 DBPR compliance monitoring. Your system will need to continue monitoring under Stage 1 DBPR until Stage 2 DBPR compliance monitoring begins (see Table 2).

Table 2: Stage 2 DBPR Compliance Monitoring

If you are on IDSE Schedule:[1]	You must begin Stage 2 DBPR monitoring:
Schedule 1	April 1, 2012
Schedule 2	October 1, 2012
Schedule 3	October 1, 2013
Schedule 4	October 1, 2013 if no Cryptosporidium monitoring required under LT2ESWTR. **OR** October 1, 2014 if Cryptosporidium monitoring is required under LT2ESWTR.

[1] Schedule for systems in a combined distribution system is based on that of the largest system in the combined distribution system.

ADDITIONAL GUIDANCE MATERIALS

The following guidance materials address the IDSE requirements for the Stage 2 DBPR:

- *Initial Distribution System Evaluation Guidance Manual for the Final Stage 2 Disinfectants and Disinfection Byproducts Rule* (EPA 815-B-06-002) - This manual is a comprehensive technical guidance document about all IDSE options, for all system sizes and types.

- *Initial Distribution System Evaluation Guide for Systems Serving < 10,000 People For the Final Stage 2 Disinfectants and Disinfection Byproducts Rule* (EPA 815-B-06-001) - This manual focuses on information that systems serving less than 10,000 are most likely to use. It does not discuss the IDSE system specific study option.

- *IDSE Tool* – Is a web-based tool that walks the user through the IDSE process. A Wizard determines IDSE requirements and selects the best IDSE option for your system. The tool creates Custom Forms your system (based on population served and system type) can submit electronically to EPA's Information Processing and Management Center for EPA/state review. (Available on-line at www.epa.gov/safewater/disinfection/tools.)

For additional guidance on the Stage 2 DBPR, you may refer to the following existing and future EPA materials:

- Stage 2 DBPR Quick Reference Guides (Schedules 1 – 4).

- Simultaneous Compliance Guidance Manuals for the Stage 2 Rules (draft version anticipated mid-2006).

- Stage 2 Disinfectant and Disinfection Byproducts Rule: Small Entity Compliance Guide – One of the Simple Tools for Effective Performance (STEP) Guide Series (draft version anticipated late 2006).

- Consecutive System Guidance Manual for the Final Stage 2 Disinfectants and Disinfection Byproducts Rule (draft version anticipated late 2006).

- Operational Evaluation Guidance Manual for the Final Stage 2 Disinfectants and Disinfection Byproducts Rule (draft version anticipated late 2006).

Materials can be downloaded from www.epa.gov/safewater/disinfection/stage2, as they become available.

For additional information, please contact the Safe Drinking Water Hotline at 1-800-426-4791, send an email to stage2mdbp@epa.gov, or visit www.epa.gov/safewater/disinfection/stage2.

EPA United States Environmental Protection Agency

Stage 2 Disinfectants and Disinfection Byproducts Rule: A Quick Reference Guide For Schedule 1 Systems

Overview of the Rule

Title	Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) 71 FR 388, January 4, 2006, Vol. 71, No. 2
Purpose	To increase public health protection by reducing the potential risk of adverse health effects associated with disinfection byproducts (DBPs) throughout the distribution system. Builds on the Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBPR) by focusing on monitoring for and reducing concentrations of two classes of DBPs - TTHM and HAA5 - in drinking water.
General Description	Stage 2 DBPR requires some systems to complete an Initial Distribution System Evaluation (IDSE) to characterize DBP levels in their distribution systems and identify locations to monitor DBPs for Stage 2 DBPR compliance. The Stage 2 DBPR bases TTHM and HAA5 compliance on a locational running annual average (LRAA) calculated at each monitoring location.
Utilities Covered *	▸ All community water systems (CWSs) and nontransient noncommunity water systems (NTNCWSs) that either add a primary or residual disinfectant other than ultraviolet light, or deliver water that has been treated with a primary or residual disinfectant other than ultraviolet light. ▸ Schedule 1 includes CWSs and NTNCWSs serving 100,000 or more people OR CWSs and NTNCWSs that are part of a combined distribution system in which the largest system serves 100,000 or more people.

*** NTNCWSs serving < 10,000 people do not need to complete any of the IDSE options, but must conduct Stage 2 DBPR compliance monitoring.**

Stage 2 DBPR Regulated Contaminants

Regulated Contaminants		MCLG (mg/L)	MCL (mg/L)
Total Trihalomethanes (TTHM)			**0.080 LRAA**
	Chloroform	0.07	
	Bromodichloromethane	zero	
	Dibromochloromethane	0.06	
	Bromoform	zero	
Five Haloacetic Acids (HAA5)			**0.060 LRAA**
	Monochloroacetic acid	0.07	
	Dichloroacetic acid	zero	
	Trichloroacetic acid	0.02	
	Bromoacetic acid	-	
	Dibromoacetic acid	-	

IDSE Requirements**

IDSE Option	Description
Standard Monitoring	Standard monitoring is one year of increased monitoring for TTHM and HAA5 in addition to the data being collected under Stage 1 DBPR. These data will be used with Stage 1 DBPR data to select Stage 2 DBPR TTHM and HAA5 compliance monitoring locations. Any system may conduct standard monitoring to meet the IDSE requirements of the Stage 2 DBPR.
System Specific Study (SSS)	Systems that have extensive TTHM and HAA5 data (including Stage 1 DBPR compliance data) or technical expertise to prepare a hydraulic model may choose to conduct a system specific study to select Stage 2 DBPR compliance monitoring locations.
40/30 Certification †	The term "40/30" refers to a system that during a specific time period has all individual Stage 1 DBPR compliance samples less than or equal to 0.040 mg/L for TTHM and 0.030 mg/L for HAA5 and has no monitoring violations during the same time period. These systems have no IDSE monitoring requirements, but will still need to conduct Stage 2 DBPR compliance monitoring.
Very Small System (VSS) Waiver †	Systems that serve fewer than 500 people and have eligible TTHM and HAA5 data can qualify for a VSS Waiver and would not be required to conduct IDSE monitoring. These systems have no IDSE monitoring requirements, but will still need to conduct Stage 2 DBPR compliance monitoring.
EPA has developed several tools to assist systems with complying with the Stage 2 DBPR IDSE requirements. These materials can be downloaded at www.epa.gov/safewater/disinfection/stage2.	

**** NTNCWSs serving < 10,000 people do not need to complete any of the IDSE options.**
† Systems that are notified by EPA or the state their VSS waiver or 40/30 certification has not been approved will need to complete Standard Monitoring or System Specific Study.

For additional information on the Stage 2 DBPR

Call the Safe Drinking Water Hotline at 1-800-426-4791; visit the EPA web site at www.epa.gov/safewater/disinfection/stage2; or contact your state drinking water representative.

Compliance with Stage 2 DBPR MCLs (Routine Monitoring)

Source Water Type	Population Size Category	Monitoring Frequency [1]	Total Distribution System Monitoring Locations Per Monitoring Period [2]
Subpart H	<500	per year	2
	500-3,300	per quarter	2
	3,301-9,999	per quarter	2
	10,000-49,999		4
	50,000-249,999		8
	250,000-999,999		12
	1,000,000-4,999,999		16
	≥5,000,000		20
Ground Water	<500	per year	2
	500-9,999		2
	10,000-99,999	per quarter	4
	100,000-499,999		6
	≥500,000		8

Operational Evaluation

Systems must begin complying with the operational evaluation provision of the Stage 2 DBPR.

[1] All systems must monitor during month of highest DBP concentrations.

[2] Systems on quarterly monitoring must take dual sample sets every 90 days at each monitoring location, except for subpart H systems serving 500-3,300. Systems on annual monitoring and subpart H systems serving 500-3,300 are required to take individual TTHM and HAA5 samples (instead of a dual sample set) at the locations with the highest TTHM and HAA5 concentrations, respectively. If monitoring annually, only one location with a dual sample set per monitoring period is needed if highest TTHM and HAA5 concentrations occur at the same location, and month.

Critical Deadlines and Requirements

For Drinking Water Systems (Schedule 1)

January 4, 2006	Systems serving fewer than 500 people that have TTHM and HAA5 compliance data qualify for a VSS Waiver from conducting an IDSE, unless informed otherwise by U.S. EPA or state primacy agency.
October 1, 2006	Systems that do not receive a VSS Waiver must submit to the U.S EPA or state primacy agency either a: ▸ Standard monitoring plan, ▸ System specific study plan, or ▸ 40/30 certification.
October 1, 2007	Systems conducting standard monitoring or SSS begin collecting samples in accordance with their approved plan.
September 30, 2008	No later than this date, systems conducting standard monitoring or a SSS complete their monitoring or study.
January 1, 2009	No later than this date, systems conducting standard monitoring or a SSS must submit their IDSE report.
April 1, 2009	Consecutive systems must begin monitoring for chlorine or chloramines as specified under the Stage 1 DBPR.
April 1, 2012	No later than this date, systems must: ▸ Complete their Stage 2 DBPR Compliance Monitoring Plan (Systems serving more than 3,300 people must submit their Monitoring Plan to the state.)* ▸ Begin complying with monitoring requirements of the Stage 2 DBPR.†
January 2013	Systems must begin complying with rule requirements to determine compliance with the operational evaluation levels for TTHMs and HAA5s.

For States

January - June 2006	States are encouraged to inform systems serving fewer than 500 people and do not qualify for a VSS Waiver from the IDSE requirements should begin complying with standard monitoring requirements.
September 30, 2007	States must approve the system's standard monitoring plan, 40/30 certification, or system specific study plan or notify the system that the state has not completed its review.
October 4, 2007	States are encouraged to submit final primacy applications or extension requests to EPA.
January 4, 2008	Final primacy applications must be submitted to EPA, unless granted an extension.
March 31, 2009	States must approve the system's IDSE report or notify the system that the state has not completed its review of the IDSE report.
January 4, 2010	Final primacy revision applications from states with approved 2-year extensions agreements must be submitted to EPA.

* A monitoring plan is not required if the IDSE report includes all information required in the monitoring plan.
† States may allow up to an additional 24 months for compliance with MCLs for systems requiring capital improvements.

EPA United States Environmental Protection Agency

Stage 2 Disinfectants and Disinfection Byproducts Rule: A Quick Reference Guide For Schedule 2 Systems

Overview of the Rule

Title	Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) 71 FR 388, January 4, 2006, Vol. 71, No. 2
Purpose	To increase public health protection by reducing the potential risk of adverse health effects associated with disinfection byproducts (DBPs) throughout the distribution system. Builds on the Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBPR) by focusing on monitoring for and reducing concentrations of two classes of DBPs - TTHM and HAA5 - in drinking water.
General Description	Stage 2 DBPR requires some systems to complete an Initial Distribution System Evaluation (IDSE) to characterize DBP levels in their distribution systems and identify locations to monitor DBPs for Stage 2 DBPR compliance. The Stage 2 DBPR bases TTHM and HAA5 compliance on a locational running annual average (LRAA) calculated at each monitoring location.
Utilities Covered *	▸ All community water systems (CWSs) and nontransient noncommunity water systems (NTNCWSs) that either add a primary or residual disinfectant other than ultraviolet light, or deliver water that has been treated with a primary or residual disinfectant other than ultraviolet light. ▸ Schedule 2 includes CWSs and NTNCWSs serving 50,000 to 99,999 people OR CWSs and NTNCWSs that are part of a combined distribution system in which the largest system serves 50,000 to 99,999 people.

*** NTNCWSs serving < 10,000 people do not need to complete any of the IDSE options, but must conduct Stage 2 DBPR compliance monitoring.**

Stage 2 DBPR Regulated Contaminants

Regulated Contaminants		MCLG (mg/L)	MCL (mg/L)
Total Trihalomethanes (TTHM)			**0.080 LRAA**
	Chloroform	0.07	
	Bromodichloromethane	zero	
	Dibromochloromethane	0.06	
	Bromoform	zero	
Five Haloacetic Acids (HAA5)			**0.060 LRAA**
	Monochloroacetic acid	0.07	
	Dichloroacetic acid	zero	
	Trichloroacetic acid	0.02	
	Bromoacetic acid	-	
	Dibromoacetic acid	-	

IDSE Requirements**

IDSE Option	Description
Standard Monitoring	Standard monitoring is one year of increased monitoring for TTHM and HAA5 in addition to the data being collected under Stage 1 DBPR. These data will be used with Stage 1 DBPR data to select Stage 2 DBPR TTHM and HAA5 compliance monitoring locations. Any system may conduct standard monitoring to meet the IDSE requirements of the Stage 2 DBPR.
System Specific Study (SSS)	Systems that have extensive TTHM and HAA5 data (including Stage 1 DBPR compliance data) or technical expertise to prepare a hydraulic model may choose to conduct a system specific study to select Stage 2 DBPR compliance monitoring locations.
40/30 Certification †	The term "40/30" refers to a system that during a specific time period has all individual Stage 1 DBPR compliance samples less than or equal to 0.040 mg/L for TTHM and 0.030 mg/L for HAA5 and has no monitoring violations during the same time period. These systems have no IDSE monitoring requirements, but will still need to conduct Stage 2 DBPR compliance monitoring.
Very Small System (VSS) Waiver †	Systems that serve fewer than 500 people and have eligible TTHM and HAA5 data can qualify for a VSS Waiver and would not be required to conduct IDSE monitoring. These systems have no IDSE monitoring requirements, but will still need to conduct Stage 2 DBPR compliance monitoring.
EPA has developed several tools to assist systems with complying with the Stage 2 DBPR IDSE requirements. These materials can be downloaded at www.epa.gov/safewater/disinfection/stage2.	

**** NTNCWSs serving < 10,000 people do not need to complete any of the IDSE options.**
† Systems that are notified by EPA or the state their VSS waiver or 40/30 certification has not been approved will need to complete Standard Monitoring or System Specific Study.

For additional information on the Stage 2 DBPR

Call the Safe Drinking Water Hotline at 1-800-426-4791; visit the EPA web site at www.epa.gov/safewater/disinfection/stage2; or contact your state drinking water representative.

Compliance with Stage 2 DBPR MCLs (Routine Monitoring)

Source Water Type	Population Size Category	Monitoring Frequency [1]	Total Distribution System Monitoring Locations Per Monitoring Period [2]
Subpart H	<500	per year	2
	500-3,300	per quarter	2
	3,301-9,999	per quarter	2
	10,000-49,999		4
	50,000-249,999		8
	250,000-999,999		12
	1,000,000-4,999,999		16
	≥5,000,000		20
Ground Water	<500	per year	2
	500-9,999		2
	10,000-99,999	per quarter	4
	100,000-499,999		6
	≥500,000		8

Operational Evaluation

Systems must begin complying with the operational evaluation provision of the Stage 2 DBPR.

[1] All systems must monitor during month of highest DBP concentrations.

[2] Systems on quarterly monitoring must take dual sample sets every 90 days at each monitoring location, except for subpart H systems serving 500-3,300. Systems on annual monitoring and subpart H systems serving 500-3,300 are required to take individual TTHM and HAA5 samples (instead of a dual sample set) at the locations with the highest TTHM and HAA5 concentrations, respectively. If monitoring annually, only one location with a dual sample set per monitoring period is needed if highest TTHM and HAA5 concentrations occur at the same location, and month.

Critical Deadlines and Requirements

For Drinking Water Systems (Schedule 2)

January 4, 2006	Systems serving fewer than 500 people that have TTHM and HAA5 compliance data qualify for a VSS Waiver from conducting an IDSE, unless informed otherwise by U.S. EPA or state primacy agency.
April 1, 2007	Systems that do not receive a VSS Waiver must submit to the U.S EPA or state primacy agency either a: ▸ Standard monitoring plan, ▸ System specific study plan, or ▸ 40/30 certification.
April 1, 2008	Systems conducting standard monitoring or SSS begin collecting samples in accordance with their approved plan.
March 31, 2009	No later than this date, systems conducting standard monitoring or a SSS complete their monitoring or study.
July 1, 2009	No later than this date, systems conducting standard monitoring or a SSS must submit their IDSE report.
April 1, 2009	Consecutive systems must begin monitoring for chlorine or chloramines as specified under the Stage 1 DBPR.
October 1, 2012	No later than this date, systems must: ▸ Complete their Stage 2 DBPR Compliance Monitoring Plan (Systems serving more than 3,300 people must submit their Monitoring Plan to the state.)* ▸ Begin complying with monitoring requirements of the Stage 2 DBPR.†
July 2013	Systems must begin complying with rule requirements to determine compliance with the operational evaluation levels for TTHMs and HAA5s.

For States

January - June 2006	States are encouraged to inform systems serving fewer than 500 people and do not qualify for a VSS Waiver from the IDSE requirements should begin complying with standard monitoring requirements.
March 31, 2008	States must approve the system's standard monitoring plan, 40/30 certification, or system specific study plan or notify the system that the state has not completed its review.
October 4, 2007	States are encouraged to submit final primacy applications or extension requests to EPA.
January 4, 2008	Final primacy applications must be submitted to EPA, unless granted an extension.
September 30, 2009	States must approve the system's IDSE report or notify the system that the state has not completed its review of the IDSE report.
January 4, 2010	Final primacy revision applications from states with approved 2-year extensions agreements must be submitted to EPA.

* A monitoring plan is not required if the IDSE report includes all information required in the monitoring plan.
† States may allow up to an additional 24 months for compliance with MCLs for systems requiring capital improvements.

EPA United States Environmental Protection Agency

Stage 2 Disinfectants and Disinfection Byproducts Rule: A Quick Reference Guide For Schedule 3 Systems

Overview of the Rule

Title	Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) 71 FR 388, January 4, 2006, Vol. 71, No. 2
Purpose	To increase public health protection by reducing the potential risk of adverse health effects associated with disinfection byproducts (DBPs) throughout the distribution system. Builds on the Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBPR) by focusing on monitoring for and reducing concentrations of two classes of DBPs - TTHM and HAA5 - in drinking water.
General Description	Stage 2 DBPR requires some systems to complete an Initial Distribution System Evaluation (IDSE) to characterize DBP levels in their distribution systems and identify locations to monitor DBPs for Stage 2 DBPR compliance. The Stage 2 DBPR bases TTHM and HAA5 compliance on a locational running annual average (LRAA) calculated at each monitoring location.
Utilities Covered *	▸ All community water systems (CWSs) and nontransient noncommunity water systems (NTNCWSs) that either add a primary or residual disinfectant other than ultraviolet light, or deliver water that has been treated with a primary or residual disinfectant other than ultraviolet light. ▸ Schedule 3 includes CWSs and NTNCWSs serving 10,000 to 49,999 people OR CWSs and NTNCWSs that are part of a combined distribution system in which the largest system serves 10,000 to 49,999 people.

*** NTNCWSs serving < 10,000 people do not need to complete any of the IDSE options, but must conduct Stage 2 DBPR compliance monitoring.**

Stage 2 DBPR Regulated Contaminants

Regulated Contaminants	MCLG (mg/L)	MCL (mg/L)
Total Trihalomethanes (TTHM)		**0.080 LRAA**
Chloroform	0.07	
Bromodichloromethane	zero	
Dibromochloromethane	0.06	
Bromoform	zero	
Five Haloacetic Acids (HAA5)		**0.060 LRAA**
Monochloroacetic acid	0.07	
Dichloroacetic acid	zero	
Trichloroacetic acid	0.02	
Bromoacetic acid	-	
Dibromoacetic acid	-	

IDSE Requirements**

IDSE Option	Description
Standard Monitoring	Standard monitoring is one year of increased monitoring for TTHM and HAA5 in addition to the data being collected under Stage 1 DBPR. These data will be used with Stage 1 DBPR data to select Stage 2 DBPR TTHM and HAA5 compliance monitoring locations. Any system may conduct standard monitoring to meet the IDSE requirements of the Stage 2 DBPR.
System Specific Study (SSS)	Systems that have extensive TTHM and HAA5 data (including Stage 1 DBPR compliance data) or technical expertise to prepare a hydraulic model may choose to conduct a system specific study to select Stage 2 DBPR compliance monitoring locations.
40/30 Certification †	The term "40/30" refers to a system that during a specific time period has all individual Stage 1 DBPR compliance samples less than or equal to 0.040 mg/L for TTHM and 0.030 mg/L for HAA5 and has no monitoring violations during the same time period. These systems have no IDSE monitoring requirements, but will still need to conduct Stage 2 DBPR compliance monitoring.
Very Small System (VSS) Waiver †	Systems that serve fewer than 500 people and have eligible TTHM and HAA5 data can qualify for a VSS Waiver and would not be required to conduct IDSE monitoring. These systems have no IDSE monitoring requirements, but will still need to conduct Stage 2 DBPR compliance monitoring.
EPA has developed several tools to assist systems with complying with the Stage 2 DBPR IDSE requirements. These materials can be downloaded at www.epa.gov/safewater/disinfection/stage2.	

**** NTNCWSs serving < 10,000 people do not need to complete any of the IDSE options.**
† Systems that are notified by EPA or the state their VSS waiver or 40/30 certification has not been approved will need to complete Standard Monitoring or System Specific Study.

For additional information on the Stage 2 DBPR

Call the Safe Drinking Water Hotline at 1-800-426-4791; visit the EPA web site at www.epa.gov/safewater/disinfection/stage2; or contact your state drinking water representative.

Compliance with Stage 2 DBPR MCLs (Routine Monitoring)

Source Water Type	Population Size Category	Monitoring Frequency [1]	Total Distribution System Monitoring Locations Per Monitoring Period [2]
Subpart H	<500	per year	2
	500-3,300	per quarter	2
	3,301-9,999	per quarter	2
	10,000-49,999	per quarter	4
	50,000-249,999	per quarter	8
	250,000-999,999	per quarter	12
	1,000,000-4,999,999	per quarter	16
	≥5,000,000	per quarter	20
Ground Water	<500	per year	2
	500-9,999	per year	2
	10,000-99,999	per quarter	4
	100,000-499,999	per quarter	6
	≥500,000	per quarter	8

Operational Evaluation

Systems must begin complying with the operational evaluation provision of the Stage 2 DBPR.

[1] All systems must monitor during month of highest DBP concentrations.

[2] Systems on quarterly monitoring must take dual sample sets every 90 days at each monitoring location, except for subpart H systems serving 500-3,300. Systems on annual monitoring and subpart H systems serving 500-3,300 are required to take individual TTHM and HAA5 samples (instead of a dual sample set) at the locations with the highest TTHM and HAA5 concentrations, respectively. If monitoring annually, only one location with a dual sample set per monitoring period is needed if highest TTHM and HAA5 concentrations occur at the same location, and month.

Critical Deadlines and Requirements

For Drinking Water Systems (Schedule 3)

January 4, 2006	Systems serving fewer than 500 people that have TTHM and HAA5 compliance data qualify for a VSS Waiver from conducting an IDSE, unless informed otherwise by U.S. EPA or state primacy agency.
October 1, 2007	Systems that do not receive a VSS Waiver must submit to the U.S EPA or state primacy agency either a: ▸ Standard monitoring plan, ▸ System specific study plan, or ▸ 40/30 certification.
October 1, 2008	Systems conducting standard monitoring or SSS begin collecting samples in accordance with their approved plan.
April 1, 2009	Consecutive systems must begin monitoring for chlorine or chloramines as specified under the Stage 1 DBPR.
September 30, 2009	No later than this date, systems conducting standard monitoring or a SSS complete their monitoring or study.
January 1, 2010	No later than this date, systems conducting standard monitoring or a SSS must submit their IDSE report.
October 1, 2013	No later than this date, systems must: ▸ Complete their Stage 2 DBPR Compliance Monitoring Plan (Systems serving more than 3,300 people must submit their Monitoring Plan to the state.)* ▸ Begin complying with monitoring requirements of the Stage 2 DBPR.†
July 2014	Systems must begin complying with rule requirements to determine compliance with the operational evaluation levels for TTHMs and HAA5s.

For States

July - December 2006	States are encouraged to inform systems serving fewer than 500 people and do not qualify for a VSS Waiver from the IDSE requirements should begin complying with standard monitoring requirements.
September 30, 2008	States must approve the system's standard monitoring plan, 40/30 certification, or system specific study plan or notify the system that the state has not completed its review.
October 4, 2007	States are encouraged to submit final primacy applications or extension requests to EPA.
January 4, 2008	Final primacy applications must be submitted to EPA, unless granted an extension.
September 30, 2010	States must approve the system's IDSE report or notify the system that the state has not completed its review of the IDSE report.
January 4, 2010	Final primacy revision applications from states with approved 2-year extensions agreements must be submitted to EPA.

* A compliance monitoring plan is not required if the IDSE report includes all information required in a Stage 2 DBPR compliance monitoring plan.
† States may allow up to an additional 24 months for compliance with MCLs for systems requiring capital improvements.

EPA United States Environmental Protection Agency

Stage 2 Disinfectants and Disinfection Byproducts Rule: A Quick Reference Guide For Schedule 4 Systems

Overview of the Rule

Title	Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) 71 FR 388, January 4, 2006, Vol. 71, No. 2
Purpose	To increase public health protection by reducing the potential risk of adverse health effects associated with disinfection byproducts (DBPs) throughout the distribution system. Builds on the Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBPR) by focusing on monitoring for and reducing concentrations of two classes of DBPs - TTHM and HAA5 - in drinking water.
General Description	Stage 2 DBPR requires some systems to complete an Initial Distribution System Evaluation (IDSE) to characterize DBP levels in their distribution systems and identify locations to monitor DBPs for Stage 2 DBPR compliance. The Stage 2 DBPR bases TTHM and HAA5 compliance on a locational running annual average (LRAA) calculated at each monitoring location.
Utilities Covered *	▸ All community water systems (CWSs) and nontransient noncommunity water systems (NTNCWSs) that either add a primary or residual disinfectant other than ultraviolet light, or deliver water that has been treated with a primary or residual disinfectant other than ultraviolet light. ▸ Schedule 4 includes CWSs and NTNCWSs serving fewer than 10,000 people and not belonging to a combined distribution system in which any system serves less than 10,000 people.

*** NTNCWSs serving < 10,000 people do not need to complete any of the IDSE options, but must conduct Stage 2 DBPR compliance monitoring.**

Stage 2 DBPR Regulated Contaminants

Regulated Contaminants	MCLG (mg/L)	MCL (mg/L)
Total Trihalomethanes (TTHM)		**0.080 LRAA**
Chloroform	0.07	
Bromodichloromethane	zero	
Dibromochloromethane	0.06	
Bromoform	zero	
Five Haloacetic Acids (HAA5)		**0.060 LRAA**
Monochloroacetic acid	0.07	
Dichloroacetic acid	zero	
Trichloroacetic acid	0.02	
Bromoacetic acid	-	
Dibromoacetic acid	-	

IDSE Requirements**

IDSE Option	Description
Standard Monitoring	Standard monitoring is one year of increased monitoring for TTHM and HAA5 in addition to the data being collected under Stage 1 DBPR. These data will be used with Stage 1 DBPR data to select Stage 2 DBPR TTHM and HAA5 compliance monitoring locations. Any system may conduct standard monitoring to meet the IDSE requirements of the Stage 2 DBPR.
System Specific Study (SSS)	Systems that have extensive TTHM and HAA5 data (including Stage 1 DBPR compliance data) or technical expertise to prepare a hydraulic model may choose to conduct a system specific study to select Stage 2 DBPR compliance monitoring locations.
40/30 Certification †	The term "40/30" refers to a system that during a specific time period has all individual Stage 1 DBPR compliance samples less than or equal to 0.040 mg/L for TTHM and 0.030 mg/L for HAA5 and has no monitoring violations during the same time period. These systems have no IDSE monitoring requirements, but will still need to conduct Stage 2 DBPR compliance monitoring.
Very Small System (VSS) Waiver †	Systems that serve fewer than 500 people and have eligible TTHM and HAA5 data can qualify for a VSS Waiver and would not be required to conduct IDSE monitoring. These systems have no IDSE monitoring requirements, but will still need to conduct Stage 2 DBPR compliance monitoring.
EPA has developed several tools to assist systems with complying with the Stage 2 DBPR IDSE requirements. These materials can be downloaded at www.epa.gov/safewater/disinfection/stage2.	

**** NTNCWSs serving < 10,000 people do not need to complete any of the IDSE options.**
† Systems that are notified by EPA or the state their VSS waiver or 40/30 certification has not been approved will need to complete Standard Monitoring or System Specific Study.

For additional information on the Stage 2 DBPR

Call the Safe Drinking Water Hotline at 1-800-426-4791; visit the EPA web site at www.epa.gov/safewater/disinfection/stage2; or contact your state drinking water representative.

Compliance with Stage 2 DBPR MCLs (Routine Monitoring)

Source Water Type	Population Size Category	Monitoring Frequency [1]	Total Distribution System Monitoring Locations Per Monitoring Period [2]
Subpart H	<500	per year	2
	500-3,300	per quarter	2
	3,301-9,999	per quarter	2
	10,000-49,999		4
	50,000-249,999		8
	250,000-999,999		12
	1,000,000-4,999,999		16
	≥5,000,000		20
Ground Water	<500	per year	2
	500-9,999		2
	10,000-99,999	per quarter	4
	100,000-499,999		6
	≥500,000		8

Operational Evaluation

Systems must begin complying with the operational evaluation provision of the Stage 2 DBPR.

[1] All systems must monitor during month of highest DBP concentrations.

[2] Systems on quarterly monitoring must take dual sample sets every 90 days at each monitoring location, except for subpart H systems serving 500-3,300. Systems on annual monitoring and subpart H systems serving 500-3,300 are required to take individual TTHM and HAA5 samples (instead of a dual sample set) at the locations with the highest TTHM and HAA5 concentrations, respectively. If monitoring annually, only one location with a dual sample set per monitoring period is needed if highest TTHM and HAA5 concentrations occur at the same location, and month.

Critical Deadlines and Requirements

For Drinking Water Systems (Schedule 4)

January 4, 2006	Systems serving fewer than 500 people that have TTHM and HAA5 compliance data qualify for a VSS Waiver from conducting an IDSE, unless informed otherwise by U.S. EPA or state primacy agency.
April 1, 2008	Systems that do not receive a VSS Waiver must submit to the U.S EPA or state primacy agency either a: ▸ Standard monitoring plan, ▸ System specific study plan, or ▸ 40/30 certification.
April 1, 2009	Systems conducting standard monitoring or SSS begin collecting samples in accordance with their approved plan.
April 1, 2009	Consecutive systems must begin monitoring for chlorine or chloramines as specified under the Stage 1 DBPR.
March 31, 2010	No later than this date, systems conducting standard monitoring or a SSS complete their monitoring or study.
July 1, 2010	No later than this date, systems conducting standard monitoring or a SSS must submit their IDSE report.
October 1, 2013	No later than this date, systems must: ▸ Complete their Stage 2 DBPR Compliance Monitoring Plan (Systems serving more than 3,300 people must submit their Monitoring Plan to the state.)* ▸ Begin complying with monitoring requirements of the Stage 2 DBPR.†
July 2014††	Systems must begin complying with rule requirements to determine compliance with the operational evaluation levels for TTHMs and HAA5s.

For States

July - December 2006	States are encouraged to inform systems serving fewer than 500 people and do not qualify for a VSS Waiver from the IDSE requirements should begin complying with standard monitoring requirements.
March 31, 2009	States must approve the system's standard monitoring plan, 40/30 certification, or system specific study plan or notify the system that the state has not completed its review.
October 4, 2007	States are encouraged to submit final primacy applications or extension requests to EPA.
January 4, 2008	Final primacy applications must be submitted to EPA, unless granted an extension.
September 30, 2010	States must approve the system's IDSE report or notify the system that the state has not completed its review of the IDSE report.
January 4, 2010	Final primacy revision applications from states with approved 2-year extensions agreements must be submitted to EPA.

* A compliance monitoring plan is not required if the IDSE report includes all information required in a Stage 2 DBPR compliance monitoring plan.
† States may allow up to an additional 24 months for compliance with MCLs for systems requiring capital improvements. System not conducting *Cryptosporidium* monitoring under 141.701(a)(4) must begin Stage 2 DBPR Monitoring by this date. Systems conducting *Cryptosporidium* monitoring under 141.701(a)(4) or 141.701(a)(6) must begin Stage 2 DBPR Monitoring by October 1, 2014.
†† System not conducting *Cryptosporidium* monitoring under 141.701(a)(4) must comply by this date. Systems conducting *Cryptosporidium* monitoring under 141.701(a)(4) or 141.701(a)(6) must begin complying by July 2015.

Appendix D

Flowcharts

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Stage 2 DBPR Flowcharts

Chart 1 Stage 2 DBPR IDSE Requirements

Charts for Surface Water Systems

Chart 2 Stage 2 DBPR Compliance for Surface Water Systems serving 10,000 or more people

Chart 3 Stage 2 DBPR Compliance for Surface Water Systems serving 500 to 9,999 people

Chart 4 Stage 2 DBPR Compliance for Surface Water Systems serving fewer than 500 people

Charts for Ground Water Systems

Chart 5 Stage 2 DBPR Compliance for Ground Water Systems serving 10,000 or more people

Chart 6 Stage 2 DBPR Compliance for Ground Water Systems serving 500 to 9,999 people

Chart 7 Stage 2 DBPR Compliance for Ground Water Systems serving fewer than 500 people

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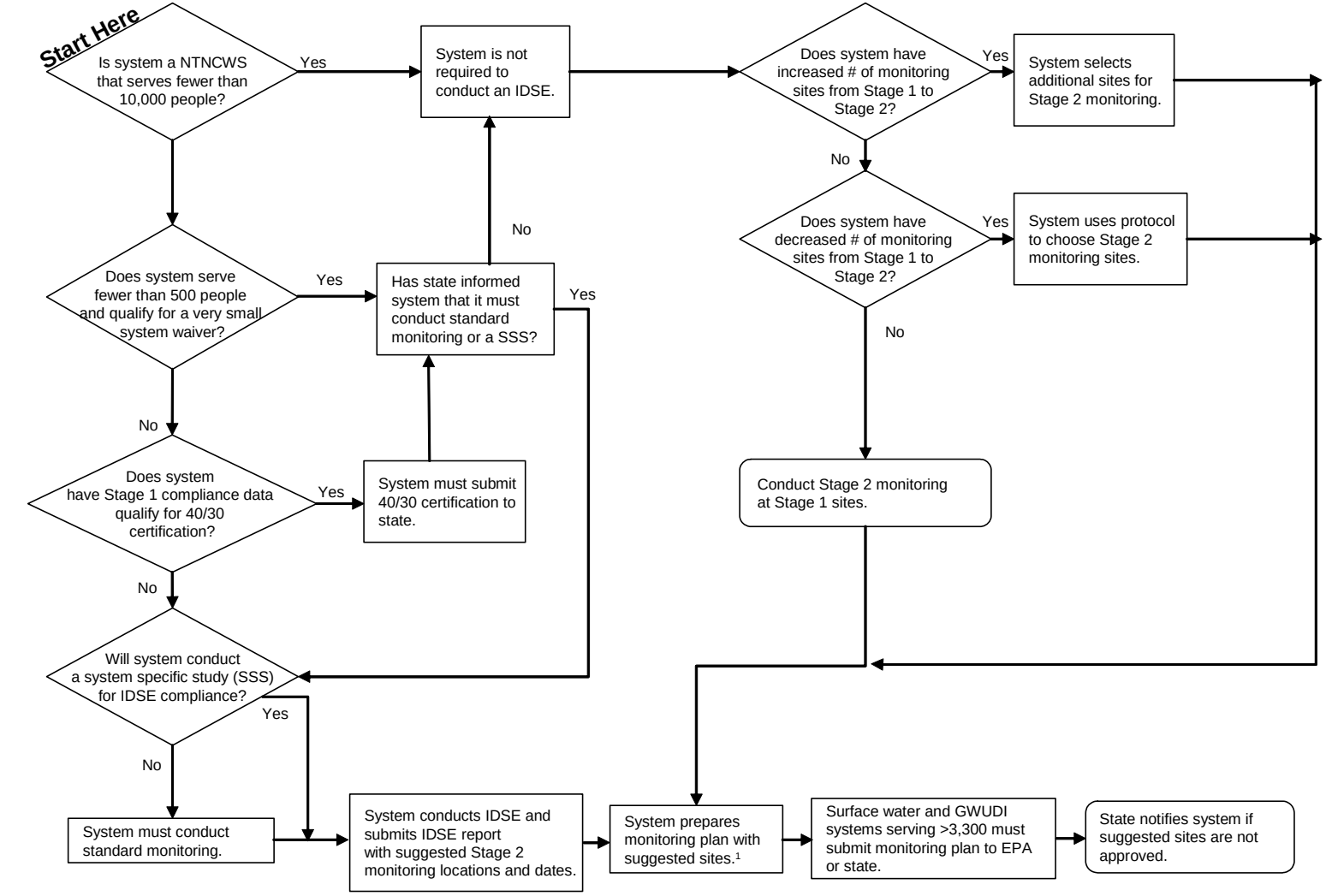
CHART 1: STAGE 2 DBPR IDSE REQUIREMENTS

All CWSs and NTNCWSs that add a disinfectant other than UV to their water or deliver such water

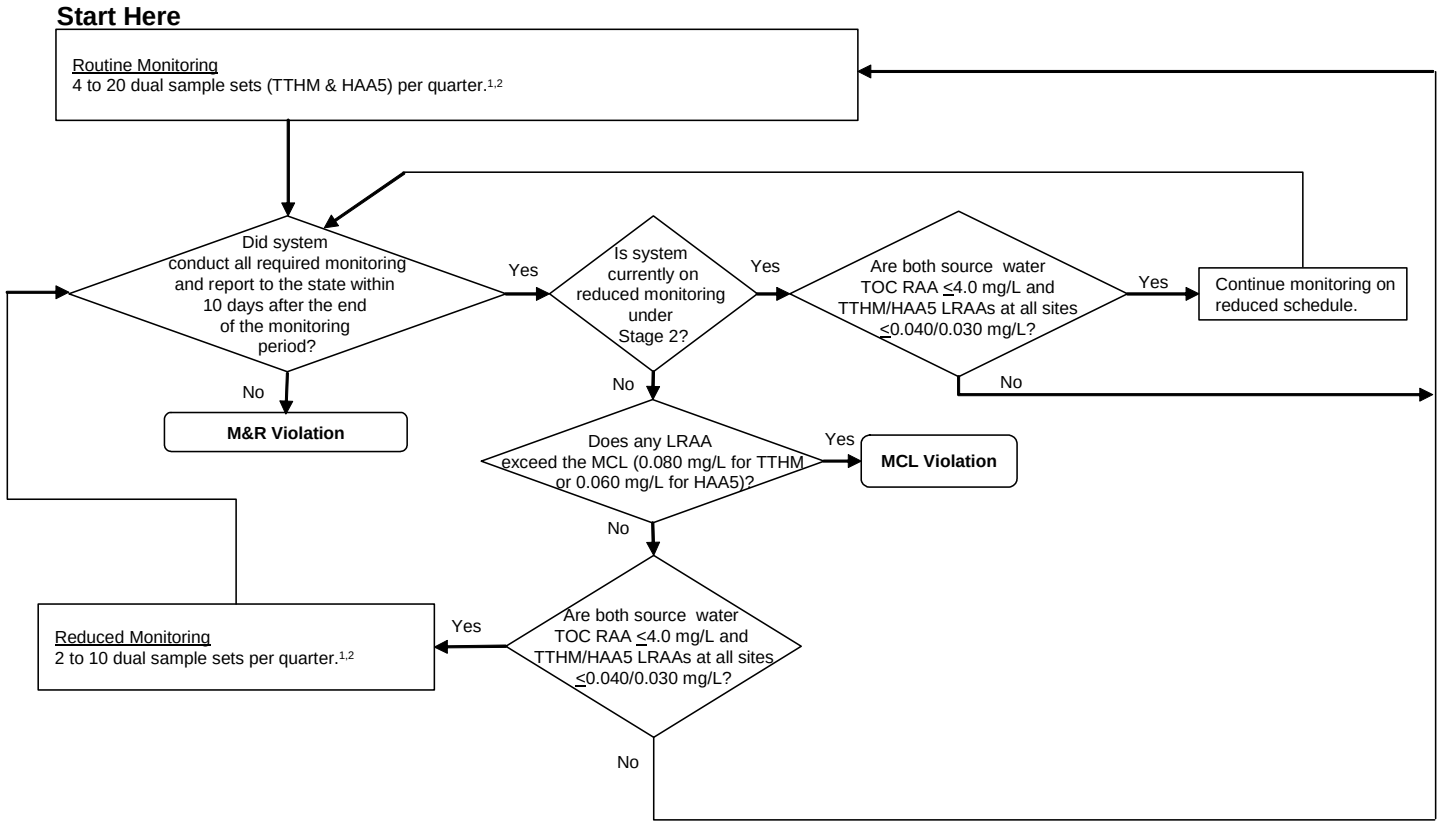
Note: Consecutive or wholesale systems that are part of a combined distribution system must monitor on the same schedule as the largest system in the combined distribution system.



[1] Unless information required for monitoring plan is included in IDSE report

CHART 2: STAGE 2 DBPR COMPLIANCE
Surface Water Systems serving 10,000 or more people

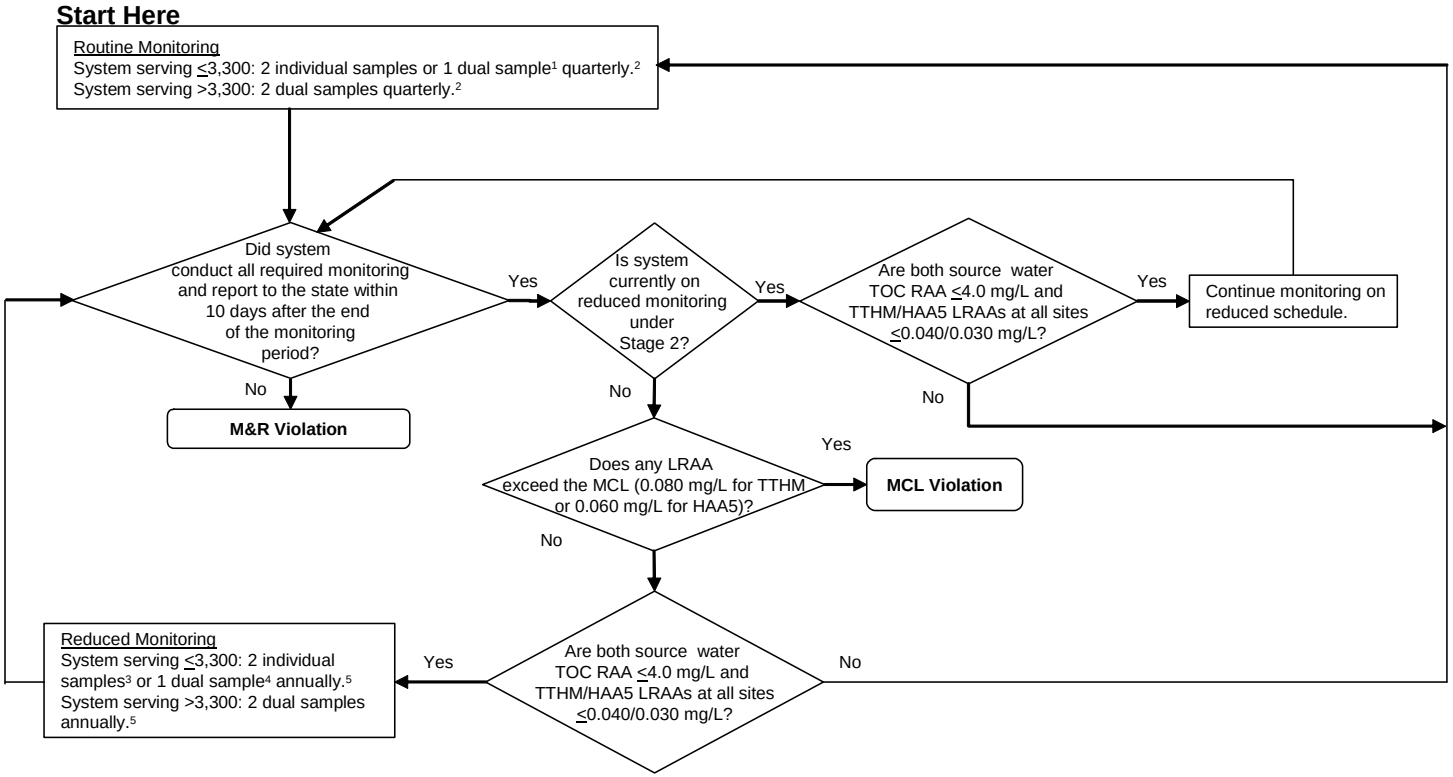
Note: Consecutive or wholesale systems that are part of a combined distribution system must monitor on the same schedule as the largest system in the combined distribution system.



[1] Number of dual samples dependent on population served.
[2] One quarterly set must be taken during the peak month of historical DBP concentrations

CHART 3: STAGE 2 DBPR COMPLIANCE
Surface Water Systems serving 500- 9,999 people

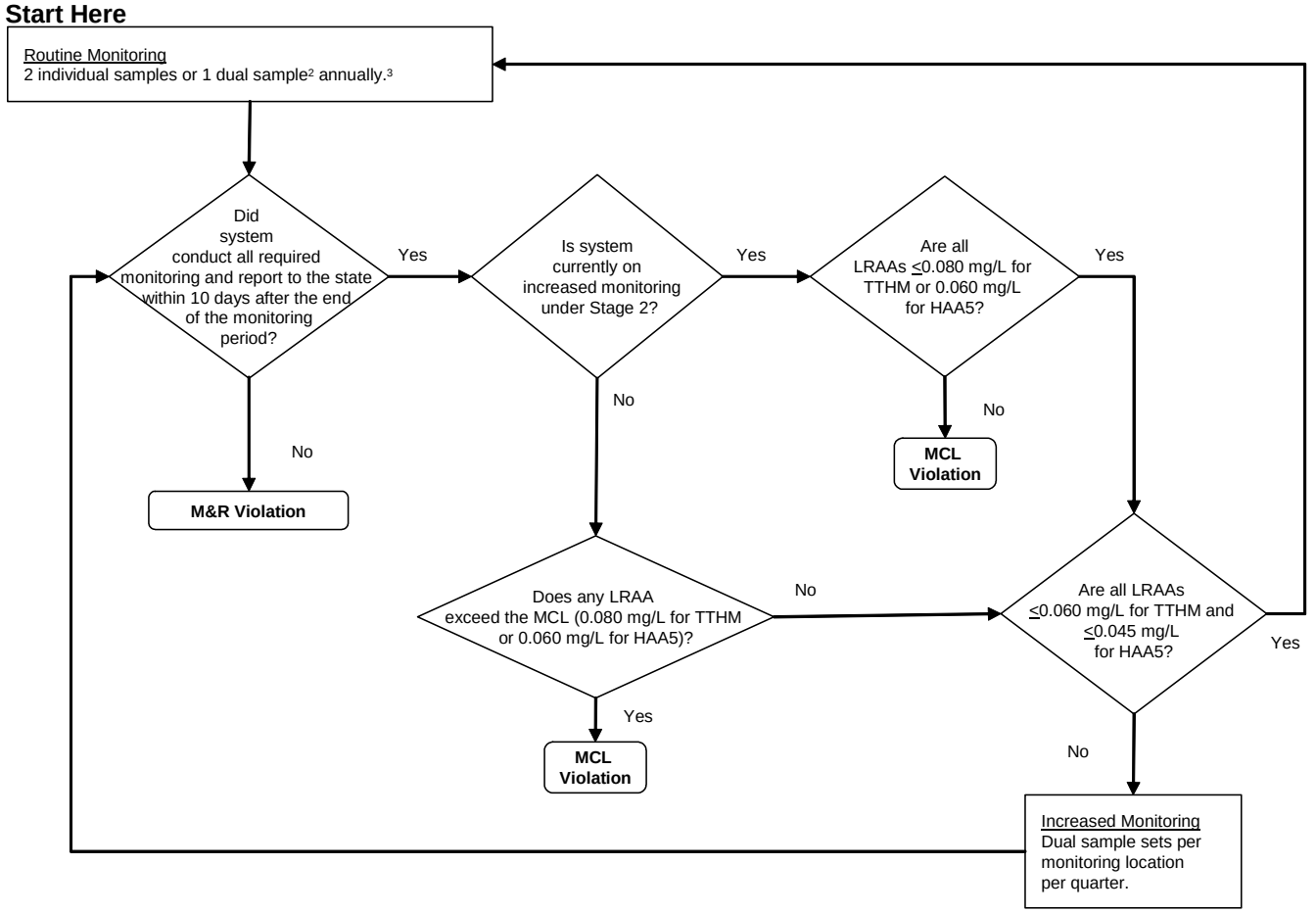
Note: Consecutive or wholesale systems that are part of a combined distribution system must monitor on the same schedule as the largest system in the combined distribution system.



[1] If highest TTHM LRAA and highest HAA5 LRAA occur at the same location.
[2] During the month of highest DBP concentration.
[3] One sample at the location and during the quarter with the highest TTHM single measurement, and one sample at the location and during the quarter with the highest HAA5 single measurement.
[4] If highest TTHM LRAA and highest HAA5 LRAA occur at the same location and during same quarter.
[5] During quarter with highest DBP concentration.

CHART 4: STAGE 2 DBPR COMPLIANCE
Surface Water Systems fewer than 500 people[1]

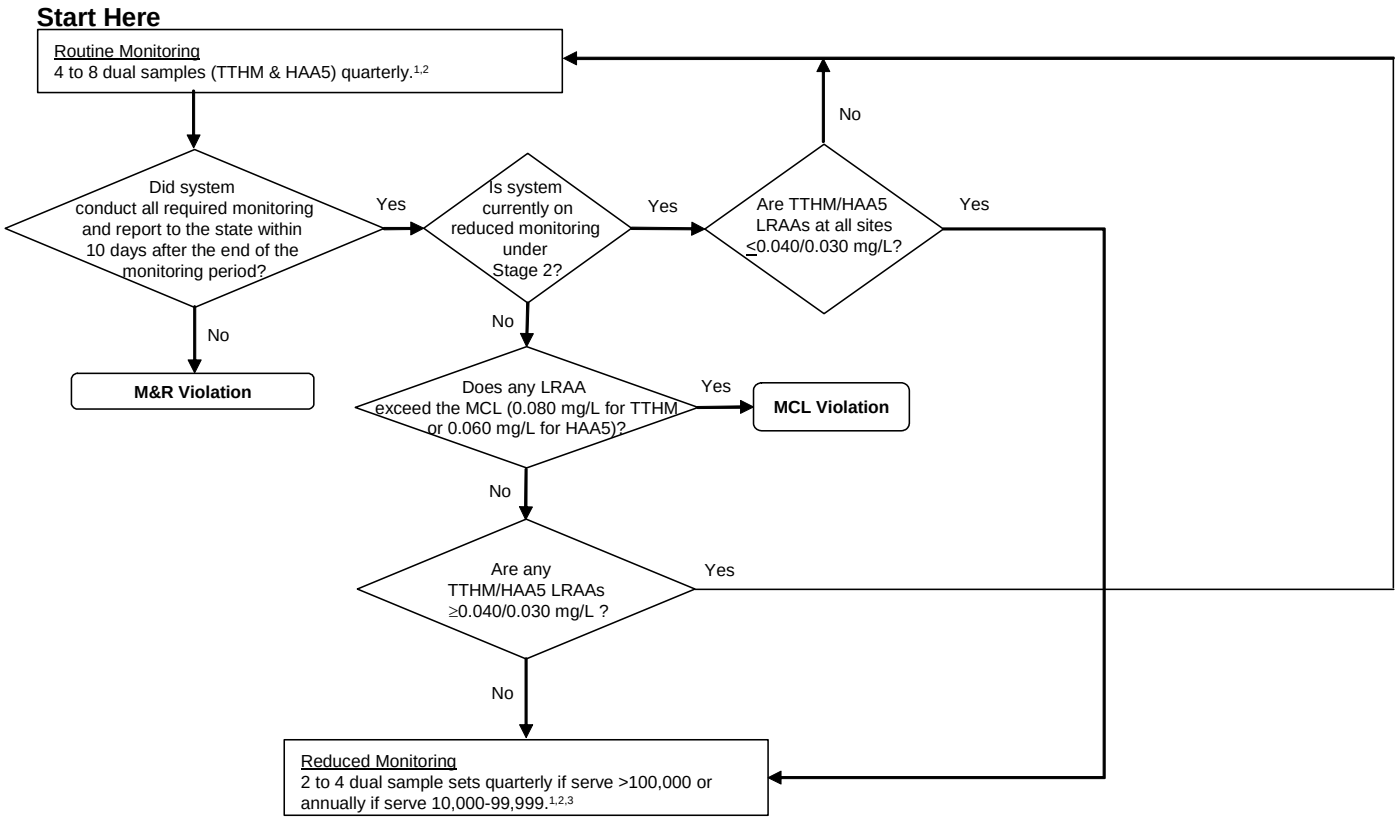
Note: Consecutive or wholesale systems that are part of a combined distribution system must monitor on the same schedule as the largest system in the combined distribution system.



[1] Systems cannot reduce monitoring.
[2] If highest TTHM LRAA and highest HAA5 LRAA occur at the same location.
[3] During the month of highest DBP concentration.

CHART 5: STAGE 2 DBPR COMPLIANCE
Ground water systems serving 10,000 or more people

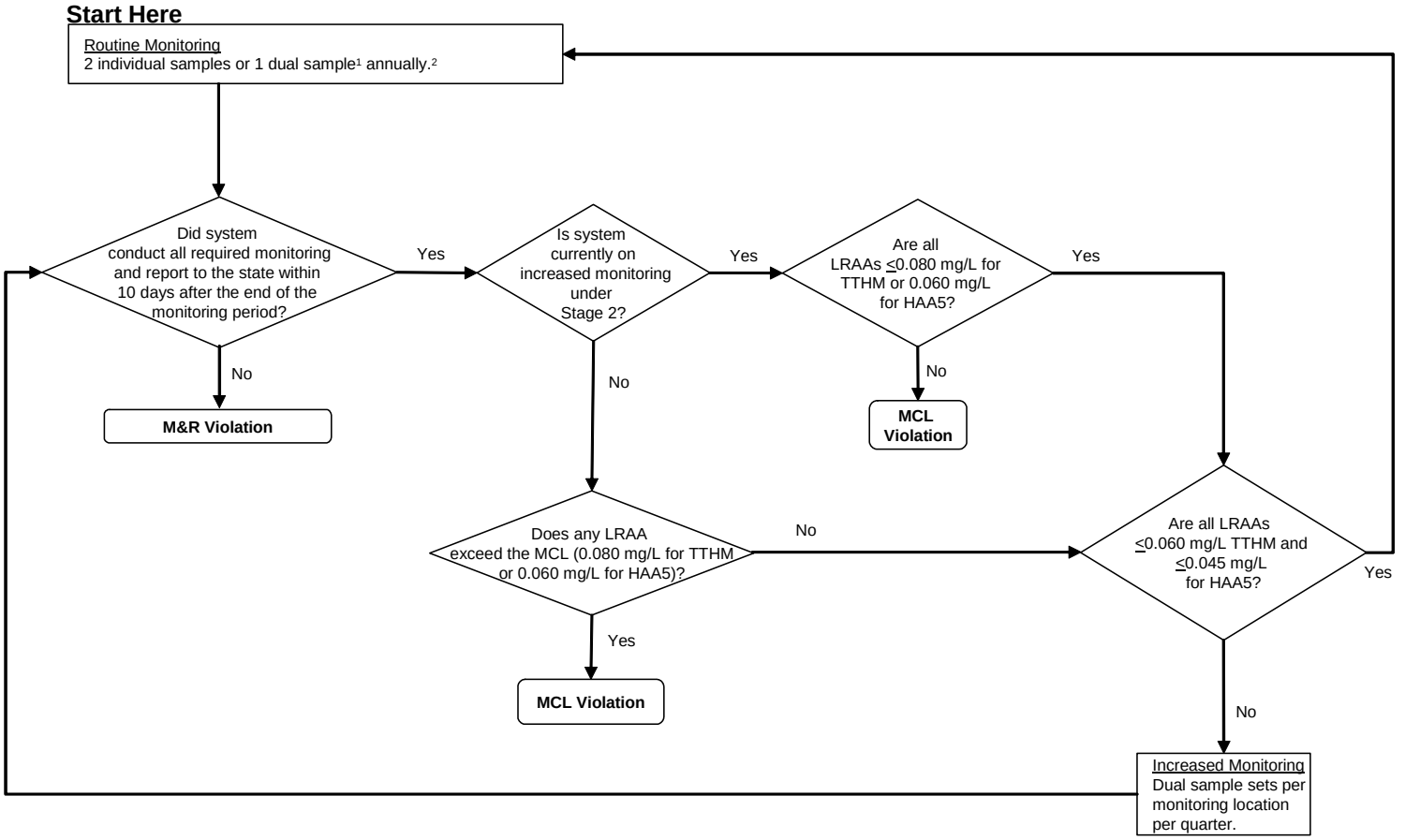
Note: Consecutive or wholesale systems that are part of a combined distribution system must monitor on the same schedule as the largest system in the combined distribution system.



[1] Number of dual samples depends on population served.
[2] One set must be taken during the peak historical month for DBP concentrations.
[3] For systems serving 10,000-99,999, one sample must be taken at the location and during the quarter with the highest TTHM single measurement, and one sample must be taken at the location and during the quarter with the highest HAA5 single measurement.

CHART 6: STAGE 2 DBPR COMPLIANCE
Ground water systems serving 500 - 9,999 people

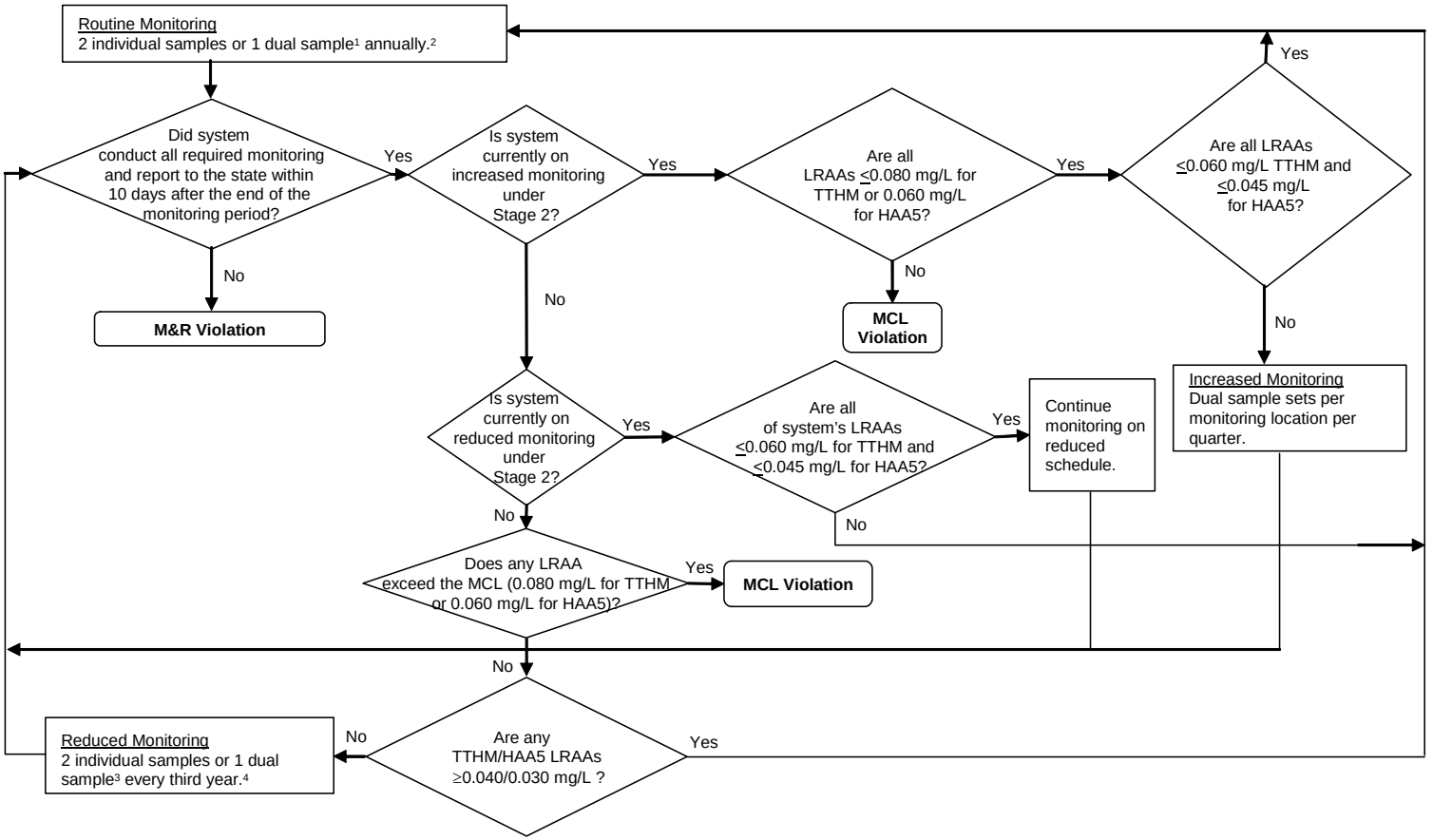
Note: Consecutive or wholesale systems that are part of a combined distribution system must monitor on the same schedule as the largest system in the combined distribution system.



[1] If the highest TTHM and HAA5 LRAA occur at the same location.
[2] During the quarter of highest DBP concentration.

CHART 7: STAGE 2 DBPR COMPLIANCE
Ground water systems serving fewer than 500

Note: Consecutive or wholesale systems that are part of a combined distribution system must monitor on the same schedule as the largest system in the combined distribution system.



[1] If the highest TTHM and HAA5 LRAA occur at the same location.
[2] During the quarter with highest DBP concentration.
[3] If the highest TTHM and HAA5 LRAA occur at the same location and quarter.
[4] During the year with highest DBP concentration.

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Appendix E

IDSE Forms

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IDSE Forms

Systems can use the following forms to help them prepare plans and reports for their IDSE. These forms are from EPA's *Initial Distribution System Evaluation (IDSE) Guidance Manual* (EPA 815-B-06-002).

Monitoring Plan Forms

Form 2: Existing Monitoring Results SSS Plan

Form 4: Modeling Study Plan

Form 6: Standard Monitoring Plan

IDSE Report Forms

Form 3: Existing Monitoring Results SSS IDSE Report

Form 5: IDSE Report for a Modeling SSS

Form 7: IDSE Report for Standard Monitoring

Forms 2 and 4 will assist systems preparing a System Specific Study (SSS) Plan, and Form 6 will help systems preparing a Standard Monitoring Plan. Systems conducting standard monitoring or a SSS must also submit an IDSE Report. For assistance with their IDSE Reports, systems completing a SSS should use Form 3 or 5 and systems conducting standard monitoring should use Form 7.

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Form 2: Existing Monitoring Results SSS Plan

I. GENERAL INFORMATION

A. PWS Information*

PWSID: _____

PWS Name: _____

PWS Address: _____

City: _____ State: _____ Zip: _____

Population Served: _____

B. Date Submitted* _____

System Type:	Source Water Type:	Buying / Selling Relationships:
☐ CWS	☐ Subpart H	☐ Consecutive System
☐ NTNCWS	☐ Ground	☐ Wholesale System
		☐ Neither

C. PWS Operations

Residual Disinfectant Type: ☐ Chlorine ☐ Chloramines ☐ Other_____

Number of Disinfected Sources: ____Surface____GWUDI____Ground____Purchased

D. Contact Person*

Name: _____

Title: _____

Phone #: _____ Fax #: _____

E-mail: _____

II. SSS REQUIREMENTS*

A. Minimum Number of Monitoring Locations _____

B. Minimum Number of Required Samples

_____ TTHM _____ HAA5

C. IDSE Schedule

☐ Schedule 1 ☐ Schedule 2 ☐ Schedule 3 ☐ Schedule 4

Form 2: Existing Monitoring Results SSS Plan

III. PEAK HISTORICAL MONTH

A. Peak Historical Month* _____

B. If Multiple Sources, Source Used to Determine Peak Historical Month (write AN/A@ if only one source in your system)

_____

C. Peak Historical Month Based On (check as many as needed)

☐ High TTHM ☐ High HAA5 ☐ Warmest Water temperature

If you used other information to select your peak historical month, explain here (*attach additional sheets if needed*)

_____

_____

_____

IV. PREVIOUSLY COLLECTED MONITORING RESULTS*

A. Where were your TTHM and HAA5 samples analyzed?

☐ In-House

Is your in-house laboratory certified? ☐ Yes ☐ No

☐ Certified Laboratory

Name of certified laboratory: _____

B. What method(s) was used to analyze your TTHM and HAA5 samples?

TTHM	HAA5
☐ EPA 502.2	☐ EPA 552.1
☐ EPA 524.3	☐ EPA 552.2
☐ EPA 551.1	☐ EPA 552.3
	☐ SM 6251 B

Form 2: Existing Monitoring Results SSS Plan

IV. PREVIOUSLY COLLECTED MONITORING RESULTS (continued)*

C. TTHM Results

Site ID[1]	12-month period	Data Qualifies (yes/no)	Data Type	TTHM (mg/L)						LRAA
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							

[1] *Verify that site IDs match the site IDs on your distribution system schematic.*

Attach additional sheets as needed for previously collected compliance and operational monitoring results.

Form 2: Existing Monitoring Results SSS Plan

IV. PREVIOUSLY COLLECTED MONITORING RESULTS (continued)*

C. TTHM Results

Site ID[1]	12-month period	Data Qualifies (yes/no)	Data Type	TTHM (mg/L)						LRAA
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							

[1] *Verify that site IDs match the site IDs on your distribution system schematic.*

Attach additional sheets as needed for previously collected compliance and operational monitoring results.

Form 2: Existing Monitoring Results SSS Plan

IV. PREVIOUSLY COLLECTED MONITORING RESULTS (continued)*

D. HAA5 Results

Site ID[1]	12-month period	Data Qualifies (yes/no)	Data Type	HAA5 (mg/L)						LRAA
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							

[1] *Verify that site IDs match the site IDs on your distribution system schematic.*

Attach additional sheets as needed for previously collected compliance and operational monitoring results.

Form 2: Existing Monitoring Results SSS Plan

IV. PREVIOUSLY COLLECTED MONITORING RESULTS (continued)*

D. HAA5 Results

Site ID[1]	12-month period	Data Qualifies (yes/no)	Data Type	HAA5 (mg/L)						LRAA
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							

[1] *Verify that site IDs match the site IDs on your distribution system schematic.*

Attach additional sheets as needed for previously collected compliance and operational monitoring results.

Form 2: Existing Monitoring Results SSS Plan

V. CERTIFICATION OF DATA*

I hereby certify that:

- $ The reported monitoring results include all compliance and non-compliance results generated during the time period beginning with the first reported result and ending with the most recent Stage 1 DBPR results.
- $ The samples are representative of the entire distribution system.
- $ Treatment and the distribution system have not changed significantly since the samples were collected.

Signature: _____

Date: _____

VI. PROPOSED SSS MONITORING SCHEDULE*

Skip if you are submitting your IDSE Report at the same time as your plan

SSS Site ID (from map) [1]	Projected Sampling Date (date or week) [2]					
	period 1	period 2	period 3	period 4	period 5	period 6

[1] Verify that site IDs match IDs on your distribution system schematic (See Section VII of this form). Attach additional copies of this sheet if necessary.

[2] period = monitoring period. Can list exact date or week (e.g., week of 7/9/07)

Form 2: Existing Monitoring Results SSS Plan

VII. DISTRIBUTION SYSTEM SCHEMATIC*

ATTACH a schematic of your distribution system.

Distribution system schematics are not confidential and should not contain information that poses a ***security risk*** to your system. EPA recommends that you use one of two options:

Option 1: Distribution system schematic with no landmarks or addresses indicated. Show locations of sources, entry points, storage facilities, operational monitoring locations, and Stage 1 compliance monitoring locations (required). Also include pressure zone boundaries and locations of pump stations. Provide map scale.

Option 2: City map without locations of pipes indicated. Show locations of sources, entry points, storage facilities, operational monitoring locations, and Stage 1 compliance monitoring locations (required). Also include boundaries of the distribution system, pressure zone boundaries and locations of pump stations. Provide map scale.

VIII. ATTACHMENTS

☐ Additional sheets for explaining how you selected the peak historical month (Section III).

☐ Additional sheets for previously collected monitoring results (Section IV).

☐ Additional sheets for proposed monitoring dates (Section VI).

☐ Distribution system schematic* (Section VII).

Total Number of Pages in Your Plan: _____

Note: Fields with an asterisk (*) are required by the Stage 2 DBPR.

Form 3: IDSE Report for an Existing Monitoring Results SSS

I. GENERAL INFORMATION

(*Skip this section if you are submitting the plan and report at the same time*)

A. PWS Information*

PWSID: _____

PWS Name: _____

PWS Address: _____

City: _____ State: _____ Zip: _____

Population Served: _____

B. Date Submitted* _____

System Type:	Source Water Type:	Buying / Selling Relationships:
☐ CWS	☐ Subpart H	☐ Consecutive System
☐ NTNCWS	☐ Ground	☐ Wholesale System
		☐ Neither

C. PWS Operations

Residual Disinfectant Type: ☐ Chlorine ☐ Chloramines ☐ Other _____

Number of Disinfected Sources: ___Surface ___GWUDI ___Ground ___Purchased

D. Contact Person*

Name: _____

Title: _____

Phone #: _____ Fax #: _____

E-mail: _____

II. STAGE 2 DBPR REQUIREMENTS*

A. Number of Required Stage 2 DBPR Compliance Monitoring Sites _____ TOTAL

_____ Highest TTHM _____ Stage 1 DBPR _____ Highest HAA5

Form 3: IDSE Report for an Existing Monitoring Results SSS

II. STAGE 2 DBPR REQUIREMENTS (continued)*

B. IDSE Schedule

☐ Schedule 1

☐ Schedule 2

☐ Schedule 3

☐ Schedule 4

C. Required Stage 2 DBPR Compliance Monitoring Frequency

☐ During peak historical month (1 monitoring period)

☐ Every 90 days (4 monitoring periods)

III. ADDITIONAL SSS AND STAGE 1 COMPLIANCE MONITORING RESULTS*
(Skip this section if you are submitting the plan and report at the same time)

A. Where were your TTHM and HAA5 samples analyzed?

☐ In-House

Is your in-house laboratory certified? ☐ Yes ☐ No

☐ Certified Laboratory

Name of certified laboratory: _____

B. What method(s) was used to analyze your TTHM and HAA5 samples?

TTHM	HAA5
☐ EPA 502.2	☐ EPA 552.1
☐ EPA 524.3	☐ EPA 552.2
☐ EPA 551.1	☐ EPA 552.3
	☐ SM 6251 B

Form 3: IDSE Report for an Existing Monitoring Results SSS

III. ADDITIONAL SSS AND STAGE 1 DBPR MONITORING RESULTS (Continued)*

C. TTHM Results

Site ID[1]	12-month period	Data Qualifies (yes/no)	Data Type	TTHM (mg/L)						LRAA
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							

[1] *Verify that site IDs match the site IDs in your SSS Plan.*

Attach additional sheets as needed for SSS and Stage 1 DBPR results.

Form 3: IDSE Report for an Existing Monitoring Results SSS

III. ADDITIONAL SSS AND STAGE 1 DBPR MONITORING RESULTS (Continued)*

D. HAA5 Results

Site ID[1]	12-month period	Data Qualifies (yes/no)	Data Type	HAA5 (mg/L)						LRAA
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							

[1] *Verify that site IDs match the site IDs in your SSS Plan.*

Attach additional sheets as needed for SSS and Stage 1 DBPR results.

Form 3: IDSE Report for an Existing Monitoring Results SSS

IV. JUSTIFICATION OF STAGE 2 DBPR COMPLIANCE MONITORING SITES*

Stage 2 Compliance Monitoring Site ID	Site Type	Justification
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	

Attach additional copies of this sheet if you need more room.

Form 3: IDSE Report for an Existing Monitoring Results SSS

V. PEAK HISTORICAL MONTH

A. **Peak Historical Month*_____**

B. **Is Your Peak Historical Month the Same as in Your SSS Plan?**

☐ Yes ☐ No

If no, explain how you selected your new peak historical month *(attach additional sheets if needed*):

_____

_____

_____

_____

_____

VI. PROPOSED STAGE 2 DBPR COMPLIANCE MONITORING SCHEDULE*

Stage 2 Compliance Monitoring Site ID	Projected Sampling Date (date or week)[1]			
	period 1	period 2	period 3	period 4

[1] *period = monitoring period. Complete for the number of monitoring periods from Section II.C.*

Attach additional copies of this sheet if you need more room.

Form 3: IDSE Report for an Existing Monitoring Results SSS

VII. DISTRIBUTION SYSTEM SCHEMATIC*
(Skip this section if you are submitting the plan and report at the same time)

ATTACH a schematic of your distribution system if it has changed since you submitted your Existing Monitoring Results SSS Plan (Form 2).

VIII. ATTACHMENTS

☐ Additional sheets for Additional SSS Monitoring Results (Section III).

☐ Additional sheets for Stage 2 DBPR Monitoring Sites (Section IV). **REQUIRED if you are a subpart H system serving more than 249,999 people**.

☐ Additional sheets for explaining how you selected the peak historical month (Section V).

☐ Additional sheets for proposed compliance monitoring dates (Section VI). **REQUIRED if you are a subpart H system serving more than 249,999 people**.

☐ Explanation of deviations from approved study plan.

☐ Distribution system schematic* (Section VII). **REQUIRED if it has changed from your approved SSS plan**.

☐ Compliance calculation procedures (for Stage 2 Compliance Monitoring Plan).

Total Number of Pages in Your Report: _____

Note: Fields with an asterisk(*) are required by the Stage 2 DBPR.

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Form 4: Modeling Study Plan

I. GENERAL INFORMATION

A. PWS Information*

B. Date Submitted* _____

PWSID: _____

PWS Name: _____

PWS Address: _____

City: _____ State: _____ Zip: _____

Population Served: _____

System Type:	Source Water Type:	Buying / Selling Relationships:
☐ CWS	☐ Subpart H	☐ Consecutive System
☐ NTNCWS	☐ Ground	☐ Wholesale System
		☐ Neither

C. PWS Operations

Residual Disinfectant Type: ☐ Chlorine ☐ Chloramines ☐ Other:_____

Number of Disinfected Sources: ___ Surface ___GWUDI ____ Ground ___ Purchased

Name: _____

Title: _____

Phone #: _____ Fax #: _____

E-mail: _____

II. IDSE REQUIREMENTS*

A. SSS Monitoring	B. Schedule	C. SSS Monitoring Frequency
Number of Samples per Monitoring Period _____	☐ Schedule 1	☐ During peak month of TTHM formation (1 monitoring period)
Number of Monitoring Periods _____	☐ Schedule 2	
	☐ Schedule 3	
Total _____	☐ Schedule 4	☐ Additional (describe) _____

Form 4: Modeling Study Plan

III. MODEL DESCRIPTION

A. Answer Yes or No to the following questions*
(provide documentation in attached sheets)

1.	Is your model an Extended Period Simulation model?	Y / N
2.	Does your model meet the minimum requirements described below? Attach tables or spreadsheets to demonstrate that your model meets these requirements.	
	Include 75% of pipe volume	Y / N
	Include 50% of pipe length	Y / N
	Include all pressure zones	Y / N
	Include all pipes 12" and larger	Y / N
	Include all 8" and larger pipes that connect pressure zones, influence zones from different sources, storage facilities, major demand areas, pumps, and control valves, or are known or expected to be significant conveyors of water	Y / N
	Include all 6" and larger pipes that connect remote areas of a distribution system to the main portion of the system	Y / N
	Include all storage facilities with standard operations represented in the model	Y / N
	Include all active pump stations with realistic controls	Y / N
	Include all active control valves	Y / N
3.	Is your model (or will it be) calibrated to simulate actual water levels at all storage facilities and represent the current distribution system configuration during the period of high TTHM formation?	Y / N
4.	If calibration is complete, does the model simulate 24 hour variation in demand and show a consistently repeating 24 hour pattern of residence time?	Y / N

B. Provide a history of your model development and calibration*, including dates
(attach additional sheets if needed)

_____

_____

Form 4: Modeling Study Plan

III. MODEL DESCRIPTION (Continued)

C. How was demand data assigned to the model? *(attach additional sheets if needed)*

1.	What method was used to assign demands throughout the system?	
2.	How did you estimate diurnal demand variation? How did you determine total system demand?	
3.	How many demand categories did you use?	
4.	How did you address large water users?	

D. Describe all calibration activities* If your model is not currently calibrated, describe how calibration will be completed within 12 months of the required plan submission date using the questions 1-8 as guidance *(attach additional sheets if needed).*

1.	When was the model last calibrated?	
2.	What types of data were used in the calibration?	
3.	When was the calibration data collected?	
4.	What field tests have been performed to collect calibration data?	

Form 4: Modeling Study Plan

III. MODEL DESCRIPTION (Continued)

D. (Continued)

5.	How did you determine friction factors (C-factors)?	
6.	Was the calibration completed for the peak month for TTHM formation? If not, was the model performance verified for the peak month for TTHM formation?	
7.	How well do actual tank levels correlate with predicted tank levels during the peak month for TTHM formation? **See Attachments (Section VIII) for additional submission requirements.**	
8.	If you are using a water quality model, what parameters are modeled? How was the model calibrated?	

IV. PEAK MONTH FOR TTHM FORMATION

A. Peak Month For TTHM Formation* _____

B. Justification of Peak Month for TTHM Formation

Describe how your system determined which month is the peak month for TTHM formation (*attach additional sheets if needed*):

_____

_____

_____

_____

_____

_____

Form 4: Modeling Study Plan

V. MODELING INFORMATION *

How was the SSS modeling performed? *(attach additional sheets as needed)*

1.	Was modeling done for the operating conditions during the peak month for TTHM formation?	
2.	How were operational controls represented in the model?	
3.	How was water age simulated during the peak month for TTHM formation (time steps, length of simulation, etc.)? If not yet done, indicate how this will be addressed in the IDSE report.	
4.	What are the average water age results for your distribution system? **See Attachments (Section VIII) for additional submission requirements.**	

VI. PLANNED STAGE 1 DBPR COMPLIANCE MONITORING SCHEDULE*

Stage 1 DBPR Monitoring Site ID (from map) [1]	Projected Sampling Date (date or week) [2]			
	Period 1	Period 2	Period 3	Period 4

[1] Verify that site IDs match IDs on your distribution system schematic (See Section VII of this form). Attach additional copies if you are required to monitor at more than 8 Stage 1 DBPR sites.

[2] period = monitoring period. Complete for the number of periods in which you must conduct Stage 1 DBPR monitoring during IDSE monitoring. Can list exact date or week (e.g., week of 7/9/07).

Form 4: Modeling Study Plan

VII. DISTRIBUTION SYSTEM SCHEMATIC*

ATTACH a schematic of your distribution system.

Distribution system schematics are not confidential and should not contain information that poses a ***security risk*** to your system. EPA recommends that you submit the following:

Distribution system schematic with no landmarks or addresses indicated. Show locations of sources, entry points, storage facilities, locations of completed monitoring, and Stage 1 compliance monitoring locations (required). Also include pressure zone boundaries and locations of pump stations. Provide map scale.

VIII. ATTACHMENTS

- ☐ Distribution System Schematic* (Section VII).
- ☐ Tabular or spreadsheet documentation that your model meets minimum requirements***** (Section III.A).
- ☐ Additional sheets for explaining your model (Section III.B).
- ☐ Graph of predicted tank levels vs. measured tank levels for the storage facility with the highest residence time in each pressure zone* (Section III.D). **Required if calibration is complete.**
- ☐ Time series graph of water age at the longest residence time storage facility in the distribution system showing the predictions for the entire EPS simulation period* (Section V). **Required if calibration is complete.**
- ☐ Additional sheets for explaining how you selected the peak historic month for TTHM formation (Section IV).
- ☐ Model output showing preliminary 24 hour average water age predictions for all nodes throughout the distribution system* (Required for all submissions. If your model is calibrated, this should be your final water age predictions.) (Section V).
- ☐ Additional sheets describing the planned Stage 1 DBPR Compliance Monitoring Schedule (Section VI).

Total Number of Pages in Your Plan _____

Note: All items marked with an asterisk (*) are required by the rule.

Form 5: IDSE Report for a Modeling SSS

I. GENERAL INFORMATION

(Skip this section if you are submitting the plan and report at the same time)

A. PWS Information*

PWSID: _____

PWS Name: _____

PWS Address: _____

City: _____ State: _____ Zip: _____

Population Served: _____

B. Date Submitted* _____

System Type:	Source Water Type:	Buying / Selling Relationships:
☐ CWS	☐ Subpart H	☐ Consecutive System
☐ NTNCWS	☐ Ground	☐ Wholesale System
		☐ Neither

C. PWS Operations

Residual Disinfectant Type: ☐ Chlorine ☐ Chloramines ☐ Other:_____

Number of Disinfected Sources: ___ Surface ___GWUDI ___Ground ___Purchased

D. Contact Person*

Name: _____

Title: _____

Phone Number: ___ Fax:

E-mail: _____

II. SSS AND STAGE 2 DBPR REQUIREMENTS*

A. Number of Required Stage 2 DBPR Compliance Monitoring Sites _____ TOTAL

Highest TTHM: _____ Stage 1 DBPR: _____

Highest HAA5: _____

B. IDSE Schedule

☐ Schedule 1

☐ Schedule 2

☐ Schedule 3

☐ Schedule 4

C. Stage 2 DBPR Compliance Monitoring Frequency

☐ Once during peak historical month

☐ Every 90 days (4 monitoring periods)

D. Number of Required SSS Samples

_____ TOTAL

Form 5: IDSE Report for a Modeling SSS

III. MODELING INFORMATION

(Skip this section if you submitted a modeling study plan with an approved model calibration and your information has not changed, or if you are submitting your plan and report at the same time)

A. How was demand data assigned to the model? (*attach additional sheets if needed*)

1.	What method was used to assign demands throughout the system?	
2.	How did you estimate diurnal demand variation? How did you determine total system demand?	
3.	How many demand categories did you use?	
4.	How did you address large water users?	

B. Describe all calibration activities undertaken* (*attach additional sheets if needed*)

1.	When was the model last calibrated?	
2.	What types of data were used in the calibration?	
3.	When was the calibration data collected?	
4.	What field tests have been performed to collect calibration data?	

Form 5: IDSE Report for a Modeling SSS

III. MODELING INFORMATION (Continued)

5.	How did you determine friction factors (C-factors)?	
6.	Was the calibration completed for the peak month for TTHM formation? If not, was the model performance verified for the peak month for TTHM formation?	
7.	How well do actual tank levels correlate with predicted tank levels during the peak month for TTHM formation? **Submit a graph of predicted tank levels vs. measured tank levels for the storage facility with the highest water age in each pressure zone.***	
8.	If you are using a water quality model, what parameters are modeled? How was the model calibrated?	

Form 5: IDSE Report for a Modeling SSS

III. MODELING INFORMATION (Continued)

C. How was the SSS modeling performed?* (*attach additional sheets as needed*)

1.	Was modeling done for the operating conditions during the peak month for TTHM formation*?	
2.	How were operational controls represented in the model?	
3.	How was water age simulated during the peak month for TTHM formation (time steps, length of simulation, etc.)?	
4.	What are the average water age results for your distribution system? **Submit final model output showing 24-hour average residence time throughout the distribution system*.** **Submit graph of water age at the longest residence time storage facility in the distribution system showing the predictions for the entire EPS simulation period*.**	

Form 5: IDSE Report for a Modeling SSS

IV. SSS MONITORING LOCATION SELECTION

How were the SSS monitoring locations selected? *(attach additional sheets as needed)*

1.	What model results were used as the basis for selection?	
2.	What criteria were used in selecting average residence time, high TTHM, and high HAA5 sites?	
3.	What additional data was used in the analysis, and how was it used?	
4.	How did you look at practical considerations like accessibility of sampling locations?	
5.	How did you verify that your selected sampling locations corresponded to the selected node in your model?	

Form 5: IDSE Report for a Modeling SSS

V. SSS AND STAGE 1 DBPR COMPLIANCE MONITORING RESULTS*

A. TTHM Results

Site ID & Category	Data Type	TTHM (mg/L)				LRAA
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					

Attach additional sheets as needed for SSS and Stage 1 DBPR results.

Form 5: IDSE Report for a Modeling SSS

V. SSS AND STAGE 1 DBPR COMPLIANCE MONITORING RESULTS* (Continued)

B. HAA5 Results

Site ID & Category	Data Type	HAA5 (mg/L)				LRAA
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					

Attach additional sheets as needed for SSS and Stage 1 DBPR results.

Form 5: IDSE Report for a Modeling SSS

V. SSS AND STAGE 1 DBPR COMPLIANCE MONITORING RESULTS* (Continued)

C. Where were your TTHM and HAA5 samples analyzed?

☐ In-House

Is your in-house laboratory certified? ☐ Yes ☐ No

☐ Certified Laboratory

Name of certified laboratory: _____

D. What method(s) was used to analyze your TTHM and HAA5 samples?

TTHM	HAA5	
☐ EPA 502.2	☐ EPA 552.1	☐ EPA 552.2
☐ EPA 524.3	☐ EPA 552.3	☐ SM 6251 B
☐ EPA 551.1		

VI. SELECTION OF STAGE 2 DBPR COMPLIANCE MONITORING LOCATIONS

Describe the comparison of sampling and modeling results (*attach additional sheets as needed*):

1.	How well did the sampling results correspond to the modeling results?	
2.	For samples that did not match well with model results, what follow-up investigations were performed?	
3.	Were additional samples collected? (Include data on table in Section IV)	
4.	**Submit a graph of water age versus time for each selected sampling location*.**	

Form 5: IDSE Report for a Modeling SSS

VII. JUSTIFICATION OF STAGE 2 DBPR COMPLIANCE MONITORING SITES*

Stage 2 Compliance Monitoring Site ID	Site Type	Justification
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	

Attach additional copies of this sheet if you need more room.

Form 5: IDSE Report for a Modeling SSS

VIII. PEAK HISTORICAL MONTH

A. Peak Historical Month* _____

B. Is Your Peak Historical Month the Same as your Peak Month in Your Modeling Study Plan?

☐ Yes ☐ No

If no, explain how you selected your new peak historical month *(attach additional sheets if needed)*:

_____

_____

_____

_____

_____

IX. PROPOSED STAGE 2 COMPLIANCE MONITORING SCHEDULE*

Stage 2 Compliance Monitoring Site ID	Projected Sampling Date (date or week)[1]			
	period 1	period 2	period 3	period 4

[1] *period = monitoring period. Complete for the number of monitoring periods from Section II.C.*

Attach additional copies of this sheet if you need more room.

Form 5: IDSE Report for a Modeling SSS

X. DISTRIBUTION SYSTEM SCHEMATIC*

*(Skip this section if you submitted a modeling study plan and your distribution system schematic **was complete** and has not changed from your approved modeling study plan, or if you are submitting the plan and report at the same time*)

ATTACH a schematic of your distribution system. If your schematic has changed or if you did not show your SSS monitoring locations on the distribution system schematic you submitted with your model study plan (Form 4), you must submit a revised distribution system schematic.

XI. ATTACHMENTS

- ☐ Tabular or spreadsheet documentation that your model meets minimum calibration requirements if updated since approved modeling study plan* (Section III).
- ☐ Additional sheets for explaining model information/results, including required graphs if not submitted as part of an approved modeling study plan* (Section III).
- ☐ Additional sheets for sampling results, if needed (Section V).
- ☐ Additional sheets for selection of Stage 2 DBPR compliance monitoring sites (Section VI).
- ☐ Graph of water age versus time for all Stage 2 DBPR sites selected* (Section VI).
- ☐ Additional sheets for justification of Stage 2 DBPR Compliance Monitoring Sites, if needed (Section VII). **REQUIRED if you are a subpart H system serving more than 249,999 people**.
- ☐ Additional sheets for explaining how you selected the peak historical month (Section VIII).
- ☐ Additional sheets for proposed compliance monitoring schedule (Section IX). **REQUIRED if you are a subpart H system serving more than 249,999 people**.
- ☐ Explanation of deviations from approved study plan.
- ☐ Distribution system schematic* (Section X). **REQUIRED if it has changed from your approved model study plan or if monitoring locations were not shown**.
- ☐ Compliance calculation procedures (for Stage 2 Compliance Monitoring Plan).

Total Number of Pages in Your Report: _____

Note: All items marked with an asterisk (*) are required by the rule.

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Form 6: Standard Monitoring Plan

I. GENERAL INFORMATION

A. PWS Information*

B. Date Submitted* _____

PWSID: _____

PWS Name: _____

PWS Address: _____

City: _____ State: _____ Zip: _____

Population Served: _____

System Type:	Source Water Type:	Buying / Selling Relationships:
☐ CWS	☐ Subpart H	☐ Consecutive System
☐ NTNCWS	☐ Ground	☐ Wholesale System
		☐ Neither

C. PWS Operations

Residual Disinfectant Type: ☐ Chlorine ☐ Chloramines ☐ Other:_____

Number of Disinfected Sources: ___ Surface ___GWUDI ____ Ground ___ Purchased

D. Contact Person*

Name: _____

Title: _____

Phone #: _____ Fax #: _____

E-mail: _____

II. IDSE REQUIREMENTS*

A. Number of Sites	B. Schedule	C. Standard Monitoring Frequency
Total: _____		
Near Entry Point: _____	☐ Schedule 1	☐ During peak historical month (1 monitoring period)
Avg Residence Time: _____	☐ Schedule 2	☐ Every 90 days (4 monitoring periods)
High TTHM: _____	☐ Schedule 3	☐ Every 60 days (6 monitoring periods)
High HAA5: _____	☐ Schedule 4	

Form 6: Standard Monitoring Plan

III. SELECTING STANDARD MONITORING SITES

A. Data Evaluated Put a A✓@ in each box corresponding to the data that you used to select each type of standard monitoring site. Check all that apply.

Data Type	Type of Site			
	Near Entry Pt.	Avg. Residence Time	High TTHM	High HAA5
System Configuration				
Pipe layout, locations of storage facilities				
Locations of sources and consecutive system entry points				
Pressure zones				
Information on population density				
Locations of large customers				
Water Quality and Operational Data				
Disinfectant residual data				
Stage 1 DBP data				
Other DBP data				
Microbiological monitoring data (e.g., HPC)				
Tank level data, pump run times				
Customer billing records				
Advanced Tools				
Water distribution system model				
Tracer study				

B. Summary of Data* Provide a summary of data you relied on to justify standard monitoring site selection. (*attach additional sheets if needed*)

Form 6: Standard Monitoring Plan

IV. JUSTIFICATION OF STANDARD MONITORING SITES*

Standard Monitoring Site ID (from map)[1]	Site Type	Justification
	☐ Near Entry Pt ☐ Avg. Res. Time ☐ High TTHM ☐ High HAA5	
	☐ Near Entry Pt ☐ Avg. Res. Time ☐ High TTHM ☐ High HAA5	
	☐ Near Entry Pt ☐ Avg. Res. Time ☐ High TTHM ☐ High HAA5	
	☐ Near Entry Pt ☐ Avg. Res. Time ☐ High TTHM ☐ High HAA5	
	☐ Near Entry Pt ☐ Avg. Res. Time ☐ High TTHM ☐ High HAA5	
	☐ Near Entry Pt ☐ Avg. Res. Time ☐ High TTHM ☐ High HAA5	
	☐ Near Entry Pt ☐ Avg. Res. Time ☐ High TTHM ☐ High HAA5	
	☐ Near Entry Pt ☐ Avg. Res. Time ☐ High TTHM ☐ High HAA5	

[1] Verify that site IDs match IDs in Section IV and on your distribution system schematic (See Section VII of this form). Attach additional copies if you are required to select more than 8 standard monitoring locations or need more room.

Form 6: Standard Monitoring Plan

V. PEAK HISTORICAL MONTH AND PROPOSED STANDARD MONITORING SCHEDULE

A. Peak Historical Month* _____

B. If Multiple Sources, Source Used to Determine Peak Historical Month
(write AN/A@ if only one source in your system)

_____

C. Peak Historical Month Based On* (check all that apply)

☐ High TTHM ☐ Warmest water temperature

☐ High HAA5

If you used other information to select your peak historical month, explain here (*attach additional sheets if needed*)

_____

_____

_____

D. Proposed Standard Monitoring Schedule*

Standard Monitoring Site ID (from map) [1]	Projected Sampling Date (date or week) [2]					
	period 1	period 2	period 3	period 4	period 5	period 6

[1] *Verify that site IDs match IDs in Section IV and on your distribution system schematic (See Section VII of this form). Attach additional copies if you are required to select more than 8 standard monitoring locations.*

[2] *period = monitoring period. Complete for the number of periods from Section II.C. Can list exact date or week (e.g., week of 7/9/07)*

Form 6: Standard Monitoring Plan

VI. PLANNED STAGE 1 DBPR COMPLIANCE MONITORING SCHEDULE*

Stage 1 DBPR Monitoring Site ID (from map) [1]	Projected Sampling Date (date or week) [2]			
	Period 1	Period 2	Period 3	Period 4

[1] Verify that site IDs match IDs on your distribution system schematic (See Section VII of this form). Attach additional copies if you are required to monitor at more than 8 Stage 1 DBPR sites.

[2] period = monitoring period. Complete for the number of periods in which you must conduct Stage 1 DBPR monitoring during IDSE monitoring. Can list exact date or week (e.g., week of 7/9/07)

VII. DISTRIBUTION SYSTEM SCHEMATIC*

ATTACH a schematic of your distribution system.

Distribution system schematics are not confidential and should not contain information that poses a ***security risk*** to your system. EPA recommends that you use one of two options:

Option 1: Distribution system schematic with no landmarks or addresses indicated. Show locations of sources, entry points, storage facilities, standard monitoring locations, and Stage 1 compliance monitoring locations (required). Also include pressure zone boundaries and locations of pump stations. Provide map scale.

Option 2: City map without locations of pipes indicated. Show locations of sources, entry points, storage facilities, standard monitoring locations, and Stage 1 compliance monitoring locations (required). Also include boundaries of the distribution system, pressure zone boundaries and locations of pump stations. Provide map scale.

Form 6: Standard Monitoring Plan

VIII. ATTACHMENTS

☐ Distribution System Schematic* (Section VII).

☐ Additional sheets for the summary of data or site justifications (Sections III and IV).

☐ Additional copies of Page 3 for justification of Standard Monitoring Sites (Section IV). **Required if** you are a subpart H system serving **more than 49,999 people** or a ground water system serving **more than 499,999 people**.

☐ Additional sheets for explaining how you used data other than TTHM, HAA5, and temperature data to select your peak historical month (Section V).

☐ Additional copies of Page 4 for proposed monitoring schedule (Section V). **Required if** you are a subpart H system serving **more than 49,999 people** or a ground water system serving **more than 499,999 people**.

☐ Additional sheets for planned Stage 1 DBPR compliance monitoring schedule (Section VI).

Total Number of Pages in Your Plan _____

Note: Fields with an asterisk (*) are required by the Stage 2 DBPR

Form 7: IDSE Report for Standard Monitoring

I. GENERAL INFORMATION

A. PWS Information*

B. Date Submitted* _____

PWSID: _____

PWS Name: _____

PWS Address: _____

City: _____ State: _____ Zip: _____

Population Served: _____

System Type:	Source Water Type:	Buying / Selling Relationships:
☐ CWS ☐ NTNCWS	☐ Subpart H ☐ Ground	☐ Consecutive System ☐ Wholesale System ☐ Neither

C. PWS Operations

Residual Disinfectant Type: ☐ Chlorine ☐ Chloramines ☐ Other:_____

Number of Disinfected Sources:___ Surface ___GWUDI ____ Ground ___ Purchased

D. Contact Person*

Name: _____

Title: _____

Phone #: _____ Fax #: _____

E-mail: _____

II. STAGE 2 DBPR REQUIREMENTS*

A. Number of Compliance Monitoring Sites	B. Schedule	C. Compliance Monitoring Frequency
Highest TTHM: ____ Highest HAA5: ____ Existing Stage 1: ____ Total: ____	☐ Schedule 1 ☐ Schedule 2 ☐ Schedule 3 ☐ Schedule 4	☐ During peak historical month (1 monitoring period) ☐ Every 90 days (4 monitoring periods)

Form 7: IDSE Report for Standard Monitoring

III. MONITORING RESULTS*

A. Did you deviate in any way from your approved standard monitoring plan? ☐ Yes ☐ No

If YES, explain (attach additional pages if necessary):

_____

_____

_____

_____

_____

_____

B. Where were your TTHM and HAA5 samples analyzed?

☐ In-House

Is your in-house laboratory certified? ☐ Yes ☐ No

☐ Certified Laboratory

Name of certified laboratory: _____

C. What method(s) was used to analyze your TTHM and HAA5 samples?

TTHM	HAA5
☐ EPA 502.2	☐ EPA 552.1
☐ EPA 524.3	☐ EPA 552.2
☐ EPA 551.1	☐ EPA 552.3
	☐ SM 6251 B

Form 7: IDSE Report for Standard Monitoring

III. MONITORING RESULTS (Continued)*

D. IDSE Standard Monitoring Results - TTHM

Site ID[1]	Data Type	TTHM (mg/L)						LRAA
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							

[1] *Verify that site IDs for IDSE standard monitoring sites match the site IDs in your Standard Monitoring Plan. Attach additional sheets as needed for IDSE standard monitoring results.*

Form 7: IDSE Report for Standard Monitoring

III. MONITORING RESULTS (Continued)*

E. IDSE Standard Monitoring Results - HAA5

Site ID[1]	Data Type	HAA5 (mg/L)						LRAA
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							

[1] *Verify that site IDs for IDSE standard monitoring sites match the site IDs in your Standard Monitoring Plan. Attach additional sheets as needed for IDSE standard monitoring results.*

Form 7: IDSE Report for Standard Monitoring

III. MONITORING RESULTS (Continued)*

F. Stage 1 DBPR Compliance Monitoring Results - TTHM

Site ID[1]	Data Type	TTHM (mg/L)				LRAA
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					

[1] *Verify that site IDs for Stage 1 compliance monitoring sites match the site IDs in your Standard Monitoring Plan. Attach additional sheets as needed for Stage 1 compliance monitoring results.*

Form 7: IDSE Report for Standard Monitoring

III. MONITORING RESULTS (Continued)*

G. Stage 1 DBPR Compliance Monitoring Results - HAA5

Site ID[1]	Data Type	HAA5 (mg/L)				LRAA
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					

[1] *Verify that site IDs for Stage 1 compliance monitoring sites match the site IDs in your Standard Monitoring Plan. Attach additional sheets as needed for Stage 1 compliance monitoring results.*

Form 7: IDSE Report for Standard Monitoring

IV. JUSTIFICATION OF STAGE 2 DBPR COMPLIANCE MONITORING SITES*

Stage 2 Compliance Monitoring Site ID	Site Type	Justification
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	
	☐ Highest TTHM ☐ Highest HAA5 ☐ Stage 1 DBPR	

Attach additional copies of this sheet if you need more room.

Form 7: IDSE Report for Standard Monitoring

V. PEAK HISTORICAL MONTH AND PROPOSED STAGE 2 DBPR COMPLIANCE MONITORING SCHEDULE

A. Peak Historical Month* _____

B. Is Your Peak Historical Month the Same as in Your IDSE Standard Monitoring Plan?

☐ Yes ☐ No

If no, explain how you selected your new peak historical month *(attach additional sheets if needed*)

_____

_____

_____

_____

_____

_____

_____

C. Proposed Stage 2 DBPR Compliance Monitoring Schedule*

Stage 2 Compliance Monitoring Site ID	Projected Sampling Date (date or week)[1]			
	period 1	period 2	period 3	period 4

[1] *period = monitoring period. Complete for the number of monitoring periods from Section II.C.*

Attach additional copies of this sheet if you need more room.

Form 7: IDSE Report for Standard Monitoring

VI. DISTRIBUTION SYSTEM SCHEMATIC*

ATTACH a schematic of your distribution system if it has changed since you submitted your Standard Monitoring Plan (Form 6).

VII. ATTACHMENTS

☐ Additional sheets for explaining how and why you deviated from your standard monitoring plan (Section III).

☐ Additional sheets for Standard Monitoring Results (Section III). **REQUIRED** if you are a subpart H system serving **more than 49,999 people** or a ground water system serving **more than 499,999 people**.

☐ Additional sheets for Stage 2 DBPR Compliance Monitoring Sites (Section IV). **REQUIRED** if you are a subpart H system serving **more than 249,999 people**.

☐ Additional sheets for explaining how you selected the peak historical month (Section V).

☐ Additional sheets for proposed Stage 2 DBPR peak historical month and compliance monitoring schedule (Section V). **REQUIRED** if you are a subpart H system serving **more than 249,999 people**.

☐ Distribution system schematic* (Section VI). **REQUIRED if it has changed from your approved IDSE standard monitoring plan**.

☐ Compliance calculation procedures (for Stage 2 Compliance Monitoring Plan).

Total Number of Pages in Your Report: _____

Note: Fields with an asterisk (*) are required by the Stage 2 DBPR

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Appendix F

Template Letters

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Template Letters

The following template letters have been developed as guidance. These templates are not a required format for communicating between EPA or states and the affected systems. However, they may serve as a formal notice of the issue and material for their own records and that EPA or the state has hard-copy documentation of the correspondence with the system.

Written notification should include:

- Summary of the issue.
- Appropriate contact if questions arise.
- Fact sheet or other summary materials (optional). EPA has developed the following fact sheets for the Stage 2 DBPR:
    - Stage 2 DBPR IDSE Standard Monitoring Factsheet (EPA 816-F-06-021 June 2006)
    - Stage 2 DBPR IDSE 40/30 Certification and Very Small System Waiver Factsheet (EPA 816-F-06-023 June 2006)
    - Stage 2 DBPR IDSE System Specific Study Factsheet (EPA 816-F-06-022 June 2006)

These additional materials can be found on EPA's Stage 2 DBPR website at www.epa.gov/safewater/disinfection/stage2.

Stage 2 DBPR template letters include:

- Requesting data supporting a 40/30 Certification
- Requiring a very small system to conduct an IDSE or submit supporting operational data
- Approving a systems request for 40/30 Certification
- Approving a Very Small System (VSS) Waiver
- Denying a systems request for 40/30 Certification
- Denying a Very Small System (VSS) Waiver
- Approving a system's Standard Monitoring Plan, System Specific Study Plan, or IDSE Report
- Notifying a system that their submission is incomplete
- Standard Monitoring Plan, System Specific Study Plan, or IDSE Report has been received but the review has not been completed

Letterhead

Contact Name
System Name
Address
City, State 12345

PWSID: XX1234567

RE: Stage 2 Disinfectants and Disinfection Byproduct Rule (Stage 2 DBPR)
Requesting additional information regarding your 40/30 Certification Submission

Dear Mr./Mrs./Ms._____:

On [Insert Date] this office received a 40/30 Certification submission from the system referenced above. In order for this office to be able to conduct a complete review of this submission one of the following documents indicated below must be submitted:

_____ Stage 1 Disinfectants and Disinfection Byproduct Rule (Stage 1 DBPR) data for the 8 consecutive quarter's eligibility period

_____ Distribution system schematic identifying Stage 1 DBPR and Initial Distribution System Evaluation (IDSE) monitoring locations

_____ Proposed Stage 2 DBPR compliance monitoring locations

Please submit the data requested above before [enter date prior to compliance deadline].
This information can be submitted by mail or electronically to:

Mail:	Electronically:
LT2/Stage2 IPMC	stage2mdbp@epa.gov
US EPA	
PO Box 98	Fax:
Dayton, OH 45401-0098	(937) 586-6557

Failure to submit this data will result in your 40/30 Certification being denied and your system will be required to complete Standard Monitoring or a System Specific Study to comply with IDSE requirements under Stage 2 DBPR.

Additional reference information is attached for your use. If you have questions regarding this letter, please contact us by sending an email to stage2mdbp@epa.gov. For more information regarding this rule visit the Stage 2 DBPR website at www.epa.gov/safewater/disinfection/stage2.

Enclosures:
Stage 2 DBPR Quick Reference Guide
Stage 2 DBPR IDSE 40/30 Certification and Very Small System Waiver Factsheet
[list other enclosures]

Letterhead

Contact Name
System Name
Address
City, State 12345

PWSID: XX1234567

RE: Stage 2 Disinfectants and Disinfection Byproduct Rule (Stage 2 DBPR)
Choose one:
Status of your Very Small System Waiver OR Requesting additional information for your Very Small System Waiver

Dear Mr./Mrs./Ms._____:

The Stage 2 DBPR requires systems that deliver water that has been treated with a primary or residual disinfectant other than ultraviolet light to conduct an Initial Distribution System Evaluation (IDSE). The results of the IDSE will help determine where your system will need to monitor in order to comply with the Stage 2 DBPR. Systems that serve fewer than 500 people can receive a Very Small System (VSS) Waiver from conducting an IDSE if the system has taken TTHM and HAA5 samples that meet the requirements of the Stage 1 Disinfectants and Disinfection Byproduct Rule (Stage 1 DBPR).

Our records indicate that while your system serves less than 500 people, your system has not collected TTHM and HAA5 samples under the Stage 1 DBPR. If your system in fact has collected TTHM and HAA5 that meet the requirements of the Stage 1 DBPR, please submit these results by [insert due date]. This information can be submitted by mail or electronically to:

Mail:	Electronically:
LT2/Stage2 IPMC	stage2mdbp@epa.gov
US EPA	
PO Box 98	Fax:
Dayton, OH 45401-0098	(937) 586-6557

We will review the data and make a determination if the data qualifies your system for a VSS Waiver.

If your system does not have TTHM or HAA5 data that meet the requirements of the Stage 1 DBPR your system is not eligible for a VSS Waiver and will need to comply with IDSE requirements under the Stage 2 DBPR. To satisfy IDSE requirements your system may conduct either Standard Monitoring or a System Specific Study. The first step in conducting either Standard Monitoring or a System Specific Study is to submit a Standard Monitoring or a System Specific Study Plan. The Standard Monitoring or a System Specific Study Plan must be submitted by [insert deadline for Standard Monitoring or SSS Plan]. EPA has developed several tools that can be used to help your system develop either Standard Monitoring or a System Specific Study Plan. They are:

- IDSE Guidance Manual B Comprehensive technical guidance document for all system sizes and types and all IDSE options. (www.epa.gov/safewater/disinfection/stage2).

- IDSE Tool B Web based tool for public water systems (PWSs) to understand the different options they have to comply with IDSE requirements, selects the best IDSE option for your system and

creates Custom Forms for your system (based on population served and system type) that can be submitted electronically to EPA and your state. (www.epa.gov/safewater/disinfection/tools)

- IDSE Tool CD-Rom – Available for systems without web access, the IDSE Tool CD-Rom has limited functionality, and is designed for systems serving less than 10,000 people. Completed plans can be emailed to the Stage 2 Inbox: stage2mdbp@epa.gov, or mailed to

  USEPA – IPMC
  P.O. Box 98
  Dayton, OH 45401

  Users will be able to obtain the IDSE Tool CD-Rom by contacting the National Service Center for Environmental Publications (NSCEP) at 1-800-490-9198 reference using the following: EPA 815-C-06-001.

Additional reference information is attached for your use. If you have questions regarding this letter, please contact us by sending an email to stage2mdbp@epa.gov. For more information regarding this rule visit the Stage 2 DBPR website at www.epa.gov/safewater/disinfection/stage2.

Enclosures:
Stage 2 DBPR Quick Reference Guide
Stage 2 DBPR IDSE 40/30 Certification and Very Small System Waiver Factsheet
Stage 2 DBPR IDSE Standard Monitoring Factsheet
Stage 2 DBPR IDSE System Specific Study Factsheet
[list other enclosures]

Letterhead

Contact Name
System Name
Address
City, State 12345

PWSID: XX1234567

RE: Stage 2 Disinfectants and Disinfection Byproduct Rule (Stage 2 DBPR)
Approval of 40/30 Certification

Dear Mr./Mrs./Ms._____:

This letter is to provide confirmation that your 40/30 Certification for compliance with the Stage 2 DBPR Initial Distribution System Evaluation (IDSE) requirement has been approved. Your system has satisfied the IDSE requirements for the Stage 2 DBPR. [Your system should continue to conduct Stage 1 Disinfectants and Disinfection Byproduct Rule (Stage 1 DBPR) monitoring.]

Your next step will be to prepare a monitoring plan for Stage 2 DBPR compliance monitoring. This plan must be completed before you are required to begin Stage 2 DBPR monitoring. Your system will need to begin complying with the Stage 2 DBPR monitoring [enter date for Stage 2 Compliance Monitoring].

Additional reference information is attached for your use. If you have questions regarding this letter, please contact us by sending an email to stage2mdbp@epa.gov. For more information regarding this rule visit the Stage 2 DBPR website at www.epa.gov/safewater/disinfection/stage2.

Enclosures:
Stage 2 DBPR Quick Reference Guide
Stage 2 DBPR IDSE 40/30 Certification and Very Small System Waiver Factsheet
[list other enclosures]

Letterhead

Contact Name
System Name
Address
City, State 12345

PWSID: XX1234567

RE: Stage 2 Disinfectants and Disinfection Byproduct Rule (Stage 2 DBPR)
Approval of Very Small System (VSS) Waiver

Dear Mr./Mrs./Ms._____:

This letter is to confirm that your system has been approved for a VSS Waiver for the Stage 2 DBPR Initial Distribution System Evaluation (IDSE) requirement. Your system has satisfied IDSE requirements under the Stage 2 DBPR. [Your system should continue to conduct Stage 1 Disinfectants and Disinfection Byproduct Rule (Stage 1 DBPR) monitoring.]

Your next step will be to prepare a monitoring plan for Stage 2 DBPR compliance monitoring. This plan must be completed before you are required to begin Stage 2 DBPR monitoring. Your system will need to begin complying with the Stage 2 DBPR monitoring [enter date for Stage 2 Compliance Monitoring].

Additional reference information is attached for your use. If you have questions regarding this letter, please contact us by sending an email to stage2mdbp@epa.gov. For more information regarding this rule visit the Stage 2 DBPR website at www.epa.gov/safewater/disinfection/stage2.

Enclosures:
Stage 2 DBPR Quick Reference Guide
Stage 2 DBPR IDSE 40/30 Certification and Very Small System Waiver Factsheet
[list other enclosures]

Letterhead

Contact Name
System Name
Address
City, State 12345

PWSID: XX1234567

RE: Stage 2 Disinfectants and Disinfection Byproduct Rule (Stage 2 DBPR)
Status of 40/30 Certification Submission

Dear Mr./Mrs./Ms._____:

This letter is to provide notice that your system's 40/30 Certification for compliance with the Stage 2 DBPR Initial Distribution System Evaluation (IDSE) requirement has been denied. The 40/30 Certification has been denied because:

_____ The system is a consecutive system that does not have sufficient amount of existing Stage 1 Disinfectants and Disinfection Byproduct Rule (Stage 1 DBPR) monitoring sites to justify the 40/30 Certification.

_____ The system has inadequate Stage 1 DBPR data to choose Stage 2 DBPR sites.

_____ There are other operational TTHM or HAA5 results that indicate higher disinfection byproducts (DBP) levels in the distribution system, or there is compliance data outside the 2-year compliance period that was significantly higher.

_____ The system's data is not representative of the highest potential for DBP formation months.

_____ The system is relying on data from an 8-quarter eligibility period in which natural circumstances favored lower DBP levels in the distribution system.

_____ The system recently made or is in the process of making distribution system changes that could affect DBP formation such as expansion of the distribution system, annexation of a new area, connection of a new subdivision, consolidation with another small water system, construction of a new storage tank or other:_____.

_____ The system recently made or is in the process of making disinfection practices or other treatment changes that may affect DBP formation.

_____ Other Reason:

The Stage 2 DBPR requires systems that do not receive an approval for their submitted 40/30 Certification to conduct Standard Monitoring or a System Specific Study. The results of these will help determine where your system will need to monitor to comply with the Stage 2 DBPR.

The first step in conducting either Standard Monitoring or a System Specific Study is to submit a Standard Monitoring or a System Specific Study Plan. The Standard Monitoring or a System Specific Study Plan must be submitted by [insert deadline for Standard Monitoring or SSS Plan]. EPA has

developed several tools that can be used to help your system develop either Standard Monitoring or a System Specific Study Plan. They are:

- IDSE Guidance Manual B Comprehensive technical guidance document for all system sizes and types and all IDSE options. (www.epa.gov/safewater/disinfection/stage2)

- IDSE Tool B Web based tool that determines your IDSE requirements, selects the best IDSE option for your system and creates Custom Forms for your system (based on population served and system type) that can be submitted electronically to EPA and your state. (www.epa.gov/safewater/disinfection/tools)

Additional reference information is attached for your use. If you have questions regarding this letter, please contact us by sending an email to stage2mdbp@epa.gov. For more information regarding this rule visit the Stage 2 DBPR website at www.epa.gov/safewater/disinfection/stage2.

Enclosures:
Stage 2 DBPR Quick Reference Guide
Stage 2 DBPR IDSE Standard Monitoring Factsheet
Stage 2 DBPR IDSE System Specific Study Factsheet
[list other enclosures]

Letterhead

Contact Name
System Name
Address
City, State 12345

PWSID: XX1234567

RE: Stage 2 Disinfectants and Disinfection Byproduct Rule (Stage 2 DBPR)
Status of Very Small System (VSS) Waiver Approval

Dear Mr./Mrs./Ms._____:

This letter is to inform you that your system will not receive a VSS Waiver for compliance with the Stage 2 DBPR Initial Distribution System Evaluation (IDSE) requirement. The VSS Waiver has been denied because:

_____ The sample sites are not representative of highest TTHM and HAA5 concentrations

_____ The system does not have adequate knowledge to determine Stage 2 DBPR compliance monitoring locations.

_____ The system is planning major changes that will affect the production of disinfection byproducts.

_____ Other Reason:

The Stage 2 DBPR requires that systems that do not receive a VSS Waiver to conduct Standard Monitoring or a System Specific Study. The results of these will help determine where your system will need to monitor to comply with the Stage 2 DBPR.

The first step in conducting either Standard Monitoring or a System Specific Study is to submit a Standard Monitoring or a System Specific Study Plan. The Standard Monitoring or a System Specific Study Plan must be submitted by [insert deadline for Standard Monitoring or SSS Plan]. EPA has developed several tools that can be used to help your system develop either Standard Monitoring or a System Specific Study Plan. They are:

- IDSE Guidance Manual B Comprehensive technical guidance document for all system sizes and types and all IDSE options. (www.epa.gov/safewater/disinfection/stage2)

- IDSE Tool B Web based tool that determines your IDSE requirements, selects the best IDSE option for your system and creates Custom Forms for your system (based on population served and system type) that can be submitted electronically to EPA and your state. (www.epa.gov/safewater/disinfection/tools)

Additional reference information is attached for your use. If you have questions regarding this letter, please contact us by sending an email to stage2mdbp@epa.gov. For more information regarding this rule visit the Stage 2 DBPR website at www.epa.gov/safewater/disinfection/stage2.

Enclosures:
Stage 2 DBPR Quick Reference Guide

Stage 2 DBPR IDSE Standard Monitoring Factsheet
Stage 2 DBPR IDSE System Specific Study Factsheet
[list other enclosures]

Letterhead

Contact Name
System Name
Address
City, State 12345

PWSID: XX1234567

RE: Stage 2 Disinfectants and Disinfection Byproduct Rule (Stage 2 DBPR)
Current Status of [Standard Monitoring Plan, System Specific Study Plan, IDSE Report] Submission

Dear Mr./Mrs./Ms._____:

This letter is to confirm that your system's [enter: Standard Monitoring Plan, System Specific Study Plan, IDSE Report] has been approved.

{Choose one: For Standard Monitoring: [You must conduct monitoring at each of the monitoring locations and dates listed in your Standard Monitoring Plan. If you deviate from the approved plan for any reason, you must include an explanation for the deviation in your IDSE Report. During each sample event, you must collect a dual sample set at each location. One sample must be analyzed for TTHM and the other must be analyzed for HAA5. You must use EPA-approved methods for analysis of your TTHM and HAA5 samples.]

For SSS: [Your must submit an IDSE Report. The primary purpose of the IDSE Report is to provide EPA or the state with the system=s recommendations for where and at what frequency Stage 2 DBPR compliance monitoring will be conducted.]

For IDSE Report: [Your system has fulfilled all IDSE requirements.]} Your system should continue to conduct Stage 1 Disinfectants and Disinfection Byproduct Rule (Stage 1 DBPR). Your system will need to begin complying with the Stage 2 DBPR monitoring by [enter date for Stage 2 Compliance Monitoring].

Additional reference information is attached for your use. If you have questions regarding this letter, please contact us by sending an email to stage2mdbp@epa.gov. For more information regarding this rule visit the Stage 2 DBPR website at www.epa.gov/safewater/disinfection/stage2.

Enclosures:
Stage 2 DBPR Quick Reference Guide
Stage 2 DBPR IDSE Standard Monitoring Factsheet
Stage 2 DBPR IDSE System Specific Study Factsheet
[list other enclosures]

Letterhead

Contact Name
System Name
Address
City, State 12345

PWSID: XX1234567

RE: Stage 2 Disinfectants and Disinfection Byproduct Rule (Stage 2 DBPR)
Incomplete Submission of [40/30 Certification, Standard Monitoring Plan, System Specific Study Plan, IDSE Report]

Dear Mr./Mrs./Ms._____:

This letter is to provide notice to you that your [40/30 Certification, Standard Monitoring Plan, System Specific Study Plan, IDSE Report] is incomplete. Your system will need to submit [insert missing information] by [insert due date] to remain in compliance with Stage 2 DBPR. This information can be submitted by mail or electronically to:

Mail:	Electronically:
LT2/Stage2 IPMC	stage2mdbp@epa.gov
US EPA	
PO Box 98	Fax: (937) 586-6557
Dayton, OH 45401-0098	

Additional reference information is attached for your use. If you have questions regarding this letter, please contact us by sending an email to stage2mdbp@epa.gov. For more information regarding this rule visit the Stage 2 DBPR website at www.epa.gov/safewater/disinfection/stage2.

Enclosures:
Stage 2 DBPR Quick Reference Guide
Stage 2 DBPR IDSE Standard Monitoring Factsheet
Stage 2 DBPR IDSE 40/30 Certification and Very Small System Waiver Factsheet
Stage 2 DBPR IDSE System Specific Study Factsheet
[list other enclosures]

Letterhead

Contact Name
System Name
Address
City, State 12345

PWSID: XX1234567

RE: Stage 2 Disinfectants and Disinfection Byproduct Rule (Stage 2 DBPR)
[Standard Monitoring Plan, System Specific Study Plan or IDSE Report] Received

Dear Mr./Mrs./Ms._____:

This letter is to provide confirmation to your system that your [enter: Standard Monitoring Plan, System Specific Study Plan, IDSE Report] has been received. A separate letter will be sent to your system once the [plan/report] has been reviewed. [Your system should continue to conduct Stage 1 Disinfectants and Disinfection Byproduct Rule (Stage 1 DBPR) monitoring.]

Additional reference information is attached for your use. If you have questions regarding this letter, please contact us by sending an email to stage2mdbp@epa.gov. For more information regarding this rule visit the Stage 2 DBPR website at www.epa.gov/safewater/disinfection/stage2.

Enclosures:
Stage 2 DBPR Quick Reference Guide
[list other enclosures]

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Appendix G

Instructions & Reviewer Checklists for Stage 2 DBPR Submissions

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Instructions & Reviewer Checklists for Stage 2 DBPR Submissions

Instructions for consistent review of IDSE submissions

40/30 Certification

Standard Monitoring

System Specific Study

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40/30 Certification - *Background Information for Reviewers*

The following information is to assist reviewers utilizing the 40/30 Certification Checklist. It is not intended to be an extensive review of the 40/30 Certification requirements. For more information on 40/30 Certifications requirements, please refer to the EPA website (www.epa.gov/safewater/disinfection/stage2/) and review the following documents:

- Initial Distribution System Evaluation (IDSE) Guidance Manual
- Factsheet: Very Small System Waiver and 40/30 Certification for Compliance with the IDSE Provisions of the Stage 2 DBPR
- Small System Guidance Manual for the Stage 2 DBPR
- The Stage 2 Disinfection Byproducts Rule (Stage 2 DBPR) State Implementation Guidance

I. Eligibility Criteria for 40/30 Certification

What are the eligibility criteria?

Systems that meet the following criteria are eligible for a 40/30 Certification:

- No TTHM sample exceeds 0.040mg/L;
- No HAA5 sample exceeds 0.030 mg/L; and,
- System has no TTHM or HAA5 monitoring violations for the entire eligibility period (8 consecutive quarters or 2 consecutive years):
  - Schedule 1&2: Data collected after January 2004
  - Schedule 3&4: Data collected after January 2005

What if the system does not have Stage 1 DBPR monitoring data?

Systems may use operational data for TTHM and HAA5 in lieu of Stage 1 DBPR data. All data used to backup a 40/30 Certification must meet Stage 1 DBPR requirements. Systems that submit operational data must meet the following criteria to be eligible for a 40/30 Certification:

- Analyzed samples using approved methods.
- Analyzed samples by a certified lab.
- Appropriate locations for sampling.
- Samples taken at the correct number of sites.
- Samples taken at the appropriate frequency.
- Samples taken during the month of the warmest water temperature. *Recommended if only one sample was taken.*

II. 40/30 Certification Submission

What does the 40/30 Certification Submission need to include?

The 40/30 Certification submission package consists of a 40/30 Certification letter that the system signs and submits indicating that they meet all three eligibility criteria mentioned above. Sample letter of 40/30 Certification can be found in the IDSE guidance manual. In addition to the 40/30 Certification, the EPA or the State can request additional resources. These could be:

- Stage 1 DBPR Data
- Stage 2 DBPR Recommended Sites
- Distribution System Schematic

It is recommended that systems are informed ahead of time of this requirement. The Information Processing and Management Center (IPMC) will have a list of preferences by State to use when reviewing submissions for completeness.

III. APPROVED 40/30 CERTIFICATION

What does an approved 40/30 Certification mean?

An approved 40/30 Certification only means that the system has satisfied the IDSE requirement of the Stage 2 DBPR. The system will then need to start preparing for Stage 2 DBPR Compliance by submitting a Stage 2 DBPR monitoring plan before the system is required to begin Stage 2 compliance monitoring.

If a system meets 40/30 Certification eligibility criteria, does the State have to approve the 40/30?

No. If the state feels like it is not in the best interest of public health to approve a 40/30 Certification then the state can ask the system to satisfy the IDSE requirement by conducting Standard Monitoring (SM) or System Specific Study (SSS). Some reasons for not approving a 40/30 certification could be:

- The system is a consecutive system that does not have sufficient amount of existing Stage 1 DBPR monitoring sites to justify the 40/30 Certification.
- The system has inadequate Stage 1 DBPR data to choose Stage 2 DBPR sites (for instance if the system has a few plants but a large population).
- There are other operational TTHM or HAA5 results that indicate higher DBP levels in the distribution system, or there is compliance data outside the 2-year compliance period that was significantly higher.
- The system's data is not representative of the highest potential for DBP formation months.
- The system is relying on data from an 8-quarter eligibility period in which natural circumstances may have favored lower DBP levels in the distribution system.
- The system recently made or is in the process of making distribution system changes that could affect DBP formation such as expansion of the distribution system, annexation of a new area, connection of a new subdivision, consolidation with another small water system, or construction of a new storage tank.
- The system recently made or is in the process of making disinfection practices or other treatment changes that may affect DBP formation.

IV. PROVISIONAL 40/30 CERTIFICATIONS:

Provisional 40/30 certifications are used by some Regions for systems that will have qualifying data after the 40/30 submission is due but before the Standard Monitoring is scheduled to begin. Since the requirements and criteria for submitting and approving Provisional 40/30 Certifications vary by Region, this topic is not covered in great detail in this document. Part 5 of the checklist addresses Provisional 40/30 certifications. Reviewers are strongly urged to discuss this matter with their Regional staff to ensure understanding of the reviewing criteria and requirement for this specific type of submission before conducting a review.

40/30 Certification – *Checklist Instructions*

The set of instructions below are to assist reviewers using the 40/30 Certification Checklist.

Part 1: PWS Information

1.A – PWS Name – Enter complete PWS name.

1.B – PWSID – Enter the complete 9-character PWSID number.

1.C – Address – Enter mailing address for PWS.

1.D – Date of submission – Enter date when submission was received.

1.E – Date Assigned – Enter date when submission was assigned to the Reviewer.

1.F – Schedule – Enter Schedule information as provided by the System. Reviewer should refer to the Data Collection and Tracking System (DCTS) to ensure the schedule indicated by the system matches the information found in the inventory. The reviewer should indicate if the schedules do not match.

Part 2: Review of Original 40/30 Certification Package

2.A – Indicate if the system submitted their 40/30 Certification package no later than the date identified below for their Schedule:

- Schedule 1 – by October 1, 2006
- Schedule 2 – by April 1, 2007
- Schedule 3 – by October 1, 2007
- Schedule 4 – by April 1, 2008

NOTE: If a 40/30 Certification is submitted late, a monitoring/reporting violation is incurred. However, this does not preclude the reviewer from approving the plan.

2.B – Indicate if the system meets the following eligibility criteria:

- No TTHM sample exceeds 0.040mg/L;
- No HAA5 sample exceeds 0.030 mg/L; and,
- System has no TTHM or HAA5 monitoring violations for the entire eligibility period (8 consecutive quarters or 2 consecutive years):
  - Schedule 1&2: Data collected after January 2004
  - Schedule 3&4: Data collected after January 2005

If the system does not meet the eligibility criteria described above then the system is not eligible for a 40/30 Certification and must complete either Standard Monitoring or a System Specific Study (SSS).

2.C – Indicate if the system submitted a satisfactory 40/30 Certification Letter. (A sample letter is provided in the IDSE Guidance Manual Page 4-5.)

Part 3: Additional Data Requested

If reviewer is unsure whether the system was required to submit additional information, check the DCTS.

3.A – Indicate if the system submitted Stage 2 DBPR recommended locations as required by the reviewing entity.

3.B – Indicate if the system submitted a Distribution System Schematic with the appropriate information (i.e. entry points, storage tanks and Stage 1 sample sites) as required by the reviewing entity.

3.C – Indicate if the system submitted Stage 1 DBPR compliance data as required by the reviewing entity.

3.D – Systems may submit operational data in lieu of Stage 1 DBPR compliance data if they meet Stage 1 DBPR compliance criteria. Stage 1 DBPR compliance criteria include:

- Samples analyzed using approved methods
- Samples analyzed by a certified lab
- Locations appropriate for sampling
- Appropriate number of sites

- Samples taken at the appropriate frequency
- Samples taken during the month of the warmest water temperature

Part 4: Approval/Disapproval of 40/30 Certification

Most systems will use Form 1 or the IDSE Tool to complete their 40/30 Certification.

4.A – The reviewer can approve or disapprove the 40/30 Certification. The reviewer can require Standard Monitoring, even if the system meets the 40/30 eligibility criteria. Questions a reviewer may want to consider when reviewing a 40/30 Certification:

- Is the system a consecutive system that does not have enough existing Stage 1 DBPR monitoring sites to justify the 40/30 Certification?
- Does the system have inadequate Stage 1 DBPR data to choose Stage 2 DBPR sites (e.g., system with few plants but a large population)?
- Does the system have other non-compliance TTHM or HAA5 results that indicate higher DBP levels in the distribution system, or is there compliance data outside the 2-year compliance period that were significantly higher?
- Does the system's data not represent the months that the State considers to have the highest potential for DBP formation?
- Is the system relying on data from an 8-quarter eligibility period in which natural circumstances may have favored lower DBP levels in the distribution system?
- Has the system recently made or is in the process of making distribution system changes that could affect DBP formation (e.g., expansion of the distribution system, annexation of a new area, connection of a new subdivision, consolidation with another small water system, or construction of a new storage tank)?
- Has the system recently made or is in the process of making disinfection practices or other treatment changes that may affect DBP formation?

4.B – If the reviewer disapproves the 40/30 Certification, a letter needs to be sent to the system informing them of the status of their submission and explaining what the next steps are for the system, such as submitting a SM Plan or SSS Plan. When contacting the system the reviewer should also consider the timeframe and determine if an alternate compliance schedule will need to be established for the system since the compliance date for the submitting the SM or SSS plans might have passed.

4.C – After completing the checklist, the reviewer must input the information into the DCTS. The reviewer should record the date of when the data was entered into the DCTS.

Part 5: Provisional 40/30 Certifications:

5.A – Indicate if the System submitted a Provisional 40/30 Certification.

5.B – Indicate if the Provisional 40/30 Certification submission followed the requirements and criteria as established by the Region. *(It is recommended that the reviewer enter requirement and criteria information in the comment section found at the end of the checklist.)*

5.C - Indicate if the reviewer has approved the Provisional 40/30 Certification. *(It is recommended that the reviewer indicate the conditions of the approval or reasons why the submission was not approved in the comments section found at the end of the checklist.)*

The **comment section** is intended for the reviewer to enter information regarding:

- Conversations with PWS.
- Observations or reasons why the 40/30 should not be approved.
- Details to ensure that anyone else who reviews the document can understand the reviewer's reasoning or intentions.
- Requirements and criteria for Provisional 40/30 Certification.

40/30 Certification - *Checklist*

Part 1. PWS Information	
1.A. PWS Name:	1.B. PWS ID:
1.C. PWS Address:	
1.D. Date of Submission:	1.E. Date Assigned:
1.F. System Schedule:	

Part 2. Review of Original 40/30 Certification Package	
☐ YES ☐ NO 2.A	Was 40/30 Certification package submitted by required date for their schedule? – Schedule 1 – by October 1, 2006 – Schedule 2 – by April 1, 2007 – Schedule 3 – by October 1, 2007 – Schedule 4 – by April 1, 2008
☐ YES ☐ NO 2.B	Did the system meet the 40/30 Certification eligibility criteria? – All individual TTHM samples are less than or equal to 0.040 mg/L. – All individual HAA5 samples are less than or equal to 0.030 mg/L. – System did not receive any monitoring violations during the eligibility period. – For systems on schedules 1 & 2, eight consecutive quarters starting no earlier than January 2004. – For systems on schedules 3 & 4, eight consecutive quarters starting no earlier than January 2005.
☐ YES ☐ NO 2.C	System submitted a satisfactory 40/30 Certification Letter.

Part 3. Additional Data Requested *Complete this section if system submitted additional data as required by the reviewing entity.*	
☐ YES ☐ NO ☐ N/A 3.A	System submitted Stage 2 DBPR recommended locations as required by the reviewing entity.
☐ YES ☐ NO ☐ N/A 3.B	System submitted Distribution System Schematic as required by the reviewing entity, including Stage 1 DBPR locations.
☐ YES ☐ NO ☐ N/A 3.C	System submitted Stage 1 DBPR compliance data as required by the reviewing entity.
☐ YES ☐ NO ☐ N/A 3.D	System submitted operational data in lieu of Stage 1 DBPR compliance data that met Stage 1 DBPR compliance criteria.

Part 4: Approval/Disapproval of 40/30 Certification	
☐ YES ☐ NO 4.A	40/30 Certification is complete and has been approved. If no, list reason _____
☐ YES ☐ NO ☐ N/A 4.B	The reviewer has disapproved the 40/30 Certification and has sent the system a letter informing them of the status of their submission and of additional actions required for compliance with the IDSE. Letter Sent: _____

☐ YES ☐ NO 4.C	Reviewer has entered the data into the Data Collection and Tracking System (DTCTS). Date:_____
Part 5: Provisional 40/30 Certification	
☐ YES ☐ NO 5.1	The system submitted Provisional 40/30 Certification.
☐ YES ☐ NO 5.2	The Provisional 40/30 certification submission met all the requirements and criteria as indicated by the Region.
☐ YES ☐ NO 5.3	The Provisional 40/30 certification submission has been approved under specific conditions indicated by the reviewing entity.
Comments: (Include notes from any discussions with the PWS. Use additional sheets if necessary)	
Initial Reviewer:	Date:
Final Reviewer:	Date:

Standard Monitoring Plans – Background Information for Reviewers

V. BACKGROUND INFORMATION FOR STANDARD MONITORING

The following information is to assist reviewers utilizing the Standard Monitoring Plan Review Checklist. It is not intended to be an extensive review of the Standard Monitoring Plan requirements. For more information on Standard Monitoring requirements, please refer to the EPA website (www.epa.gov/safewater/disinfection/stage2/) and review the following documents:

- Initial Distribution System Evaluation (IDSE) Guidance Manual
- Factsheet: Standard Monitoring for Compliance with the IDSE Provisions of the Stage 2 DBPR
- Small System Guidance Manual for the Stage 2 DBPR
- The Stage 2 Disinfection Byproducts Rule (Stage 2 DBPR) State Implementation Guidance Manual

Which systems must conduct Standard Monitoring?

Systems that do not qualify for a Very Small System (VSS) Waiver or 40/30 Certification and that do not perform a system specific study must conduct standard monitoring. In addition, reviewers can require systems to conduct standard monitoring if they feel more data is necessary to identify representative Stage 2 DPBR compliance locations.

What are the requirements for systems conducting Standard Monitoring?

Systems conducting Standard Monitoring are required to prepare a Standard Monitoring Plan and complete one year of standard monitoring as indicated in the approved standard monitoring plan. Forms to help a system complete a Standard Monitoring Plan are provided in the IDSE Guidance Manual.

What are the required elements for the Standard Monitoring Plan?

Systems must include the following elements in their Standard Monitoring Plan:

- Population served by the system
- System type (Subpart H or ground water)
- Distribution system schematic
- Dates of standard monitoring and Stage 1 DBPR compliance monitoring
- Justification of standard monitoring site selection

What is the deadline for completing the Standard Monitoring Plan?

Systems must submit their Standard Monitoring by the dates listed below.

- Schedule 1 – October 1, 2006
- Schedule 2 – April 1, 2007
- Schedule 3 – October 1, 2007
- Schedule 4 – April 1, 2008

Systems will consider plans approved if they are not contacted within 12 months after submission due date to inform them of modifications to the plan or that the review is not yet complete.

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Standard Monitoring – *Checklist Instructions*

The set of instructions below are to assist reviewers when using the Standard Monitoring Checklist.

Part 1: PWS Information

1.A – PWS Name – Enter complete PWS name.

1.B – PWSID – Enter the complete 9-character PWSID number.

1.C – Address – Enter mailing address for PWS.

1.D – Date of submission – Enter date when submission was received.

1.E – Date Assigned – Enter date when submission was assigned to the Reviewer.

1.F – Schedule – Enter Schedule information as provided by the System. Reviewer should refer to the Data Collection and Tracking System (DCTS) to ensure the schedule indicated by the system matches the information found in the inventory. The reviewer should indicate if the schedules do not match.

Part 2: Review of Standard Monitoring Plan

Some systems may have used Form 6 from the IDSE Guidance Manual to help them complete their Standard Monitoring Plan.

2.A – Indicate if the system submitted a Standard Monitoring Plan no later than the date identified below for their Schedule:

- Schedule 1 – by October 1, 2006
- Schedule 2 – by April 1, 2007
- Schedule 3 – by October 1, 2007
- Schedule 4 – by April 1, 2008

2.B – Indicate if the Standard Monitoring Plan included the following elements:

- Population served by the system.
- System type (Subpart H or ground water).
- Distribution system schematic (see section 2.E).
- Proposed dates of standard monitoring and Stage 1 DBPR compliance monitoring sampling (see section 2.F).
- Justification of standard monitoring site selection (see section 2.G).

2.C – Indicate if the Standard Monitoring Plan included the correct number of samples for each type of site: near entry points, average residence time, high TTHM locations, high HAA5 locations.

- Systems with more entry points than required must take samples at entry points to the distribution system with the highest annual flows.
- Systems with fewer entry points than required must make up the difference by replacing required entry point sites with equal numbers of TTHM and HAA5 sites.

System Type	Population Size Category	Monitoring Periods and Frequency of Sampling	Distribution System Monitoring Locations				
			Total per monitoring period	Near Entry Points	Average Residence Time	High TTHM Locations	High HAA5 Locations
Subpart H	<500 consecutive	one (during peak historical month)	2	1		1	
	<500 non-consecutive		2			1	1
	500-3,300 consecutive	four (every 90 days)	2	1		1	
	500-3,300 non-consecutive		2			1	1
	3,301-9,999		4		1	2	1
	10,000-49,999	six (every 60 days)	8	1	2	3	2
	50,000-249,999		16	3	4	5	4
	250,000-999,999		24	4	6	8	6
	1,000,000-4,999,999		32	6	8	10	8
	≥ 5,000,000		40	8	10	12	10
Ground	<500 consecutive	one (during peak historical month)[3]	2	1		1	
	<500 non-consecutive		2			1	1
	500-9,999	four (every 90 days)	2		1	1	
	10,000-99,999		6	1	1	2	2
	100,000-499,999		8	1	1	3	3
	≥ 500,000		12	2	2	4	4

2.D – Indicate if the system selected the peak historical month.

- Systems determine their peak historical month by reviewing available compliance, study or operational data to find the month with the highest TTHM or HAA5 concentration or warmest temperature. The system should indicate the basis for selecting its peak historical month in the Standard Monitoring Plan.
- For more detail, refer to page 7-22 of the IDSE Guidance Manual.

2.E – Indicate if the system demonstrated site selections on the distribution system schematic in the Standard Monitoring Plan. The sites should:

- Include information on storage tanks, booster chlorination facilities, entry point, sources, standard monitoring sites, and Stage 1 DBPR compliance monitoring sites.
- Be representative of the entire distribution system. If a significant portion of the distribution system is excluded from sampling, the reviewer should modify the plan to change sites from an over-represented area to an area that lacks representation.
- Provide good hydraulic representation. All pressure zones should be represented and sites should include areas that are hydraulically remote.
- Represent as many key trouble areas as possible, including:
  - Long dead end lines (Site should be prior to the last customer)
  - Areas down gradient of storage tanks
  - Areas with low chlorine residual levels
  - Areas influenced by booster chlorination
- Avoid representing the following locations:
  - Dead-ends where there are no customers
  - Prior to booster disinfection with chlorine
  - After the last hydrant or blow-off point

Remember to take into account the locations of the storage tanks, booster chlorination facilities, entry points, sources, standard monitoring sites, and Stage 1 DBPs compliance monitoring sites when reviewing the site selection.

2.F – Indicate if the system included the appropriate monitoring dates in the Standard Monitoring Plan. The system must:

- Monitor at the appropriate frequency for their system type, as presented in the table above.
- Include peak historical month in the monitoring dates.
- Include Stage 1 DBPR monitoring dates.

2.G – Indicate if the system included justifications for the site selections in the Standard Monitoring Plan. The justifications should be consistent with the information shown on the map. The following is a list of recommended locations per site type:

- Recommended near entry point monitoring sites:
  - After treatment or a consecutive connection
  - Before or at the first customer
- Recommended average residence time monitoring sites:
  - Upstream of large customers that are not close to an entry point
  - In highly developed areas, the approximate geographic center of the distribution system
- Recommended high TTHM monitoring sites:
  - Hydraulically downstream of storage facilities or booster disinfection
  - In hydraulic dead-ends, where the flow of water is low or stagnant
  - Near the ends of the distribution system, at or before the last group of customers
- Recommended high HAA5 monitoring sites:
  - In areas with existing, but minimal disinfectant residual
  - Near the ends of the distribution system, at or before the last group of customers
  - In mixing zones where water from different sources combines within the distribution system
  - At hydraulic dead ends
  - Downstream of storage facilities
  - Prior to the last fire hydrant
  - When selecting HAA5 sites, the system should consider whether it has biodegradation is occurring in the distribution system that they are aware of. The system should not select high HAA5 sites in locations that have free chlorine residuals less than 0.2 mg/L, or with chloramines (total chlorine) residuals less than 0.5 mg/L.

Part 3: Modification and Approval of Standard Monitoring Plan

3.A – The reviewer must decide whether any modifications to the Standard Monitoring Plan are necessary. The reviewer may:

- Request additional information from the system
- Work together with the system to select alternative sites (if the system cannot provide adequate justification)
- Make the modifications (if the system does not respond to the request for information).

3.B – To ensure the system can begin monitoring as proposed in its plan, the reviewer must notify the system whether the Standard Monitoring Plan has been approved or modified within 12 months of after the submission due date. If the reviewer cannot meet these deadlines, the reviewer must notify the system that the review is not complete. If, as a result, the system is not able to begin standard monitoring by the specified date in the rule, the reviewer will need to work with the system to set an alternative compliance schedule. *NOTE: If a Standard Monitoring Plan is submitted late, a monitoring/reporting violation is incurred. However, this does not preclude the reviewer from approving the plan.*

3.C –After completing the checklist, the reviewer must input the information into the Data Collection and Tracking System (DCTS). The reviewer should record the date when the data was entered into the DCTS in the checklist.

The **comment section** is intended for the reviewer to enter information regarding:

- Conversations with PWS.
- Any changes the reviewer made or requested the system to make to the Standard Monitoring Plan.
- Details to ensure that anyone else who reviews the document can understand the reason for modifications.

Standard Monitoring - *Checklist*

Part 1. PWS Information	
1.A. PWS Name:	1.B. PWS ID:
1.C. PWS Address:	
1.D. Date of Submission:	1.E. Date Assigned:
1.F. System Schedule:	

Part 2. Review of Standard Monitoring Plan	
☐ YES ☐ NO 2.A	Was Standard Monitoring Plan submitted by the required date? – Schedule 1 – by October 1, 2006 – Schedule 2 – by April 1, 2007 – Schedule 3 – by October 1, 2007 – Schedule 4 – by April 1, 2008
☐ YES ☐ NO 2.B	Did the system include the required elements? – Population served by the system – System type – Distribution system schematic – Dates of standard monitoring and Stage 1 DBPR compliance monitoring sampling – Justification of standard monitoring site selection
☐ YES ☐ NO 2.C	Did the system include the correct number of each type of site? – Near Entry Points – Average Residence Time – High TTHM locations – High HAA5 locations
☐ YES ☐ NO 2.D	Did the system identify the peak historical month?
☐ YES ☐ NO 2.E	Did the system indicate representative sites on the schematic for proposed standard monitoring?
☐ YES ☐ NO 2.F	Did the system include appropriate monitoring dates?
☐ YES ☐ NO 2.G	Did the system include adequate justification for the site selections?

Part 3. Approval/Disapproval/Modification of Standard Monitoring Plan	
☐ YES ☐ NO 3.A	Is it necessary to make any modifications to the Standard Monitoring Plan? If Yes use comment section to record required changes.
☐ YES ☐ NO 3.B	Was the system notified within 12 months after the due date of the submission that the plan has been: - Approved and system may conduct standard monitoring as indicated. - Approved with modifications and system must conduct standard monitoring including recommended modifications. - Disapproved, reviewer will work with system to submit a new standard monitoring plan. - Review has not been completed and system will not be able to start standard monitoring until the review is completed. Date System was Notified: _____

☐ YES ☐ NO 3.C	Reviewer has entered the data into the Data Collection and Tracking System (DCTS). Date:_____
Comments: (Include notes from any discussions with the PWS. Use additional sheets if necessary)	
Initial Reviewer:	Date:
Final Reviewer:	Date:

System Specific Study Plan Existing Data
Background Information for Reviewers

VI. BACKGROUND INFORMATION FOR SYSTEM SPECIFIC STUDY PLAN – EXISTING DATA

The following information is to assist reviewers utilizing the System Specific Study (SSS) Plan Review Checklist. It is not intended to be an extensive review of the SSS requirements. For more information on SSS requirements, please refer to the EPA website (www.epa.gov/safewater/disinfection/stage2/) and review the following documents:

- Initial Distribution System Evaluation (IDSE) Guidance Manual
- Factsheet: System Specific Studies for Compliance with the IDSE Provisions of the Stage 2 DBPR
- Small System Guidance Manual for the Stage 2 DBPR
- The Stage 2 Disinfection Byproducts Rule (Stage 2 DBPR) State Implementation Guidance

Which systems can conduct SSS using existing data?

Systems with Stage 1 DBPR monitoring or extensive operational data that meet the intent of the Stage 1 DBPR can conduct a SSS. However, existing monitoring results must include all Stage 1 DBPR compliance monitoring data. The existing data must meet the following requirements:

- Minimum number of monitoring locations, based on population served by the system and system type.
- Minimum number of TTHM and HAA5 samples, based on population served by the system and system type.
- One sample collected during the peak historical month for TTHM, HAA5, or warmest water temperature for every 12 months of qualifying data.
- Samples collected and analyzed using an EPA-approved method and a certified laboratory.
- Sample results collected no earlier than 5 years prior to the SSS plan submission deadline, based on system's schedule.
- Distribution system and treatment did not change significantly since samples were collected.
- Existing monitoring locations are representative of entire distribution system.

What are the requirements for systems conducting SSS using existing data?

Systems conducting SSS based on existing data are required to prepare a SSS Plan. Note that systems can submit their SSS Plan and IDSE Report together if the system has all the information required by the rule. Forms to help systems complete their Existing Data SSS Plan and IDSE Report are provided in the IDSE Guidance Manual.

What are the required elements for the existing data SSS Plan?

Systems using existing data must include the following elements in their SSS Plan:

- Population served by the system
- System type
- All Stage 1 DBPR monitoring results and other monitoring results collected from the beginning of the first reported result and ending with the most recent Stage 1 DBPR compliance results
- Certification that the system:
  - Included all compliance and non-compliance results.
  - Samples are representative of the entire distribution system.
  - Has not changed treatment or the distribution system significantly since the samples were collected.

- A distribution system schematic showing entry points, sources, storage facilities, and locations and dates of all completed and planned monitoring
- Identification of peak historical month for TTHM, HAA5, or warmest water

What is the deadline for completing the SSS Plan?

Systems must submit their Existing Data SSS Plan by the following dates:

- Schedule 1 – October 1, 2006
- Schedule 2 – April 1, 2007
- Schedule 3 – October 1, 2007
- Schedule 4 – April 1, 2008

Systems will consider plans approved if they are not contacted within 12 months after submission due date to inform them of modifications to the plan or that the review is not yet complete.

System Specific Study Existing Data – *Checklist Instructions*

The set of instructions below are to assist reviewers when using the SSS Plan Checklist.

Part 1: PWS Information

1.A – PWS Name – Enter complete PWS name.

1.B – PWSID – Enter the complete 9-character PWSID number.

1.C – Address – Enter mailing address for PWS.

1.D – Date of submission – Enter date when submission was received.

1.E – Date Assigned – Enter date when submission was assigned to the Reviewer.

1.F – Schedule – Enter Schedule information as provided by the System. Reviewer should refer to the DCTS to ensure the schedule indicated by the system matches the information found in the inventory. The reviewer should indicate if the schedules do not match.

Part 2: Review of Existing Data SSS Plan

Some systems may have used Form 2 from the IDSE Guidance Manual to help them complete their Existing Data SSS Plan.

2.A – Indicate if the systems submitted their Existing Data SSS Plan no later than the date identified below for their Schedule. *NOTE: If an SSS Plan is submitted late, a monitoring/reporting violation is incurred. However, this does not preclude the reviewer from approving the plan.*

- Schedule 1 – by October 1, 2006
- Schedule 2 – by April 1, 2007
- Schedule 3 – by October 1, 2007
- Schedule 4 – by April 1, 2008

2.B – Indicate if the SSS Plan included:

- Population served by the system.
- System type.
- Distribution system schematic, including:
  - Distribution entry points
  - Sources
  - Storage facilities
  - Locations of all completed and planned SSS monitoring
  - Locations of Stage 1 DBPR compliance samples

2.C – Indicate if the system sampled at least once during the peak historical month.

- Systems determine their peak historical month by reviewing available compliance, study or operational data to determine the month with the highest TTHM or HAA5 concentration or warmest water temperature. The system should indicate the basis for selecting its peak historical month in the SSS plan.

2.D – Indicate if the system submitted results of existing data, including all Stage 1 DBPR compliance monitoring data. The system must certify that all required data have been included in the plan.

- Sample results must have been collected no earlier than 5 years prior to the SSS plan submission deadline, based on system's schedule.
  - Schedule 1: October 1, 2001 – October 1, 2006
  - Schedule 2: April 1, 2001 – April 1, 2006
  - Schedule 3: October 1, 2002 – October 1, 2007
  - Schedule 4: April 1, 2003 – April 1, 2008

2.E – Indicate if the system certified that the:

- Samples were collected and analyzed using an EPA-approved method and a certified laboratory.

- Treatment did not change significantly since samples were collected. Examples of significant treatment changes include:
  - Permanent changes in primary or secondary disinfection type or practice.
  - Major permanent changes in raw water sources that significantly affected DBP concentrations in water produced by the plant.
  - Major permanent changes to plant configuration that affect DBP concentrations.
  - Major permanent changes in treatment that affect DBP concentrations in water produced by the plant.
- Distribution system has not changed significantly since samples were collected. Examples of significant distribution system changes include:
  - Major, permanent changes in plant production rates.
  - Installation or removal of high service or booster pump stations, or pump operation schemes.
  - Major, permanent changes in water use patterns or system hydraulics.

2.F – Indicate if samples submitted are representative of normal operating conditions. Systems should not have experienced any unusual events or circumstances during the sampling period, such as:

- Main breaks.
- Treatment failure.
- Power failure.
- Periods of drought or flooding that may have had a significant impact on DBP levels in the distribution system.

2.G – Indicate if the systems sampled at the minimum number of monitoring locations and collected the minimum number of TTHM and HAA5 samples (see table below).

Source Water Type	System Size Category (Population Served)	Minimum Number of Monitoring Locations	Minimum Number of Samples	
			TTHM	HAA5
Subpart H	<500	3	3	3
	500-3,300	3	9	9
	3,301-9,999	6	36	36
	10,000-49,999	12	72	72
	50,000-249,999	24	144	144
	250,000-999,999	36	216	216
	1,000,000-4,999,999	48	288	288
	≥5,000,000	60	360	360
Ground Water	<500	3	3	3
	500-9,999	3	9	9
	10,000-99,999	12	48	48
	100,000-499,999	18	72	72
	≥500,000	24	96	96

2.H – Indicate if the monitoring locations are representative of the entire distribution system.

- Samples must provide good geographic representation.
- Samples must provide good hydraulic representation by including:
  - Pressure zones.
  - Sites that address hydraulically remote areas.
- The sampling must include key trouble areas including:
  - Long dead end lines
  - Areas down gradient of storage tanks

- Areas with low residual chlorine levels
- Areas influenced by booster chlorination (depending on the water chemistry and age)

Part 3: Approval/Disapproval/Modification of System Specific Study Plan

3.A – The reviewer must decide whether any modifications to the Existing Data SSS Plan are necessary. The reviewer may:

- Request additional information if the minimum requirements have not been met.
- Make the modifications (if the system does not respond to the request for information).

3.B – To ensure the system can begin monitoring as proposed in its plan, the reviewer must notify the system whether the SSS Plan has been approved or modified within 12 months after the submission due date. If the reviewer cannot meet these deadlines, the reviewer must notify the system that the review is not complete.

3.C – After completing the checklist, the reviewer must input the information into the Data Collection and Tracking System (DCTS). The reviewer should record the date when the data was entered into the DCTS.

The **comment section** is intended for the reviewer to enter information regarding:

- Conversations with PWS.
- Observations or reasons why the SSS should not be approved.
- Details to ensure that anyone else who reviews the document can understand the reviewer's reasoning or intentions.

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System Specific Study Existing Data - *Checklist*

Part 1. PWS Information	
1.A PWS Name:	1.B PWS ID:
1.C PWS Address:	
1.D Date of Submission:	1.E Date Assigned:
1.F System Schedule:	

Part 2. Review of SSS Plan – *Existing Data*	
☐ YES ☐ NO 2.A	Was the SSS Plan submitted by required date? – Schedule 1 – by October 1, 2006 – Schedule 2 – by April 1, 2007 – Schedule 3 – by October 1, 2007 – Schedule 4 – by April 1, 2008
☐ YES ☐ NO 2.B	Did the system include the required elements? – Population served by the system – System type – Distribution system schematic (showing distribution entry points, sources, storage facilities, and locations of SSS monitoring and Stage 1 DBPR compliance monitoring)
☐ YES ☐ NO 2.C	Did the system identify the peak historical month?
☐ YES ☐ NO 2.D	Did the system submit all Stage 1 DBPR monitoring results and other monitoring results collected beginning with the first reported result (having been collected no earlier than 5 years prior to the SSS plan submission deadline) and ending with the most recent Stage 1 DBPR compliance results? – Schedule 1: 10/1/01 – 10/1/06 – Schedule 2: 4/1/01 – 4/1/06 – Schedule 3: 10/1/02 – 10/1/07 – Schedule 4: 4/1/03 – 4/1/08
☐ YES ☐ NO 2.E	Did the system certify that: - Samples were collected & analyzed in accordance with an approved EPA method and by a certified laboratory. - Treatment has not changed significantly since samples were collected. - Samples represented normal operating conditions.
☐ YES ☐ NO 2.F	Do the samples represent normal operating conditions?
☐ YES ☐ NO 2.G	Did the system sample at the minimum number of monitoring locations and collect the minimum number of TTHM and HAA5 samples (based on population served)?
☐ YES ☐ NO 2.H	Are the monitoring locations representative of the entire distribution system?

Part 3. Approval/Disapproval/Modifications of System Specific Study Plan	
☐ YES ☐ NO 3.A	Is it necessary to make any modifications to the Existing Data SSS Plan?

☐ YES ☐ NO 3.B	Was the system notified within 12 months after the due date of the submission that the plan has been: - Approved - Approved with modifications - Disapproved - Review has not been completed Date System was Notified: __
☐ YES ☐ NO 3.C	Reviewer has entered the data into the Data Collection and Tracking System (DCTS). Date:_____

Comments: (Include notes from any discussions with the PWS. Use additional sheets if necessary)

Initial Reviewer:	Date:
Final Reviewer:	Date:

System Specific Study Plan Modeling
Background Information for Reviewers

VII. BACKGROUND INFORMATION FOR MODELING SSS

The following information is to assist reviewers utilizing the System Specific Study (SSS) Plan for modeling. It is not intended to be an extensive review of the SSS requirements. For a more information on SSS requirements, please refer to the EPA website (www.epa.gov/safewater/disinfection/stage2/) and review the following documents:

- Initial Distribution System Evaluation (IDSE) Guidance Manual
- Initial Distribution System Evaluation (IDSE) Guide for Systems < 10,000
- Factsheet: System Specific Studies for Compliance with the IDSE Provisions of the Stage 2 DBPR
- Small System Guidance Manual for the Stage 2 DBPR
- The Stage 2 Disinfection Byproducts Rule (Stage 2 DBPR) State Implementation Guidance

Which systems should conduct SSS using modeled data?

Systems that have developed a detailed and well-calibrated distribution system hydraulic model that meets the minimum model requirements can conduct a modeling SSS. If a system's existing model does not meet the minimum model requirements at the beginning of the IDSE period, the system may be able to upgrade the model to complete the modeling SSS or use it in combination with other data and analyses to select sites for standard monitoring. Systems should avoid creating a distribution system hydraulic model from scratch unless it will be used for other purposes, as it is likely to cost more than conducting standard monitoring.

What are the requirements for systems conducting SSS using modeled data?

Systems conducting an SSS based on existing data are required to prepare SSS Plan based on modeled data. Systems that have already completed their required monitoring and have calibrated their model can submit their SSS Plan and IDSE Report together. Forms to help systems complete their Modeling SSS Plan and IDSE Report are provided in the IDSE Guidance Manual.

What are the minimum requirements for the hydraulic model?

The model must include data describing the physical system, such as pipe length and volume in the distribution system. The model must simulate diurnal variations in demand over an extended period of time. In addition, the model must be able to simulate water age during the peak month of TTHM formation using a long enough simulation so that initial conditions are overcome and 24-hour consistent, repeating pattern of water ages is demonstrated. Finally, the model must be calibrated and verified no later than 12 months after the system's required plan submission date.

What are the required elements for the Modeling SSS Plan?

Systems using modeled data must include the following elements in their SSS Plan:

- Population served by the system
- System type
- A distribution system schematic showing entry points, sources, storage facilities, and locations and dates of all completed and planned monitoring
- Tabular or spreadsheet data demonstrating that the model meets the physical system data requirements
- A description of all calibration activities undertaken (or to be undertaken)
- Preliminary results of the modeling analysis showing a 24-hour consistent, repeating pattern of water ages

- Timing and number of samples planned for at least one period of TTHM and HAA5 monitoring at a number of locations no less than that required for the system under standard monitoring during the month of high TTHM
- Description of how all requirements will be completed no later than 12 months after the required plan submission date

What is the deadline for completing the Modeling SSS Plan?

Systems must complete Modeling SSS requirements by the dates listed below.

- Schedule 1 – October 1, 2006
- Schedule 2 – April 1, 2007
- Schedule 3 – October 1, 2007
- Schedule 4 – April 1, 2008

Systems will consider plans approved if they are not contacted within 12 months after submission due date to inform them of modifications to the plan or that the review is not yet complete.

System Specific Study Modeling- *Checklist Instructions*

Part 1: PWS Information

1.A – PWS Name – Enter complete PWS name.

1.B – PWSID – Enter the complete 9-character PWSID number.

1.C – Address – Enter mailing address for PWS.

1.D – Date of submission – Enter date when submission was received.

1.E – Date Assigned – Enter date when submission was assigned to the Reviewer.

1.F – Schedule – Enter Schedule information as provided by the System. Reviewer should refer to the DCTS to ensure the schedule indicated by the system matches the information found in the inventory. The reviewer should indicate if the schedules do not match.

Part 2: Review of Modeling SSS Plan

Some systems may have used Form 4 from the IDSE Guidance Manual to help them complete their Modeling SSS Plan. Note that models prepared for long-range master planning purposes are not likely to meet the minimum requirements. Calibrated models prepared for detailed distribution system design or operational studies are likely to be adequate.

2.A – Indicate if the system submitted the Modeling SSS Plan no later than the date identified below for the Schedule. *NOTE: If an SSS Plan is submitted late, a monitoring/reporting violation is incurred. However, this does not preclude the reviewer from approving the plan.*

- Schedule 1 – by October 1, 2006
- Schedule 2 – by April 1, 2007
- Schedule 3 – by October 1, 2007
- Schedule 4 – by April 1, 2008

2.B – Indicate if the Modeling SSS Plan includes:

- Population served by the system
- System type (Subpart H or ground)
- A distribution system schematic showing entry points, sources, storage facilities, and locations and dates of all completed and planned monitoring
- Description of how all requirements will be completed no later than 12 months after the required plan submission date

2.C – Indicate if the system submitted a tabular or spreadsheet data model to demonstrate the following physical system data requirements:

- At least 50 percent of total pipe length in the distribution system.
- At least 75 percent of the pipe volume in the distribution system.
- All 12-inch diameter and larger pipes.
- All 8-inch diameter and larger pipes that connect pressure zones, mixing zones from different sources, storage facilities, major demand areas, pumps, and control valves, or are known or expected to be significant conveyors of water.
- All 6-inch diameter and larger pipes that connect remote areas of a distribution system to the main portion of the system or are known or expected to be significant conveyors of water.
- All storage facilities, with controls or settings applied to govern the open/closed status of the facility that reflects standard operations.
- All active pump stations, with realistic controls or settings applied to govern their on/off status that reflects standard operations.
- All active control valves or other system features that could significantly affect the flow of water through the distribution system (e.g., interconnections with other systems, pressure reducing valves between pressure zones).

2. D – Indicate if the model includes the extended period simulation (EPS) with representative diurnal variations in demand. The simulation must also represent total system demand for the peak month of TTHM formation. The model must simulate water age during the peak month of TTHM formation using a sufficient simulation length to

overcome initial conditions and produce a 24-hour water consistent, repeating pattern of water age. To ensure that system components, including the storage tank with the highest water age, show a pattern of repeating residence time, the model must be run for an extended time period.

The reviewer should consider the following information while reviewing demand data:

- "Dead-end" areas that represent significant flow demands, such as industrial customers or large subdivisions, should be included in the model.
- Water demand should be allocated to as many nodes in the model as possible, and the allocation should represent the actual spatial distribution of the demands based on metering records. Water demands from all significant users should be included.
- The model must incorporate the correct water demand for the peak month of TTHM formation.
- System water loss should be taken into account in the allocation of demands.
- Demand variations over the time period of the model should be taken into account. These should include diurnal demand fluctuations. Where applicable, fluctuation patterns over the day and over the week that are considered appropriate for each type of user (residential, industrial, etc.) should be used by the modeler.
- Time steps of 1-5 minutes for model calculations typically produce acceptable results.
- The actual operation of the distribution system (whether it is done manually, through telemetry, through other system controls, or a combination of these methods) should be simulated for the entire modeling time period. In general, model controls are either logic or time-based. Logic-based controls initiate an activity based upon a system condition (e.g., a well pump is activated because the water level in a tank has dropped two feet). Time-based controls perform an activity simply based on a clock setting (e.g., a booster pump turns on to pump water to a storage tank from 8:00 to 9:00 A.M. every morning). If changes in operating conditions typically occur during the period of the model simulation (e.g., weekend operating conditions vs. weekday conditions), then those operational changes should be included.

The reviewer may want to consider the following questions about the model:

- How was system operation represented in the model?
- What time steps were used?
- How were operational controls represented (e.g., time controls or logic controls etc.)?
- For water quality models, how was water quality simulated?
- How were water demands assigned?
- How were diurnal demands estimated?
- How many demand categories were used?
- How were large demand customers addressed?

2.E – Indicate if the model was calibrated properly.

- Systems must perform a calibration verification using data for the peak month of TTHM formation and the current system configuration (i.e., operational controls to represent typical operation during the peak month of TTHM formation).
- The model must be calibrated (or the applicant must have calibration plans) for the current configuration of the distribution system during the period of high TTHMs.
- Systems must evaluate actual system performance compared to model performance at all storage facilities in the system.
- A graph must compare predicted tank levels and measured tank levels for the storage facility with the highest residence time in each pressure zone (if calibration is complete).
- All calibration must be completed within 12 months after plan submission (if not already completed).
- A time series graph of residence time at the longest residence time storage facility in the distribution system must show predictions for the entire EPS simulation period (if calibration is complete).
- Model output must show 24-hour preliminary average residence time predictions throughout the distribution system.

When reviewing information on calibration, reviewers should consider the following information and questions:

- When was the model last calibrated? (A model that has not been calibrated in the last 10 years will not likely produce results consistent with the current system configuration.)

- Was the model calibrated for the month of peak historical TTHM formation potential?
- What types of data were used (e.g., tracer studies, fire flow tests)? The actual data collected for model calibration will vary according to the characteristics of each system. In general, calibration should incorporate the following information:
  - Flow from each pump or pumping facility (including the sequential operation of each pump).
  - Water level variations in each storage facility.
  - System pressure readings.
  - System flow tests (e.g., at hydrants).
- When was this calibration data collected?
- What field tests (e.g., flow testing at hydrants) were done to collect calibration data?
- How were friction factors/C factors determined?
- If a water quality model is used, what parameters were used to calibrate the model? (Chlorine residual, DBP data, SDS tests, etc.)
- Has the distribution system changed since the model was developed and last calibrated? If so, systems should describe the changes.
- If the system provided a history of the model development and calibration, what has the model been used for, and what decisions have been based on the model?
- Did the system collect operational data over a 24-hour time period so that models can be calibrated for each time step? (Many systems collect operational data using supervisory control and data acquisition (SCADA) systems, chart recorders, or other types of data loggers.)

2.F – Indicate if the system included timing and number of samples planned for at least one round of TTHM and HAA5 monitoring. The number of locations must be no less than required for the system under standard monitoring during the month of high TTHM. The reviewer should consider asking how the system plans to use data from its round of monitoring at TTHM and HAA5 sites:

- Will the data be used to corroborate or further calibrate the model?
- If the data is not consistent with model predictions for TTHM, what steps will the system take to explain the inconsistency?

Part 3: Approval/Disapproval/Modification of System Specific Study Plan

3.A – The reviewer must decide whether any modifications to the Modeling SSS Plan are necessary. The reviewer may:

- Request additional information from the system if the minimum requirements do not appear to have been met.
- Make the modifications (if the system does not respond to the request for information).

3.B – To ensure the system can begin monitoring as proposed in its plan, the reviewer must notify the system whether the SSS Plan has been approved or modified within 12 months after submission due date. If the reviewer cannot meet these deadlines, the reviewer must notify the system that their review is not complete.

3.C – After completing the checklist, the reviewer must input the information into the Data Collection and Tracking System (DCTS). The reviewer should record the date the data was entered into the DCTS.

The **comment section** is intended for the reviewer to enter information regarding:

- Conversations with PWS.
- Observations or reasons why the Modeling SSS should not be approved.

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System Specific Study Modeling - *Checklist*

Part 1. PWS Information	
1.A. PWS Name:	1.B. PWS ID:
1.C. PWS Address:	
1.D. Date of Submission:	1.E. Date Assigned:
1.F. System Schedule:	

Part 2. Review of Modeling SSS Plan	
☐ YES ☐ NO 2.A	Was the SSS Plan submitted by required date? – Schedule 1 – by October 1, 2006 – Schedule 2 – by April 1, 2007 – Schedule 3 – by October 1, 2007 – Schedule 4 – by April 1, 2008
☐ YES ☐ NO 2.B	Did the system include the required elements? – Population served by the system – System type – Distribution system schematic (showing distribution entry points, sources, storage facilities, and locations of SSS monitoring and Stage 1 DBPR compliance monitoring) – Description of how all requirements will be completed no later than 12 months after the required plan submission date
☐ YES ☐ NO 2.C	Did the system provide data demonstrating that the model meets the minimum physical system data requirements?
☐ YES ☐ NO 2.D	Did the system provide preliminary results that show 24-hour average water age predictions throughout the distribution system during the peak month of TTHM formation?
☐ YES ☐ NO 2.E	Did the system provide a description of all calibration activities that were undertaken, or that will be undertaken to ensure proper calibration of the model?
☐ YES ☐ NO 2.F	Did the system include information on its schedule for TTHM and HAA5 sampling during the month of high TTHM, which would be equivalent to one period of monitoring required under standard monitoring?
Part 3. Modification and Approval of Standard Monitoring Plan	
☐ YES ☐ NO 3.A	Is it necessary to make any modifications to the Modeling SSS Plan?
☐ YES ☐ NO 3.B	Has the system has been notified by the required date that the SSS Plan is approved or modified or that the review is not completed? – Schedule 1 – by October 1, 2007 – Schedule 2 – by April 1, 2008 – Schedule 3 – by October 1, 2008 – Schedule 4 – by April 1, 2009
☐ YES ☐ NO 3.C	Reviewer has entered the data into the Data Collection and Tracking System (DCTS). Date:_____

Comments: (Include notes from any discussions with the PWS. Use additional sheets if necessary)

Initial Reviewer:	Date:
Final Reviewer:	Date:

Appendix H

Data Collection and Tracking System (DCTS)

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Data Collection and Tracking System (DCTS)

1. *Registration Step-by-Step*

2. *User's Guide for the LT2/Stage 2 Tracking System*

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Step-by-Step Registration for Central Data Exchange (CDX)/ Data Collection and Tracking System (DCTS)

Did you receive a letter from EPA/IPMC providing a Customer Retrieval Key (CRK)?

YES - Follow the directions under "A. Step-by-Step Registration for DCTS using CRK"

NO - Follow the directions under "B. Step-by-Step Registration for DCTS using CDX"

A. *Step-by-Step Registration for DCTS using CRK (Steps A.1. - A.12. need to be completed once. Once the password is setup, go to A.13.)*

A.1. Go to: http://cdx.epa.gov/preregistration

A.2. Input the CRK provided in the letter from EPA. You will only input the CRK the first time you enter the DCTS

A.3. Click on "Register"

A.3. Read the Warning Notice and Privacy Statements

A.4. Click on "Click here to continue" – New screen will appear

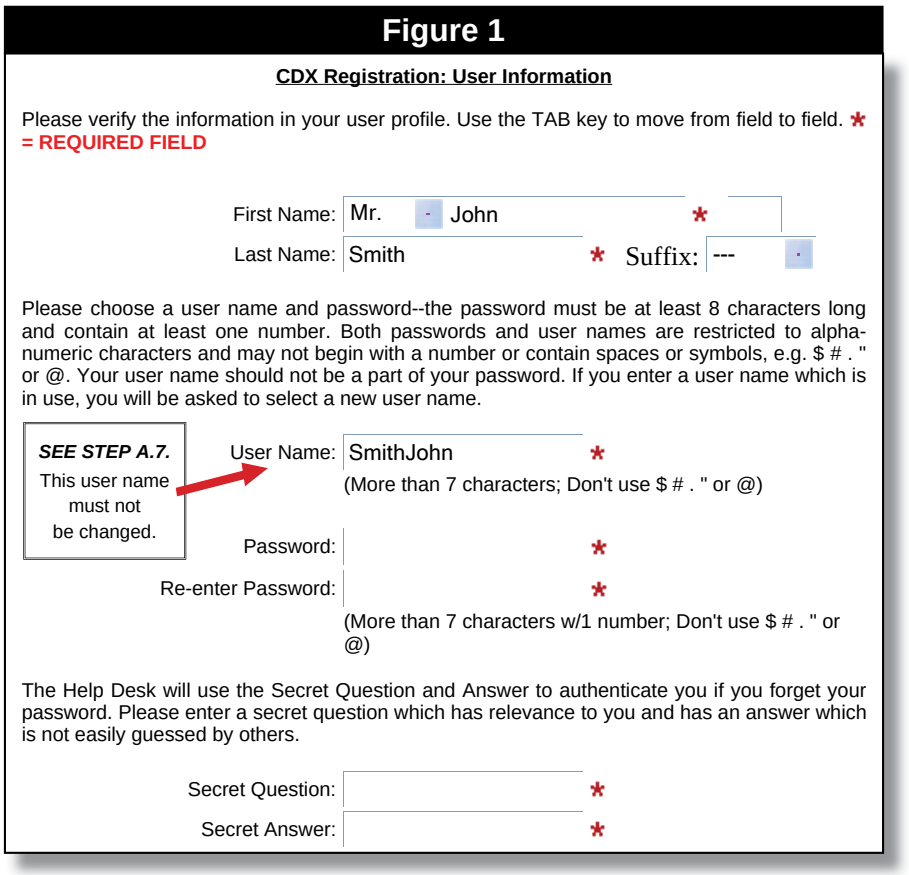
A.5. Read the Terms and Conditions

A.6. Click on "I Accept" and you will be sent to the registration page – New screen will appear

CDX Registration: User Information

A.7. Note – The user name box will automatically have your user name. **This must not be changed** (see Figure 1). This is the user name you will use in the future each time you log-in to DCTS.

Figure 1



A.8. Input a password (following recommended format)

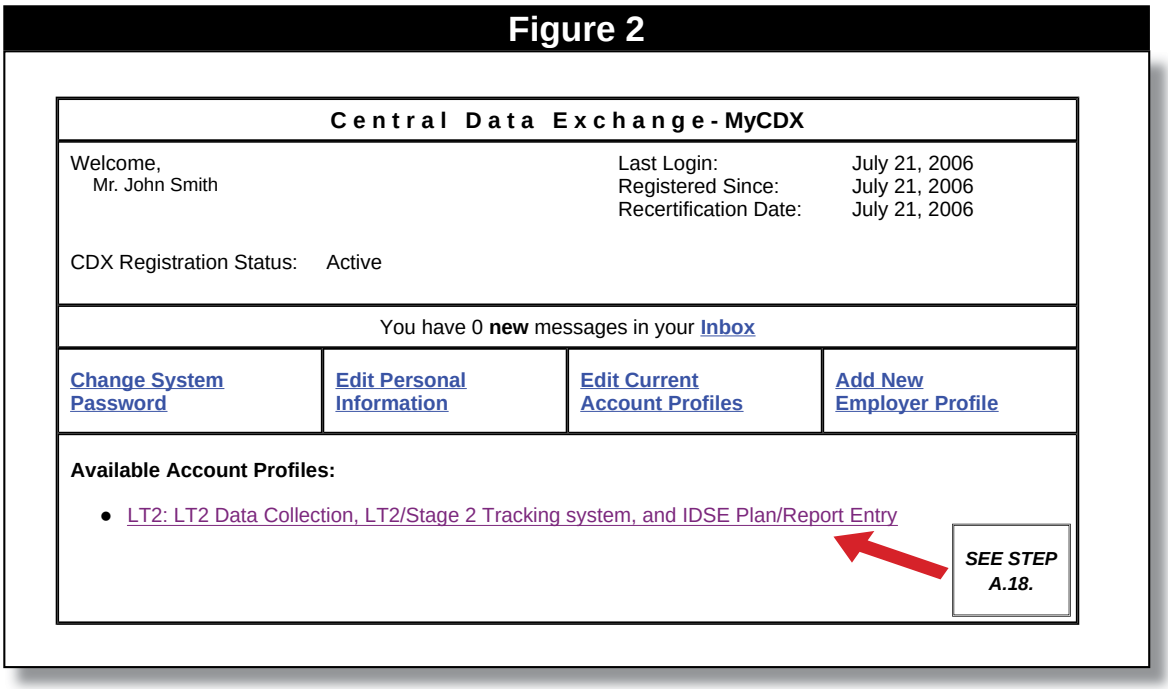
A.9. Re-enter the password

A.10. Input a secret question and answer – This will be used by the Help Desk to authenticate you if you forget your password

A.11. Click on "Next"

A.12. You should receive a message from "CDX Registration" [EPACDX@csc.com] within 24 hours of submitting your request. Once you have received the e-mail confirming your set-up, you can log into the DCTS.

Figure 2



Logging into the Data Collection and Tracking System (DCTS)

Once you have received the e-mail confirming your set-up, you can log into the DCTS.

A.13. Go to: http://www.epa.gov/cdx

A.14. Click on “Log-in to CDX” (on sidebar) – New screen will appear

A.15. Input your user name – This is the user name created for you when you originally logged in with your CRK (see Step A.7.)

A.16. Input your password

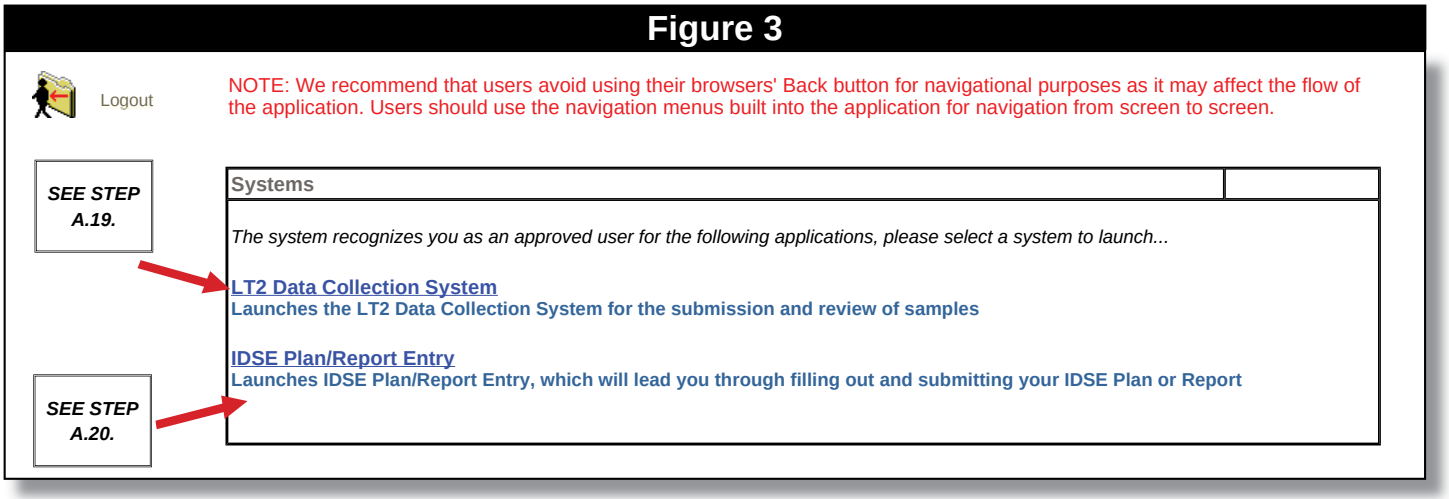
A.17. Click on “Login” – New screen will appear

A.18. Click on the long link “LT2: LT2 Data Collection, LT2/Stage 2 Tracking system, and IDSE Plan/Report Entry” program (see Figure 2). New window will appear

A.19. To open data system related to submission and review of samples for compliance with the LT2 Rule click on LT2 Data Collection System (see Figure 3)

A.20. To open data system related to submission of your IDSE Plan or IDSE Report for compliance with the Stage 2 Rule click on IDSE Plan/Report Entry (see Figure 3)

Figure 3



B. Step-by-Step Registration for DCTS using CDX (Steps B.1. - B.18. need to be completed for registration. Once the password is setup, go to B.19.)

B.1. Go to: http://www.epa.gov/cdx

B.2. Click on “Log-in to CDX” (on sidebar) – New screen will appear

B.3. Click on “Registration” (on sidebar) – New screen will appear

B.4. Read the Warning Notice and Privacy Statements

B.5. Click on “Click here to continue” – New screen will appear

B.6. Read the Terms and Conditions and click on “I Accept” – New screen will appear

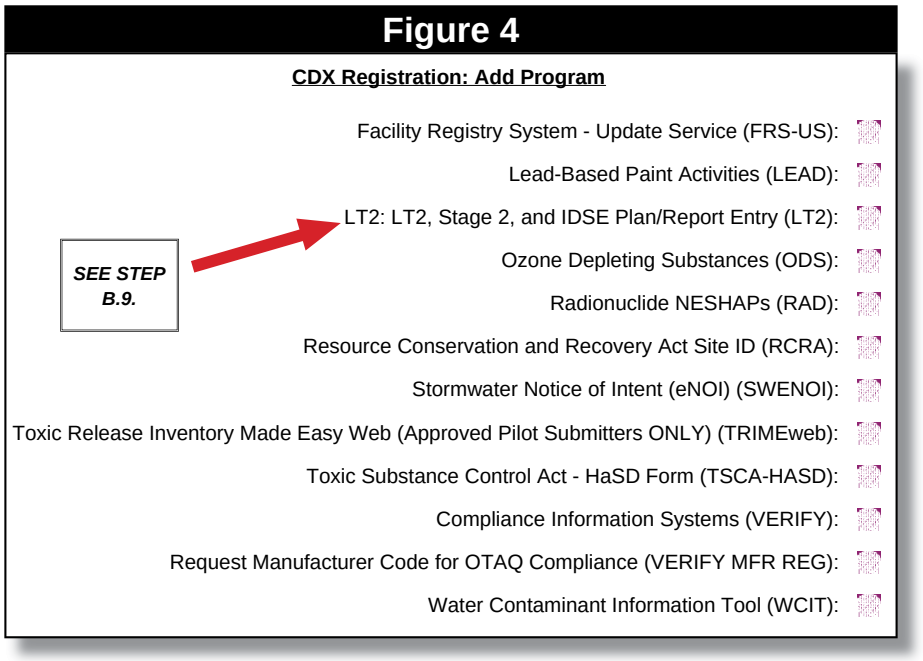
B.7. Input a user’s first and last name, user name (following recommended format), password (following recommended format) and re-enter the password, a question that can be used in case you forget your password, and the answer to the question – New screen will appear

B.8. Input the water system’s name in the Organization Name field and all other requested information. Click on “Next” - New screen will appear

CDX Registration: Add Program

B.9. Select “LT2: LT2, Stage 2, and IDSE Plan/Report Entry (LT2)” (see Figure 4).

Figure 4



B.10. Click on “Next” – New screen will appear

Complete Role Information –

B.11. Role is “Asubmitter” only option

B.12. Select “Standard” (This is CDX. This is not where you request DCTS Admin access.)

B.13. Input your water system’s federal PWSID (i.e., WA5312345) in the ID field. If you don’t know your PWSID please send an e-mail to stage2mdbp@epa.gov.

B.14. Submission method is “WEBFORM” (only option)

B.15. Click on “Next”

B.16. Read the message

B.17. Click on “Finished”

B.18. You should receive confirmation from “CDX Registration” [EPACDX@csc.com] within 24 hours of submitting your request. Once you have received the e-mail confirming your CDX set-up, you can log into the DCTS.

Logging into the Data Collection and Tracking System (DCTS)

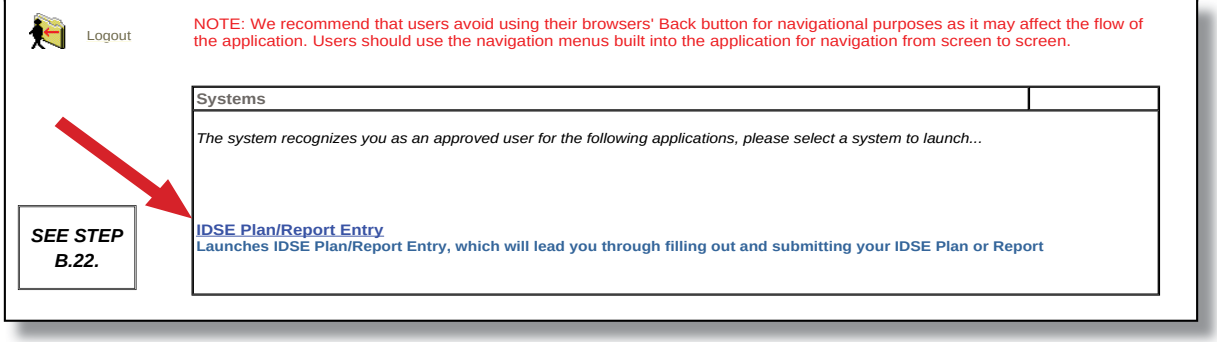
B.19. Follow steps B.1. and B.2.

B.20. Input your user name and password – This is the user name you choose for yourself when setting up your CDX account (see Step B.7.). Click “Login” - New screen will appear

B.21. Click “LT2: LT2 Data Collection, LT2/Stage 2 Tracking system, and IDSE Plan/Report Entry” program (see Figure 2) - New window will appear

B.22. To submit your IDSE Plan electronically for compliance with the Stage 2 Rule click on IDSE Plan/Report Entry (see Figure 5). This is the final registration step for DCTS users that need to comply with the Stage 2 requirements for only one water system.

Figure 5



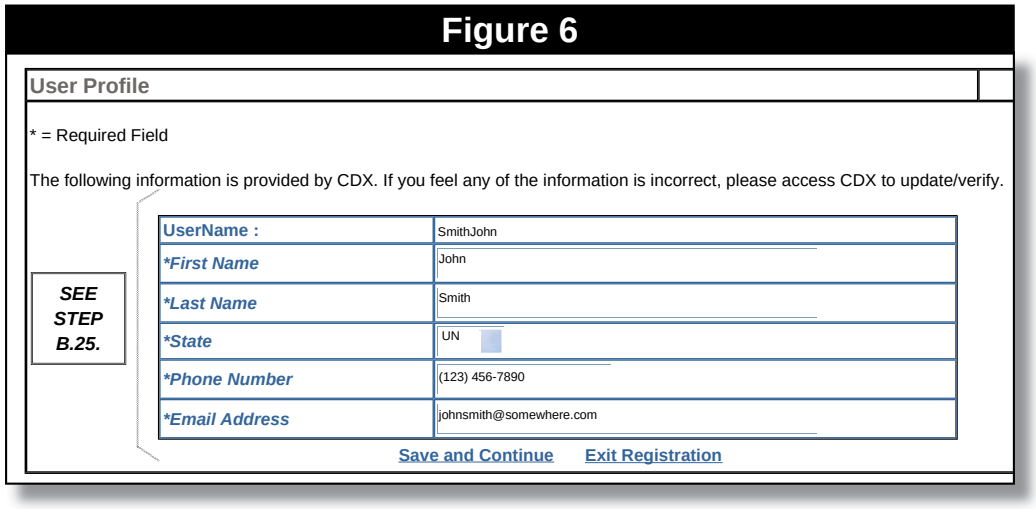
If you need access to multiple systems to complete multiple IDSE plans/reports or if you need to comply with the LT2 requirements, you must request access to the LT2 Data Collection System. To obtain access to the LT2 Data Collection System you must contact your system's DCTS administrator. If you do not know your system's DCTS administrator, e-mail your system's PWSID, water system name, and CDX user name to stage2mdbp@epa.gov.

B.23. Once access is granted to the LT2 Data Collection System please click on the LT2 Data Collection System link that will appear above the IDSE Plan/Report Entry link (see Figure 3)

B.24. Click on the "User Profile" icon

B.25. Update information for First Name, Last Name, State, Phone Number, or E-mail Address if any are incorrect (see Figure 6)

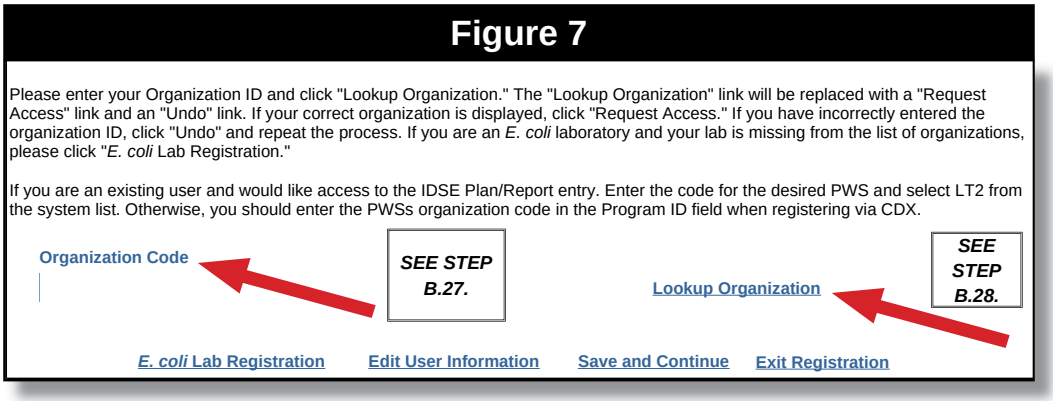
Figure 6



B.26. Click on "Save and Continue"

B.27. Input your water system's federal PWSID (i.e., WA5312345) in the Organization Code field (see Figure 7)

Figure 7



B.28. Click on "Lookup Organization" (see Figure 7)

B.29. A new field "System Type" will appear; select "Both" (even if you only need access to one of the rules)

B.30. Click on "Request Access"

B.31. Click on "Save and Continue"

B.32. If you need to request access to additional systems, repeat steps B.27. through B.31. Once you are finished, click on "Exit Registration."

Once your user name has been authenticated by the DCTS administrator for your system, you will be granted access to the data system for these additional system(s).

User's Guide for the LT2/Stage 2 Tracking System

May 26, 2006

Prepared for

United States Environmental Protection Agency

Office of Water (4607)

http://www.epa.gov/safewater/disinfection/stage2/index.html

May 2006

Authorship

This User's Guide was prepared under the direction of EPA's Office of Water and was prepared by the CSC Biology Studies Group under General Services Administration Federal Supply Service Contract No. GS-10F-0135K.

Purpose

The purpose of this guidance manual is solely to provide technical information for users of the LT2/Stage 2 Data Tracking System. This guidance is not a substitute for applicable legal requirements, nor is it a regulation itself. Thus, it does not impose legally-binding requirements on any party, including EPA, states, or the regulated community. Interested parties are free to raise questions and objections to the guidance and the appropriateness of using it in a particular situation. Although this manual describes many methods for complying with IDSE requirements, the guidance presented here may not be appropriate for all situations, and alternative approaches may provide satisfactory performance. The mention of trade names or commercial products does not constitute endorsement or recommendation for use.

This User's Guide is available for download in Adobe Acrobat (.pdf) format on the Web at http://www.epa.gov/safewater/disinfection/stage2/index.html.

Table of Contents

Table of Appendices

List of Figures

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Section 1. Introduction

Welcome to the *User's Guide for the LT2/Stage 2 Tracking System*. This document is intended to provide guidance to state and EPA officials on the various functions of the LT2/Stage 2 Tracking System, which has been developed to coexist with the Long Term 2 Enhanced Surface Water Treatment Rule (LT2 rule) System (also referred to as the "LT2 Data Collection System" or simply "LT2").

The Stage 2 Disinfectants and Disinfection Byproducts Rule (DBPR) is one part of the Stage 2 Microbial and Disinfection Byproducts Rules (M-DBP), which are a set of interrelated regulations that address risks from microbial pathogens and disinfectants/disinfection byproducts (D/DBPs). The Stage 2 M-DBP Rules are the final phase in the M-DBP rulemaking strategy, affirmed by Congress as part of the 1996 Amendments to the Safe Drinking Water Act (SDWA).

In addition to the Stage 2 DBPR, the Stage 2 M-DBP Rules include the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR), which focuses on microbial pathogens. To balance risks associated with the control of pathogens and limiting exposure to DBPs, the Stage 2 DBPR and LT2ESWTR are being developed simultaneously.

Additional information and updates on the Stage 2 DBPR are available on the Web at http://www.epa.gov/safewater/disinfection/stage2/index.html.

If you have additional questions not addressed by this Guide, email LT2 Technical Support at LT2@csc.com, or contact the LT2/Stage 2 Data Collection and Tracking System user support at (888)-582-0020.

1.1 Organization of User's Guide

This User's Guide provides guidance on the following aspects of the LT2/Stage 2 Tracking System:

- **Section 1** - Provides an overview of the rule and User's Guide organization. It includes background information on the Stage 2 rule, the LT2/Stage 2 Tracking System, and the various user roles.
- **Section 2** - Provides details on the system requirements, process for connecting to the LT2/Stage 2 Tracking System, the Administrative User's role, the login process, new user registration, how to access help, and the logout procedure.
- **Section 3** - Provides State and EPA User details.
- **Section 4** - Provides legal and security considerations when using the LT2/Stage 2 Tracking System.
- **Appendix A** - Addresses Frequently Asked Questions.

1.2 About the LT2/Stage 2 Tracking System

The LT2/Stage 2 Tracking System is a web-based system designed for state and EPA staff to use during the implementation of the Stage 2 DBPR and the Initial Distribution System Evaluation (IDSE). The LT2/Stage 2 Tracking System identifies affected Public Water Systems (PWSs) and provides communication regarding the systems' Stage 2 and LT2 rule requirements.

The LT2/Stage 2 Tracking System also provides a method for updating detailed information for a PWS for data management purposes. It allows state or EPA staff to view detailed information for a PWS,

determine the PWS' Stage 2 and LT2 rule requirements and determine the PWS' compliance group. The LT2/Stage 2 Tracking System provides a tracking mechanism to review a PWS' submitted IDSE Plan and/or Report. The tracking portion of the LT2/Stage 2 Tracking System also provides state and EPA staff with a method of assigning reviewers, classifying a review, and tracking the progress of the IDSE Plan and/or Report.

Below is a brief summary of the LT2/Stage 2 Tracking System functions:

- Access lists of PWSs limited by search specifications in order to view detailed lists of PWSs that have the same specifications, such as Compliance Group, State, Combined Distribution System (CDS) ID, and more;
- View detailed information on a PWS, including Stage 2 and LT2 rule requirements, compliance schedule, and contact information;
- View, enter, and track notifications sent to PWSs regarding the Stage 2 DBPR or the IDSE.
- Access, edit, and add contacts for a PWS;
- View reports of PWSs according to Compliance Group, CDS ID, Notifications Sent, and IDSE Plans and Reports;
- Review/approve IDSE Plans and Reports;
- Track the receipt of all IDSE submissions; and
- Track the approval status of the following:
  - Standard Monitoring Plans
  - System Specific Study Plans
  - IDSE Reports
  - 40/30 Certifications
  - Very Small System Waivers

1.3 User Roles

Two different user roles will access the LT2/Stage 2 Tracking System:

- **State User:** May view information for PWSs within their state lines.
- **EPA User:** May view and update information for all PWSs in the system.

Note: User administration functions for the LT2/Stage 2 Tracking System are executed through the LT2 Data Collection System.

Section 2. Getting Started

This section provides instructions for connecting to the LT2/Stage 2 Tracking System, the login process, new user registration information, accessing help, and logging out.

2.1 System Requirements

The LT2/Stage 2 Tracking System was designed to be accessible from most personal computers (PCs) with an Internet connection. Ensure that you have the following before using the LT2/Stage 2 Tracking System:

- PC with 486 MHz processor or better; Pentium is recommended;
- One of the following Microsoft Platforms: Windows 95; 98; 2000; XP; or NT;
- Web Browser: Microsoft Internet Explorer (IE), version 5.5 or above; or Netscape Navigator; version 4.0 or above, with 128-bit encryption; and,
- Internet access; high-speed connection is recommended.

Note: If you have Internet Explorer 6.0 or above, verify that your browser has the following settings selected: Click on TOOLS and select "Internet Options". Click on the "SECURITY" tab. Click on the "CUSTOM LEVEL…" button. Scroll down to "Microsoft VM," and change the Java Permissions by selecting the "Low Safety" radio button. Scroll down to "Miscellaneous", and change the "Access Data Across Domains" to enable. Repeat with "Allow Meta Refresh" and "Display mixed content."

No additional hardware, software, or tools should be needed.

2.2 Connecting to the LT2/Stage 2 Tracking System

The LT2/Stage 2 Tracking System is accessed via the CDX. To access the LT2/Stage 2 Tracking System, perform the following steps:

- Open your Web browser connected to the Internet.
- Open the CDX home page available on the Web at https://cdx.epa.gov/SSL/cdx/login.asp.
- Read and acknowledge the warning notice and privacy statement
- Log in with your user name and password (shown in **Figure 2-1**)
- Select the LT2: LT2/Stage 2, and IDSE Plan/Report Entry link (shown in **Figure 2-2**)

Figure 2-1. Login Screen

Figure 2-2. CDX Select Application Screen

- CDX will now redirect you to the LT2/Stage 2 Tracking System, which will open in a new window, once there the Select Application screen is displayed as shown in **Figure 2-3**.
- Click on the "LT2/STAGE 2 TRACKING SYSTEM" link to access the LT2/Stage 2 Tracking System.

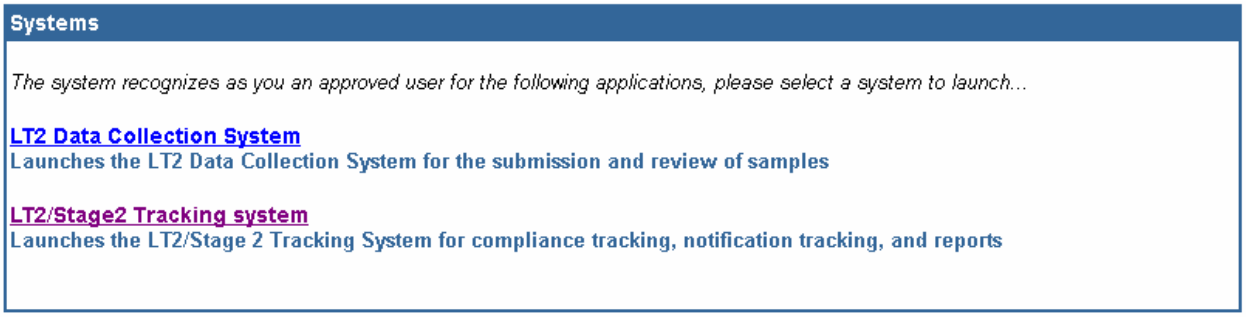


Figure 2-3. Systems Screen

2.2.1 New User Registration

The LT2/Stage 2 Tracking System utilizes EPA's CDX as its authentication mechanism. Users will first have to register for access via CDX before they are able to access the LT2/Stage 2 Tracking System. To request access to the LT2/Stage 2 Tracking System, perform the following steps:

- Open your Web browser connected to the Internet.
- Open the CDX home page available on the Web at https://cdx.epa.gov/SSL/cdx/login.asp.
- Read and acknowledge the warning notice and privacy statement
- Access the registration pages and create your user profile by submitting the following user information:
    - Name (including first and last name, with prefix, middle initial, and suffix being optional)
    - User Name
    - Password (with a second entry of the password for confirmation
    - Organization (including name, address, city, state, zip code, and country)
    - Phone Number
    - E-mail Address
    - Secret question and answer
- Select the LT2: LT2/Stage 2, and IDSE Plan/Report Entry from the list of available applications
- EPA will review your registration information and confirm that you are eligible for access to the LT2/Stage 2 Tracking System
- Once your eligibility to access the system is confirmed you will receive an email from CDX granting you access to the system.

After you have been notified of your access to CDX you will need to complete your registration process within the LT2/Stage2 Tracking system. To do this please following the steps below:

- Open your Web browser connected to the Internet.
- Open the CDX home page available on the Web at https://cdx.epa.gov/SSL/cdx/login.asp.

- Select the LT2: LT2/Stage 2, and IDSE Plan/Report Entry link. (shown in **Figure 2-2**)
- Verify the user profile information displayed, select your State, and click Save and Continue.(shown in **Figure 2-4**)

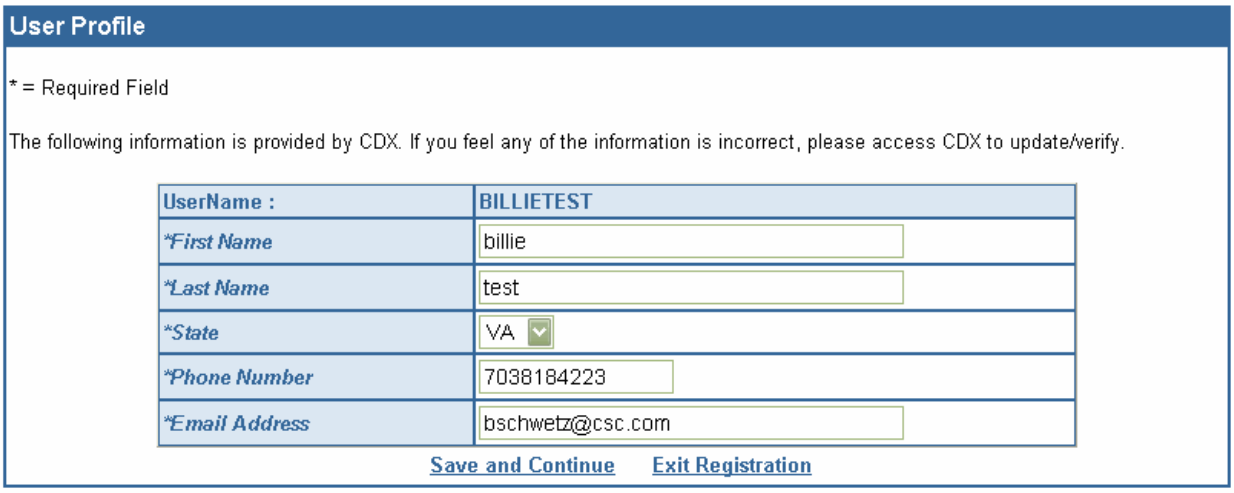


Figure 2-4. LT2 New User Registration Screen –

After completing your contact information, you will be prompted to enter the organization ID(s) for the organization(s) you represent. To request access to an organization, enter the organization ID and click "LOOKUP ORGANIZATION". **Figure 2-5** provides an example of the "LT2 New User Registration Organization Identification" screen. If a valid organization ID was entered, the page will refresh and display the corresponding organization name. Verify this information, select "Stage2" or "Both" from the system dropdown to indicate which system you would like to request access to and click "REQUEST ACCESS". The organization you requested will be added to the list of organizations you represent.

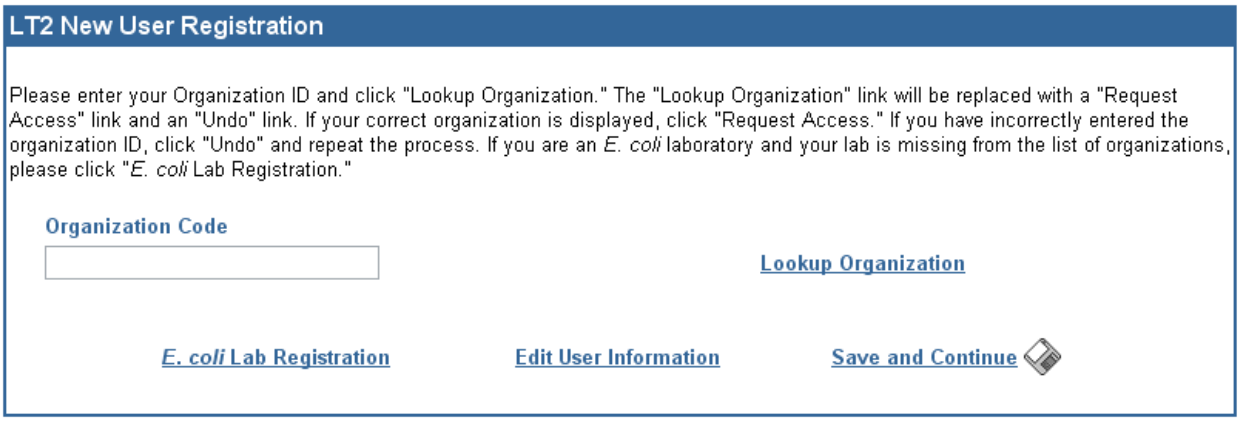


Figure 2-5. LT2 New User Registration Organization Identification Screen

LT2/Stage 2 is limited to EPA and State users only. Users may only enter one organization for Stage 2. The system will confirm registration in the top section of the form. After you have requested access to the necessary organization, click "SAVE AND CONTINUE" at the bottom of the screen. A new screen will open, detailing the information you provided to the LT2 Data Collection System. If any information is incorrect, you may return to the previous screens by clicking the appropriate link at the bottom of the summary screen, as seen in **Figure 2-6**.

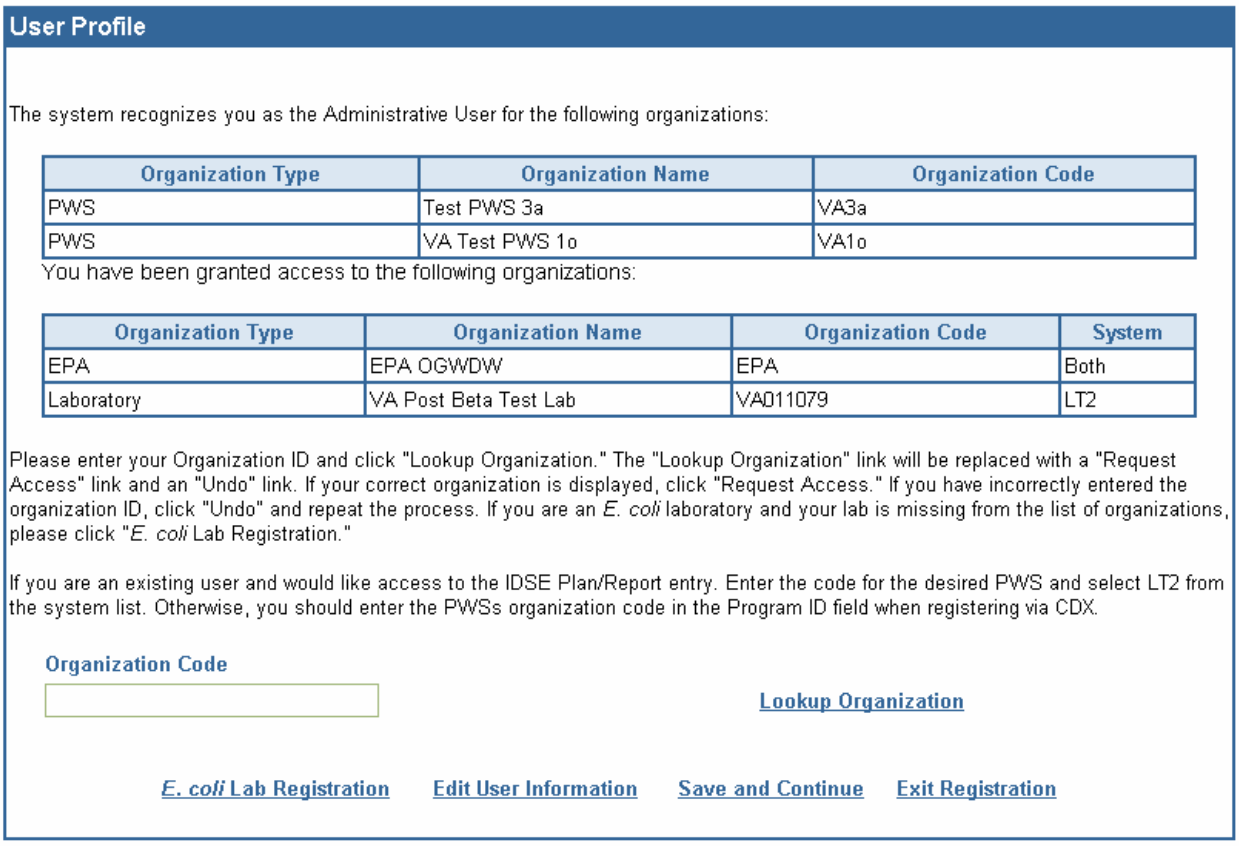


Figure 2-6. LT2 New User Registration Organization Identification Information Screen

2.3 Updating User-Specific Information

After you have registered with the system, you can view your personal contact information by clicking on the "USER PROFILE" link on the navigational toolbar at the left-hand side of the screen. You will be able to verify your contact information and select your state. To update your contact information, go to your MyCDX page. **Figure 2-7** provides an example of the "User Profile" screen for data review and entry.

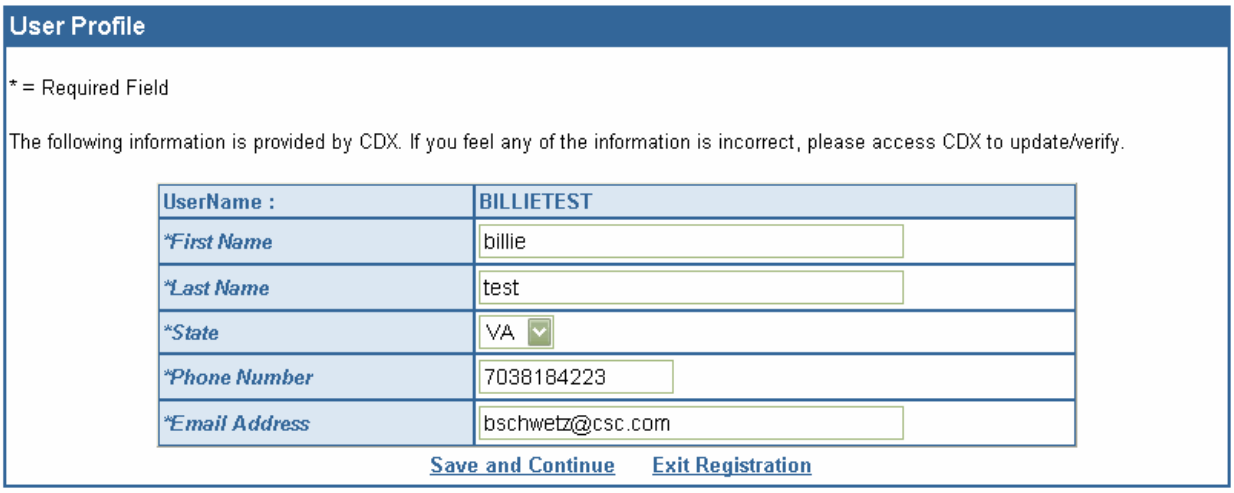
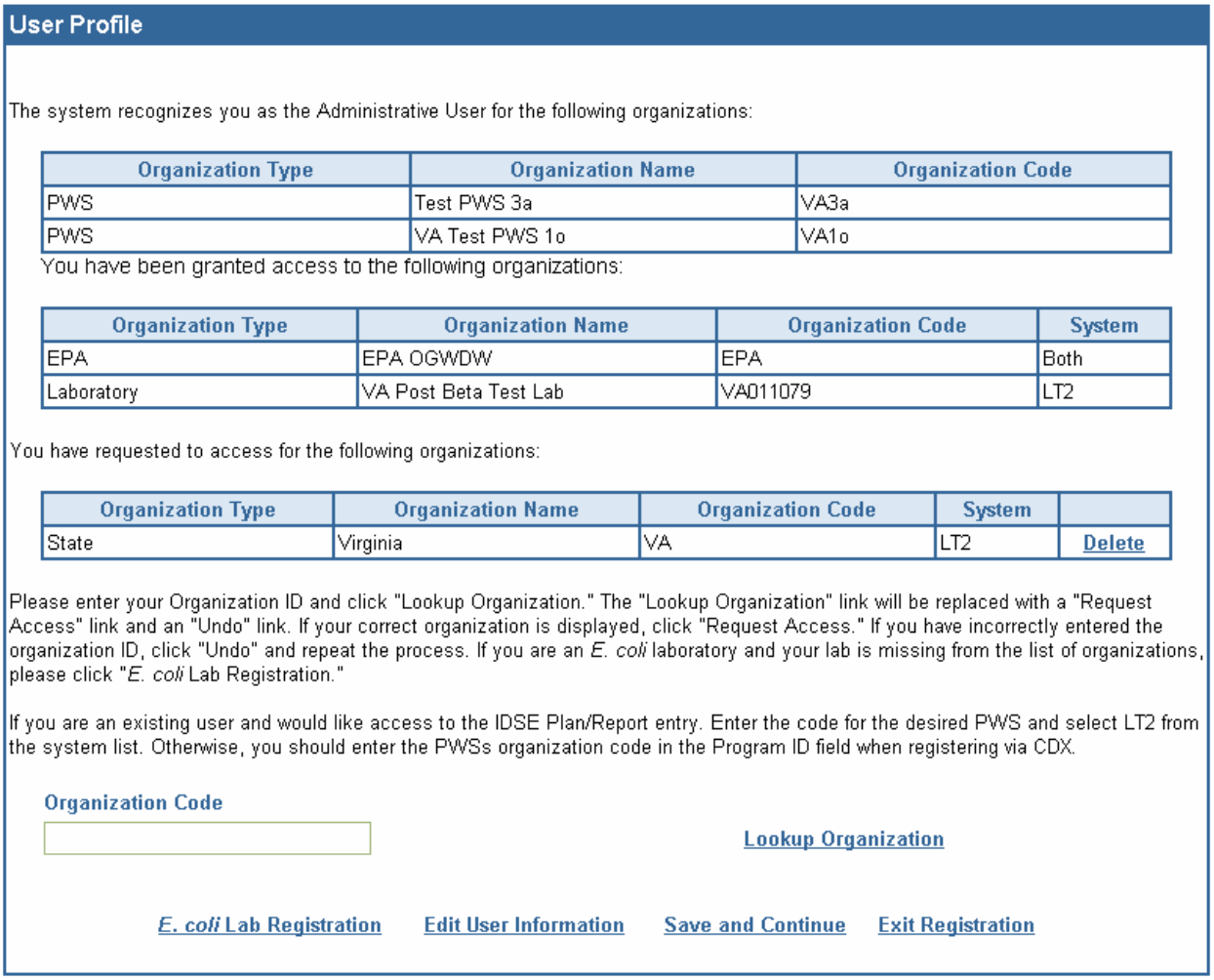


Figure 2-7. User Profile Screen –

After you have selected your state, click the "SAVE AND CONTINUE" link to proceed to the next section and edit your organization information. The system will confirm registration to previously selected organizations listed at the top of the screen. If you would like to remove any organizations from this list, click the corresponding "DELETE" button.

To request access to a new organization, enter the organization ID and click the "LOOKUP ORGANIZATION" link. If a valid organization ID was entered, the page will refresh displaying the corresponding organization name. Verify this information and click the "REQUEST ACCESS" link to add the selected organization to the list of organizations you represent. If you have incorrectly entered the organization ID, click "UNDO" to repeat the process. You may repeat the process until all of the organizations you represent have been entered. **Figure 2-8** provides an example of the "User Profile Organization Identification" screen.



User Profile

The system recognizes you as the Administrative User for the following organizations:

Organization Type	Organization Name	Organization Code
PWS	Test PWS 3a	VA3a
PWS	VA Test PWS 1o	VA1o

You have been granted access to the following organizations:

Organization Type	Organization Name	Organization Code	System
EPA	EPA OGWDW	EPA	Both
Laboratory	VA Post Beta Test Lab	VA011079	LT2

You have requested to access for the following organizations:

Organization Type	Organization Name	Organization Code	System	
State	Virginia	VA	LT2	Delete

Please enter your Organization ID and click "Lookup Organization." The "Lookup Organization" link will be replaced with a "Request Access" link and an "Undo" link. If your correct organization is displayed, click "Request Access." If you have incorrectly entered the organization ID, click "Undo" and repeat the process. If you are an *E. coli* laboratory and your lab is missing from the list of organizations, please click "*E. coli* Lab Registration."

If you are an existing user and would like access to the IDSE Plan/Report entry. Enter the code for the desired PWS and select LT2 from the system list. Otherwise, you should enter the PWSs organization code in the Program ID field when registering via CDX.

Organization Code

Lookup Organization

E. coli Lab Registration Edit User Information Save and Continue Exit Registration

Figure 2-8. User Profile Organization Identification Screen

After you have requested access to the necessary organization(s), click the "SAVE AND CONTINUE" link at the bottom of the screen, a summary of the information you submitted to the system will be provided. If any information is incorrect, you may return to the previous screens by clicking the appropriate link at the bottom of the summary screen.

2.4 Navigation Toolbar

Upon successful login, a navigation toolbar will appear on the left-hand side of each page of the system that will allow you to quickly select the function you wish to access. Examples of the navigation toolbars are provided in **Figure 2-9**. A detailed explanation of each toolbar item is provided in Section 3, which specifically addresses the EPA and State roles.

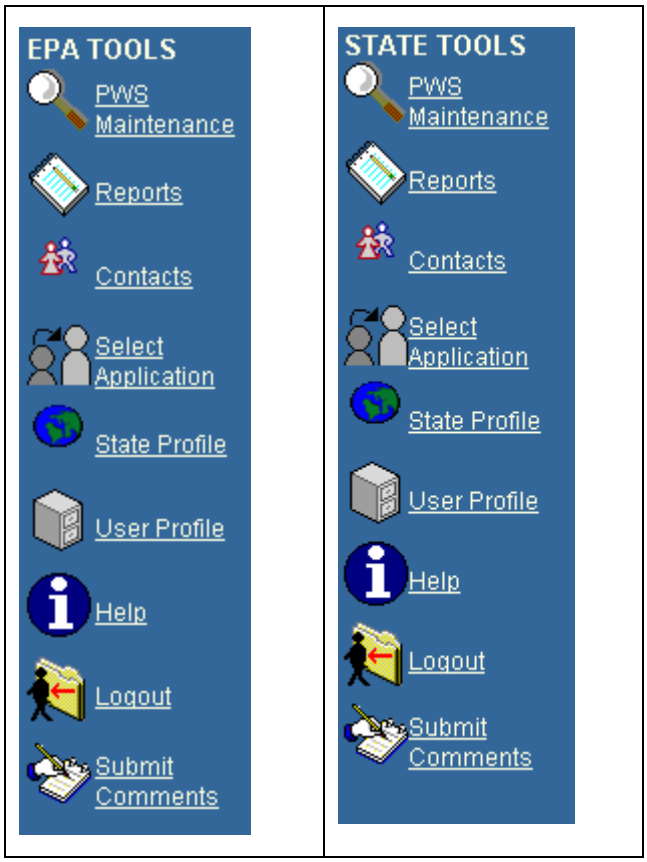


Figure 2-9. EPA and State Toolbars

2.5 Help

The Help module of the LT2/Stage 2 Tracking System is designed to provide you with a set of instructions relevant to the screen on which you are currently working. The Help module will appear in a new window to enable you to view both the LT2/Stage 2 Tracking System and the help text simultaneously. An example of the "Help" screen is included in **Figure 2-10**.

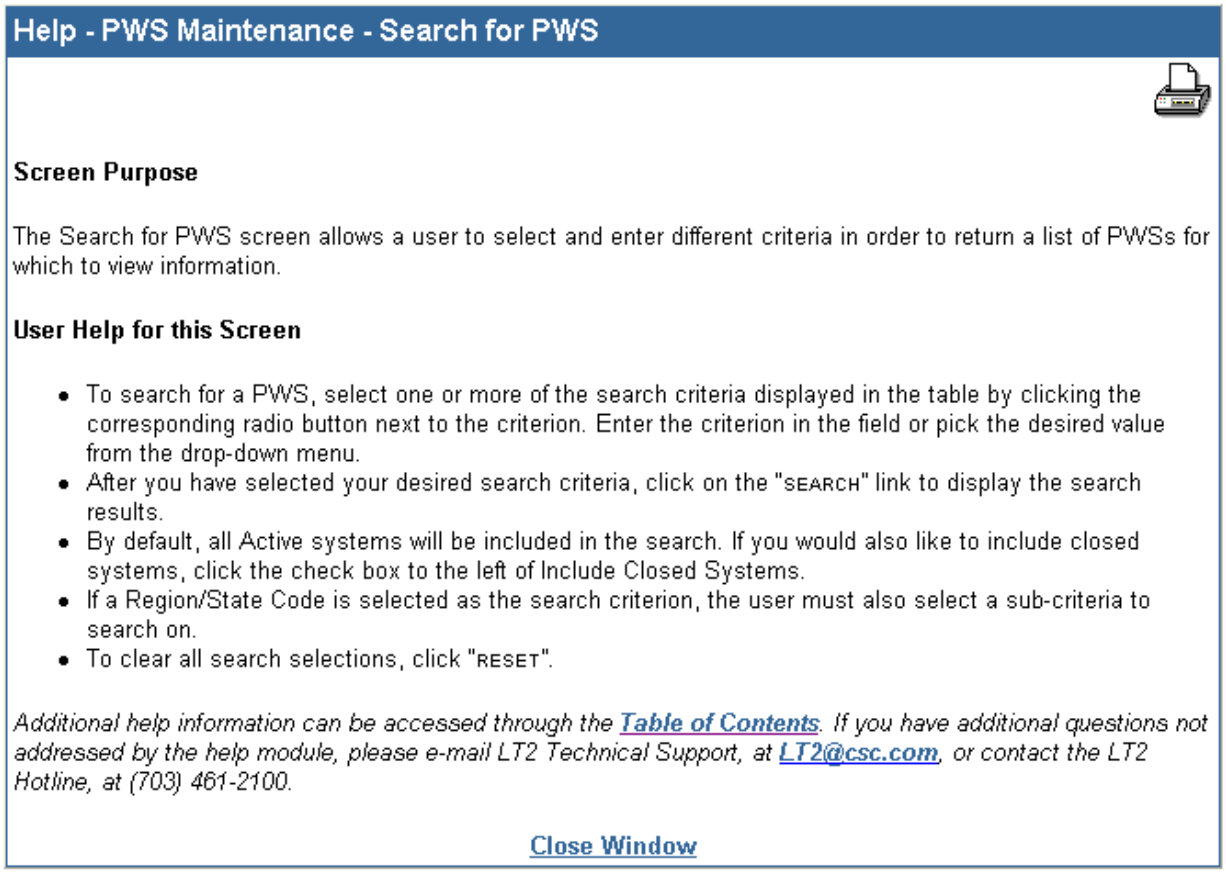


Figure 2-10. Example Help Screen

You can receive general LT2/Stage 2 Tracking System help tips by selecting the "GENERAL HELP TIPS FOR ALL USERS" link on the Table of Contents.

Detailed help text screens are outlined in the following section.

2.5.1 EPA and State User Specific Help Screens

The following help screens are available to the LT2/Stage 2 Tracking System User:

- PWS Maintenance - Search for PWS

- Search Results
  - PWS Profile
  - View Contacts
    - View Contacts / Contact List
    - View Contact Information
    - Edit / Create New Contact
  - View Notifications
    - PWS Notification Records
    - Add / Edit Notification Records
  - View Submissions
    - Submission Status
    - Upload Files
  - PWS Batch Update
  - PWS Notification Batch Update
  - PWS Batch Submissions
- Reports
  - Report Selection
  - Compliance Groups
  - CDS Information
  - IDSE Information
  - Notification Information
- Compliance Schedule (EPA Users only)
- State Profile
- Contacts
  - Official Contact List
  - View Contacts / Contact List
  - View Contract Information
  - Edit / Create New Contact
- Submit Comments
- New User Registration
  - Contact Information, User Name and Password, Secret Question and Answer
  - Associate Organizations
  - Confirmation
- User Profile
  - Update Contact Information
  - Update Associated Organizations

2.6 Logout

You will be logged out of the LT2/Stage 2 Tracking System upon selecting the logout option from the navigation toolbar. You must repeat the login process to regain access to the LT2/Stage 2 Tracking System through CDX. There is also an automatic time-out function built into the database that logs you out after 30 minutes of system inactivity.

Section 3. EPA and State Users

This section provides screen-specific instructions for EPA and State Users. The basic EPA and State User capabilities are similar and displayed in **Figure 3-1**.

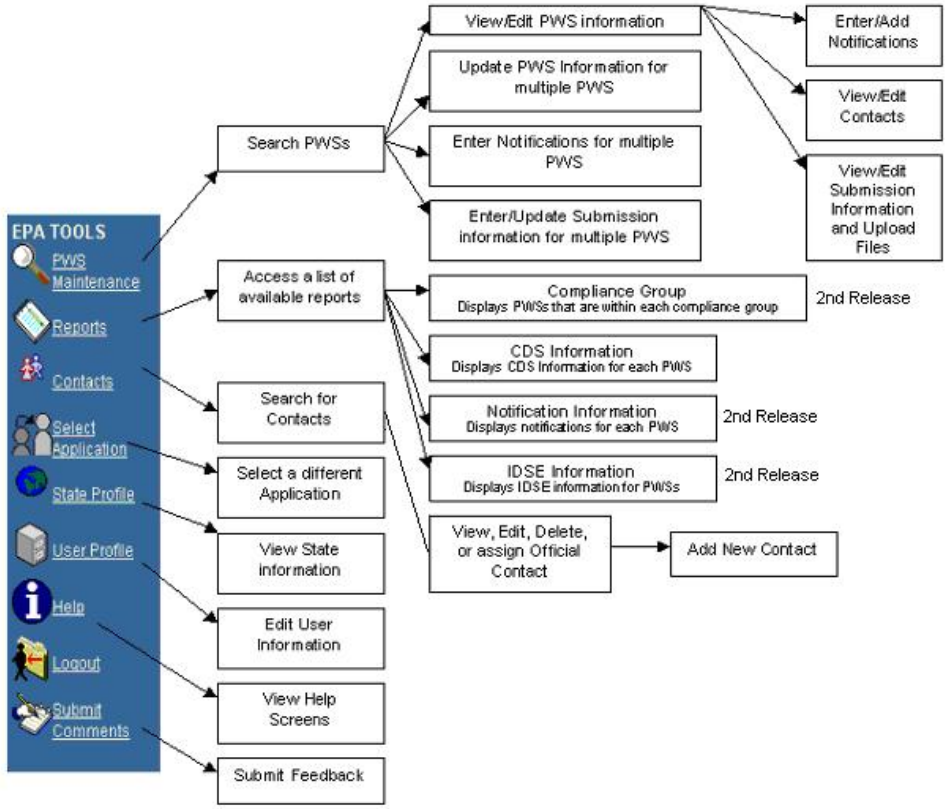


Figure 3-1. EPA/State User Basic Work Flow

All EPA and State functions described in this section are initiated by logging into CDX and accessing the LT2/Stage2 Status Tracking System link, available on the Web at https://cdx.epa.gov/. The LT2/Stage 2 Tracking System displays a navigation toolbar on the left-hand side of the screen, from which you can select the appropriate link. When you log in to the LT2/Stage 2 Tracking System, the system will advance directly to the “Search for PWS” screen.

3.1 PWS Maintenance

The PWS Maintenance function provides screens that are used to view and/or edit information pertaining to a specific PWS or groups of PWSs.

3.1.1 Search for PWS

The "Search for PWS" screen allows a user to select and enter different criteria in order to return a list of PWS(s) for which you can view information. You can set search specifications for PWS Name, CDS ID, Letter Type, Notice Name, or Region/State Code. If Region/State Code is selected, you can further refine the search specifications by using the sub-criteria PWS ID, Compliance Schedule, PWS Plan Status - Submission Type, Plan/Report Type, Submission Status, Approval Status, Triage Decision, Stage 2 Rule Requirements, and LT2 Rule Requirements. You can also expand your search by selecting the Include Closed Systems option. **Figure 3-2** provides an example of the "Search for PWS" screen.

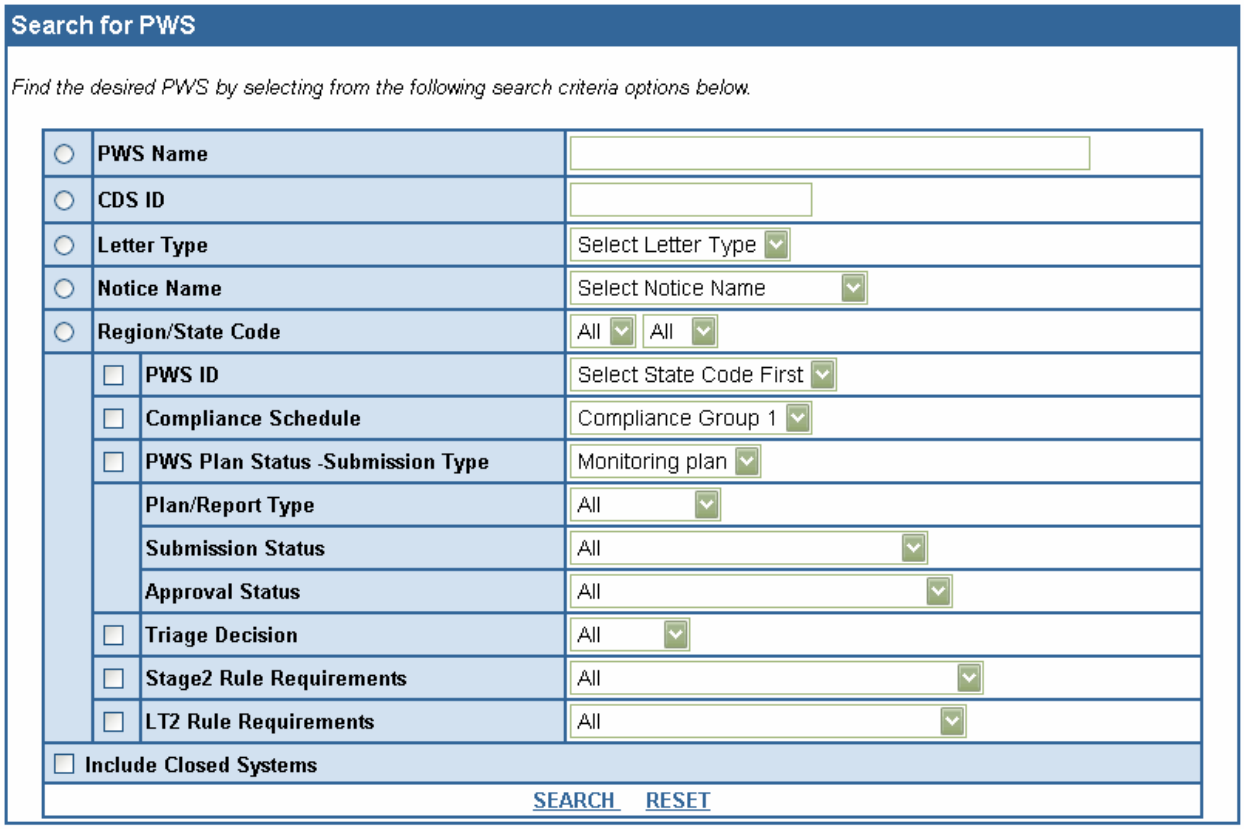


Figure 3-2. Search for PWS Screen

To search for PWSs, first, select the major search specification by clicking the radio button on the left-hand side of the screen. If Region/State Code is selected, the system will populate the second drop-down menu with the states within the selected Region. Select the appropriate information from the drop-down menu. To clear the selection specification entered, click on the "RESET" button.

Note: The Region selection allows the user to select all PWSs in an EPA Region by selecting 'All' in the second drop-down menu.

After you have entered the search specification, click on the "SEARCH" link to display the "Search for PWS - Results" screen.

3.1.2 Search for PWS - Results

The "Search for PWS - Results" screen displays a list of all PWSs that fit within the search specifications entered in the "Search for PWS" screen. Here users are able to access a PWS' profile, update information for multiple PWSs at a time, view notifications, enter notifications for multiple PWSs, and view submission status. Up to 25 PWSs may be viewed at one time. If more than 25 PWSs match the search specifications, navigation buttons will be displayed to permit the user to click through the rest of the data. There are buttons to move to the next set of 25 PWSs (>>), the last set of 25 PWSs (|>), the previous 25 PWSs (<<), and the first set of 25 PWSs (<|). **Figure 3-3** provides an example of the "Search for PWS - Results" screen.

The following links are provided to assist in screen navigation. To modify your search results, click the "MODIFY SEARCH" link located at the top of the screen. To start a new search, click the "PWS MAINTENANCE" link located in the left-hand navigation bar. To sort the results list, click the hyperlinked column name to sort the current set of 25 results by the column selected, in ascending order.

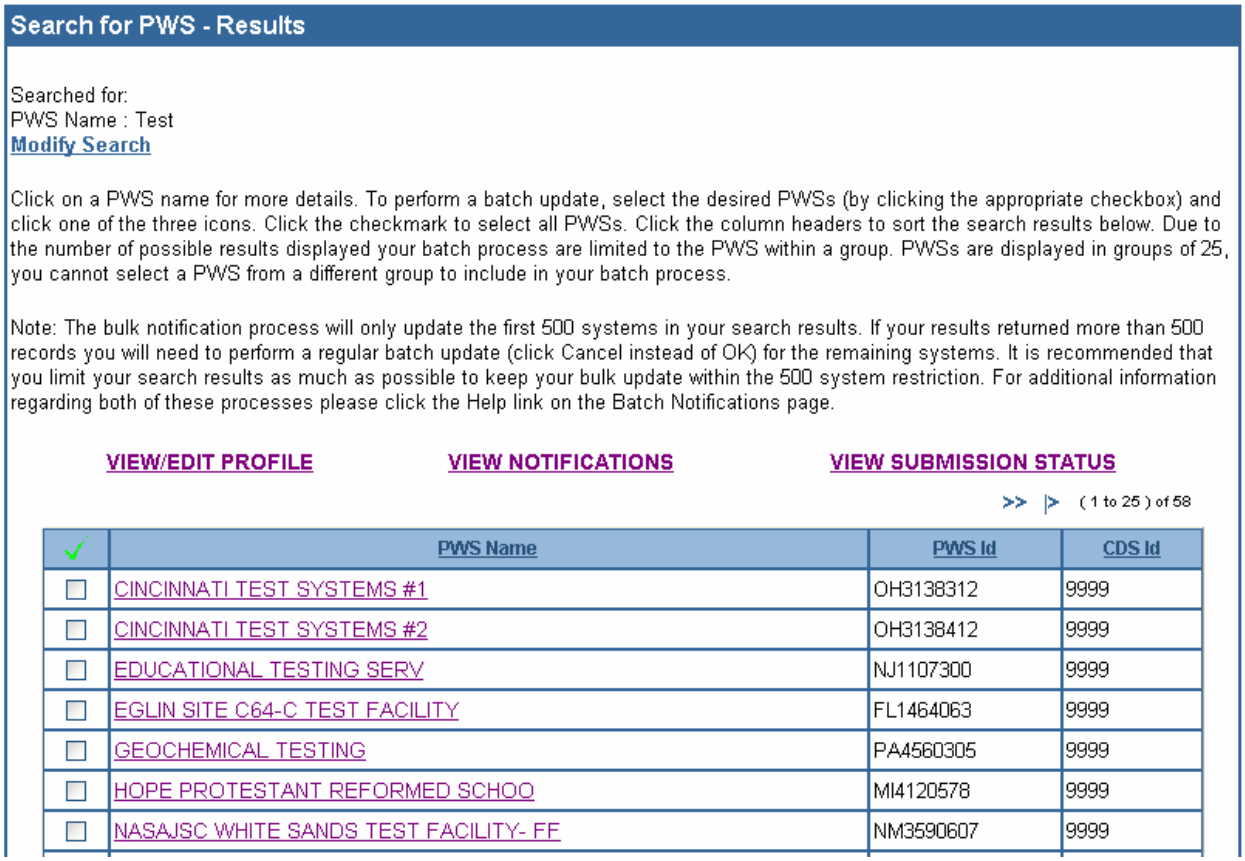


Figure 3-3. Search for PWS - Results Screen

State Users are limited to PWSs within their jurisdiction.

From the "Search for PWS - Results" screen, you can view or edit individual PWSs. To view an individual PWS Profile, click the hyperlinked PWS name, or select the check box to the left of the PWS Name, then click the "VIEW/EDIT PROFILE" link located above the results table. The procedure for editing an individual PWS Profile is described in Section 3.1.3, *PWS Profile*.

To view/add notifications for an individual PWS, select the check box to the left of the PWS Name and click the "VIEW NOTIFICATIONS" link located above the results table, then click Cancel. The procedure for adding a notification to a PWS is described in Section 3 1.7, *PWS Notification Records*.

For your convenience, the LT2/Stage 2 Tracking System allows you to update information for multiple PWSs at one time; this is referred to as a batch update. To select multiple PWSs for batch update, click the check box to the left of each PWS you would like to update.

Note: Clicking the green check box ☑ at the top of the check box column automatically selects all PWSs.

To batch update Retail Population, CDS ID, and PWS Type, for multiple PWSs at one time, click the "VIEW/EDIT PROFILE" located above the results table to access the "PWS Batch Update" screen. The procedure for performing these batch updates is described in Section 3.1.4, *PWS Batch Update*. To batch update notifications for multiple PWSs at one time, click the "VIEW NOTIFICATIONS" link located above the results table to access the "PWS Notification Batch Entry" screen. The procedure for performing these batch updates is described in Section 3.1.5, *PWS Notification Batch Entry*. To batch update or enter submission information for multiple PWSs at one time, click the "VIEW SUBMISSION STATUS" link located above the results table to access the "PWS Batch Submissions" screen. The procedure for performing these batch updates is described in Section 3.1.6, *PWS Batch Submissions*.

3.1.3 PWS Profile

The "PWS Profile" screen allows users to edit details for a particular PWS, and to change their Stage 2 or LT2 compliance groups and rule requirements. **Figure 3-4** provides an example of the "PWS Profile" screen.

The Stage 2 Calculated Compliance Group field is a calculated value, based on the population served by the PWS and their CDS ID. This value is recalculated when a change is made and saved in the details table.

The Stage 2 and LT2 Rule Requirements fields are calculated based on the PWSs Population, PWS Type, and Source Water type. This value is recalculated when a change is made and saved in the details table.

Existing information for each field is displayed as a value. To edit information, select a new value from the drop-down menu or enter a value in the text entry field. Click the "SAVE" link at the bottom of the details table to save your changes.

The user must ensure that a value exists for all required fields. Drop-down menus are provided for selections for the PWS Type and Source Water Type fields.

The following links are provided to assist in screen navigation. To view/add notifications for an individual PWS, click the "VIEW NOTIFICATIONS" link located at the top and bottom of the screen. To view/add contacts for an individual PWS, click the "VIEW CONTACTS" link located at the top and bottom of the screen. To return to your search results, click the "VIEW SEARCH RESULTS" link located at the top and bottom of the screen. To view/add a submission record or upload a file, click "VIEW SUBMISSIONS STATUS".

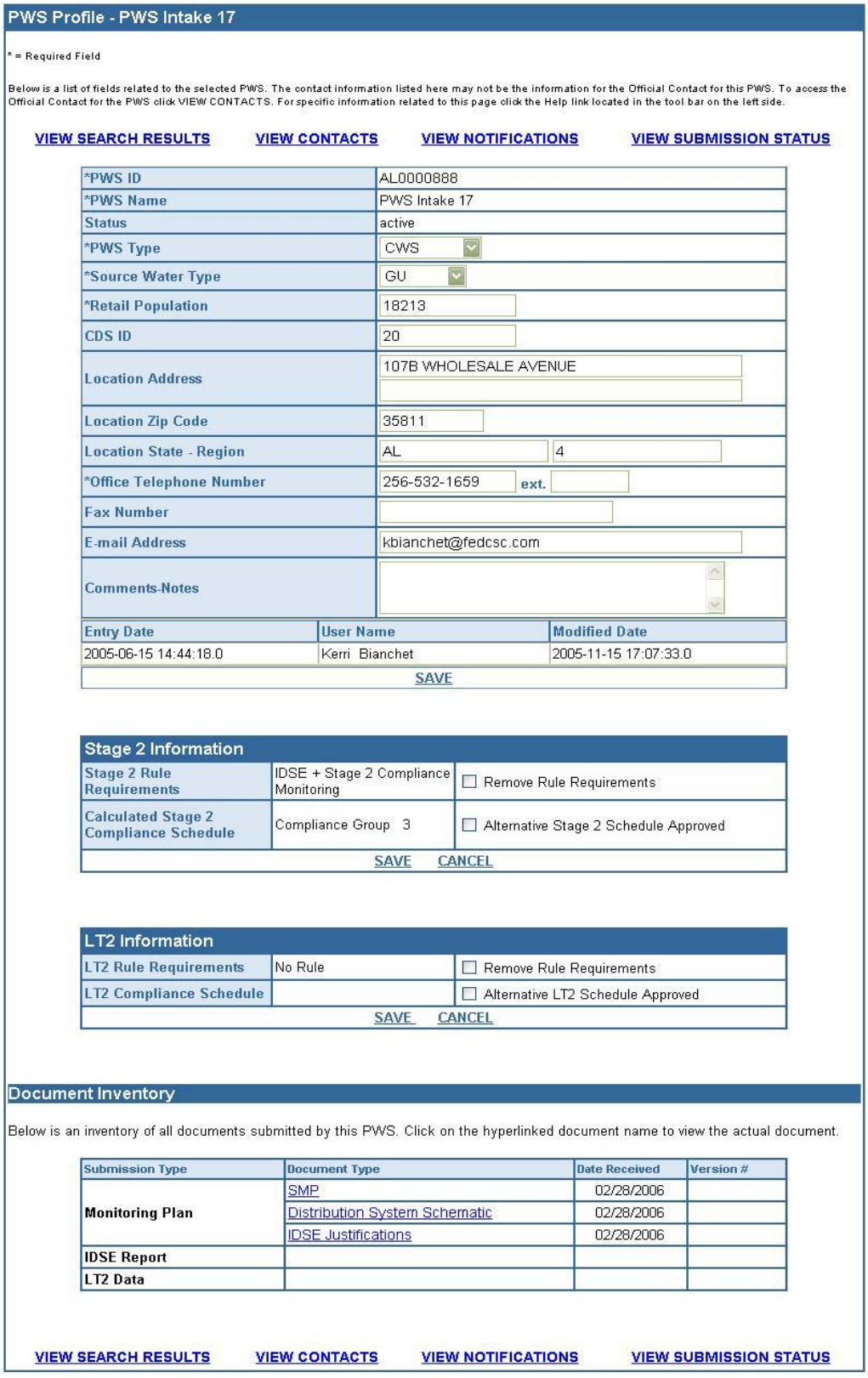


Figure 3-4. PWS Profile Screen

State Users will have not have access to PWSs that fall outside of their jurisdiction.

To remove Stage 2 and/or LT2 Rule Requirements, click the "Remove Rule Requirements" check box next to the appropriate section for Stage 2 or LT2. To reset the Stage 2 and/or LT2 Rule Requirements, uncheck the "Remove Rule Requirements" check box. This feature was designed to remove PWSs that have no requirements under the Stage 2 DBPR from the tracking features of the database, such as groundwater systems that do not disinfect or deliver water that has been disinfected with something other than UV light.

As mentioned above, the compliance schedules for each PWS is calculated according to the rule requirements based on population and combined distribution system connections (CDS ID). As necessary, an alternative compliance schedule can be set for PWSs. *Note: This does not change the requirements for that PWS under the Stage 2 DBPR.* If a system misses the compliance deadline for submitting an IDSE plan or report as required in the Stage 2 DBPR, the system will receive an M/R violation. Rather, this feature is intended for instances where it is necessary to track compliance for a PWS based on alternate dates. For example, if a PWS submits a 40/30 certification that is not approved by the State/EPA, that PWS will then be required to submit a standard monitoring plan or a system specific study plan. If the original compliance date for that PWS has already passed, the alternative schedule feature in the database could be used to set a date by which this PWS must submit the new plan. (In this instance, the PWS would not receive a violation if they submitted their 40/30 certification by their compliance date.) To set an Alternative Stage 2 Compliance Schedule, click the "Alternative Stage 2 Schedule Approved" check box. Additional fields will appear on the screen. Select the new schedule and enter comments regarding why the change in schedule was made. Click "SAVE" below the Stage 2 Information table to save your changes. If you select Custom as your alternative schedule, you will be required to enter a Plan Due Date and a Report Due Date for your new schedule.

WARNING: Once you select and save an alternative schedule, you will not be able to remove it. You may update the schedule at a later date, but you will always be assigned an alternative schedule. To return a PWS to their original compliance schedule, you will need to select the correct schedule from the drop down in the alternative schedule box.

To view a list of documents submitted by the PWS, scroll down to the Document Inventory portion of the PWS profile. To view a specific document, click the hyperlinked name in the Document Type column.

To set an Alternative LT2 Compliance Group, click the "Alternative LT2 Schedule Approved" check box. Additional fields will appear on the screen. Select the new schedule and enter comments regarding the change in schedule. Click "SAVE" below the information table to save your changes. *Note: This does not change the requirements for that PWS under the Stage 2 DBPR.* If a system misses the compliance deadline as required in the LT2ESWTR, the system will receive a violation.

3.1.4 PWS Batch Update

The "PWS Batch Update" screen allows users to update a select amount of PWS Profile information for multiple PWSs at one time. Existing information for each selected PWS is displayed in a table. Users may update a PWSs Retail Population, CDS ID, and/or PWS Type. **Figure 3-5** provides an example of the "PWS Batch Update" screen.

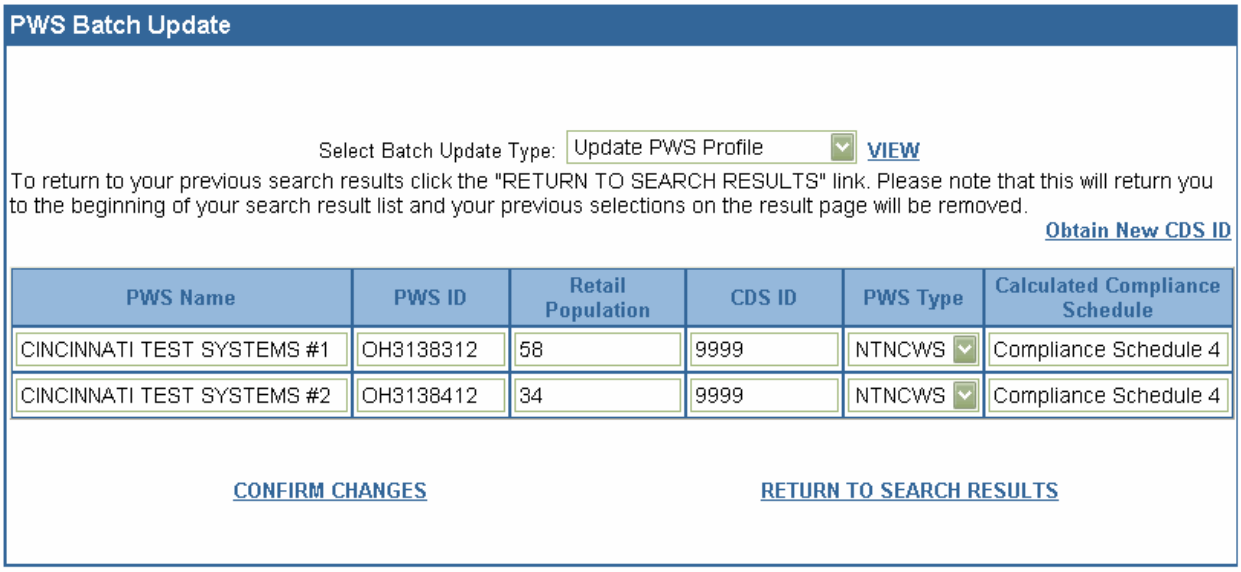


Figure 3-5. PWS Batch Update Screen

The following links are provided to assist in screen navigation. To perform a different batch update to the selected PWSs, select the type from the Select Batch Update Type drop-down menu and click "VIEW". To return to your search results, click the "RETURN TO SEARCH RESULTS" link located at the top and bottom of the screen.

To edit information, select or enter a new value for the appropriate field and PWS. Click the "CONFIRM CHANGES" link at the bottom of the details table to review a list of all changes. A "PWS Batch Update" confirmation screen will display. You can use this screen to edit the changes you have already made. **Figure 3-6** provides an example of the "PWS Batch Update" confirmation screen.

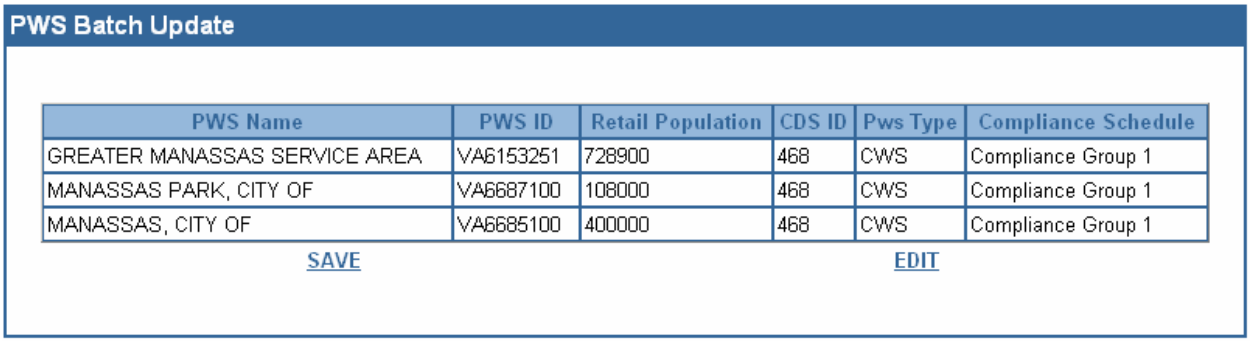


Figure 3-6. PWS Batch Update - Confirmation Screen

To edit your changes, click the "EDIT" link on the confirmation screen.

Once you have confirmed your changes on the confirmation screen, click the "SAVE" link to save your changes.

3.1.5 PWS Notification Batch Entry

The "PWS Notification Batch Entry" screen allows users to enter an existing or new notification for multiple PWSs at one time. Prior to accessing the batch entry screen users are provided with the option of doing a bulk update. Users will be presented with a question each time they access the View Notifications link. If you would like to perform a bulk batch notification that allows you to update up to 500 systems at a time, click OK. If you prefer to update the PWS(s) you selected, click Cancel. **Figure 3-7**

provides an example of the "Bulk Notification" question screen. **Figure 3-8** provides an example of the "PWS Notification Batch Entry" screen.

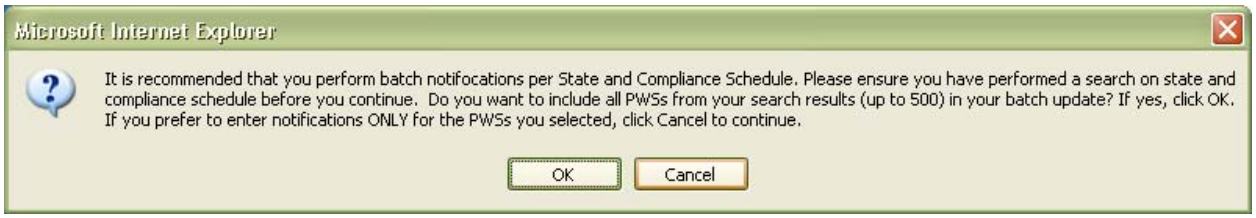


Figure 3-7. PWS Notification Bulk Screen

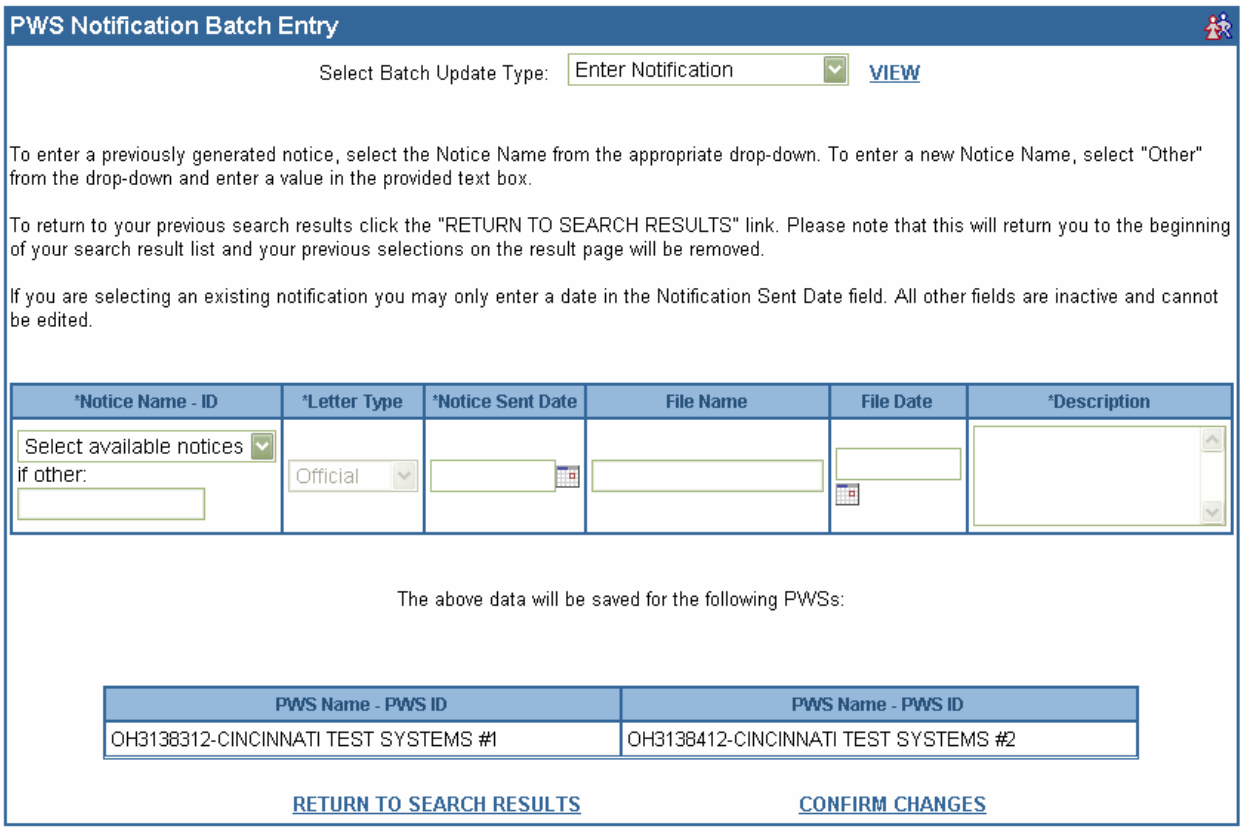


Figure 3-8. PWS Notification Batch Entry Screen

The following links are provided to assist in screen navigation. To perform a different batch update to the selected PWSs, select the type from the Select Batch Update Type drop-down menu and click "VIEW". To return to your search results, click the "RETURN TO PWS RESULTS" link located at the bottom of the screen.

To edit information, select or enter a new value for the appropriate field. For Notice Sent Date and File Date, enter a date in *mm/dd/yyyy* format, or select a date from a calendar by clicking the calendar icon. Click the "CONFIRM CHANGES" link at the bottom of the screen to review a list of all changes. A "PWS Notification Batch Entry" confirmation screen will display. You can use this screen to edit the changes you have already made. **Figure 3-9** provides an example of the "PWS Notification Batch Entry" confirmation screen.

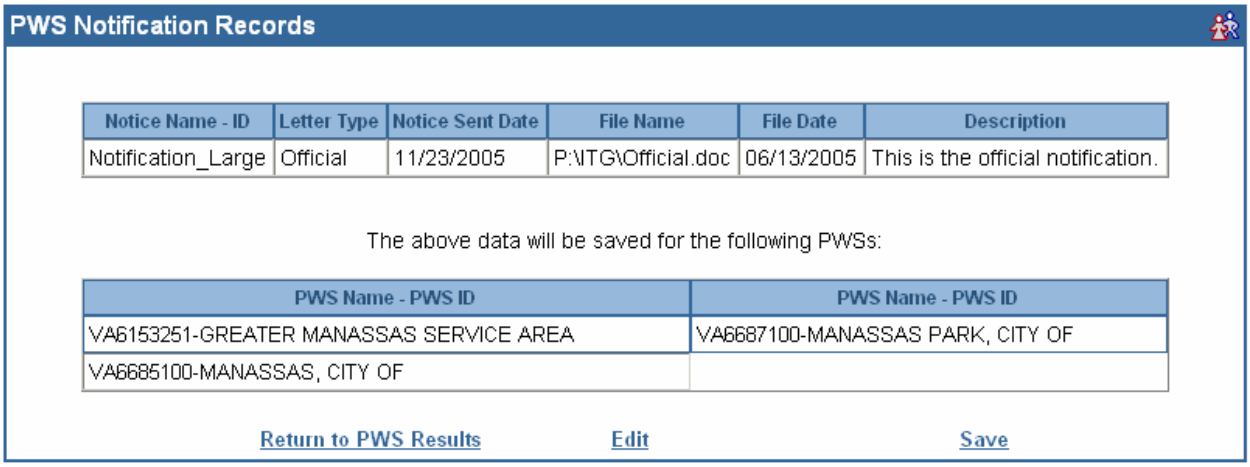


Figure 3-9. PWS Notification Batch Entry - Confirmation Screen

To edit your changes, click the "EDIT" link on the confirmation screen.

Once you have confirmed your changes on the confirmation screen, click the "SAVE" link to save your changes.

To return to your search results, click the "RETURN TO PWS RESULTS" link located at the bottom of the screen.

3.1.6 PWS Batch Submission

The "PWS Batch Submission" screen allows users to update an existing submission record or create a new submission for multiple PWSs at one time. PWS Batch Submission is a two-step process that allows you to enter/update several fields of information for a PWSs submission record. **Figure 3-10** and **Figure 3-11** provides an example of the "PWS Batch Submission" screen.

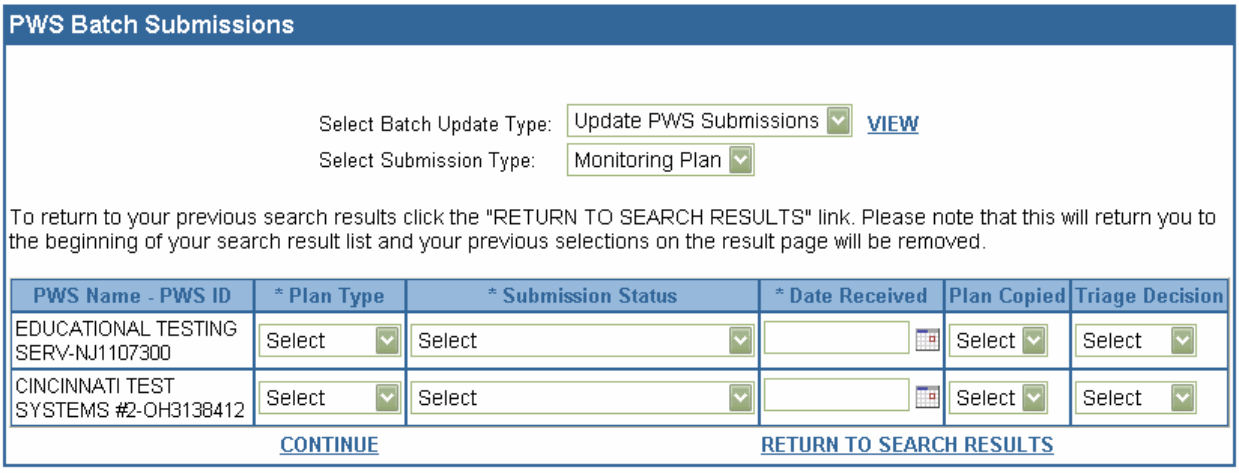


Figure 3-10. PWS Batch Submission Part 1 Screen

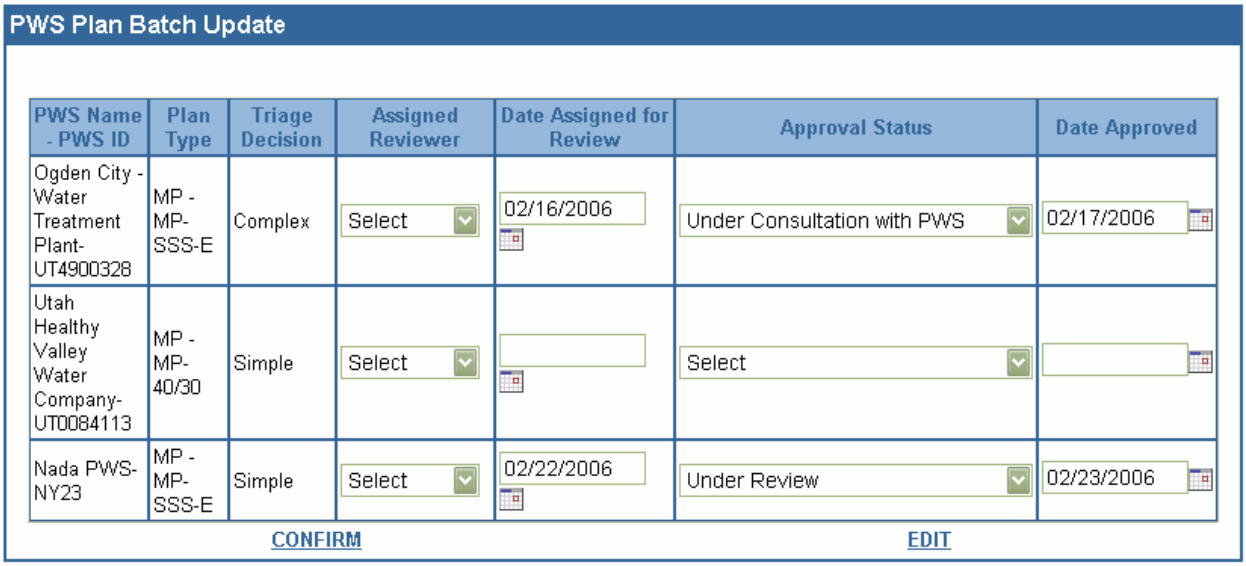
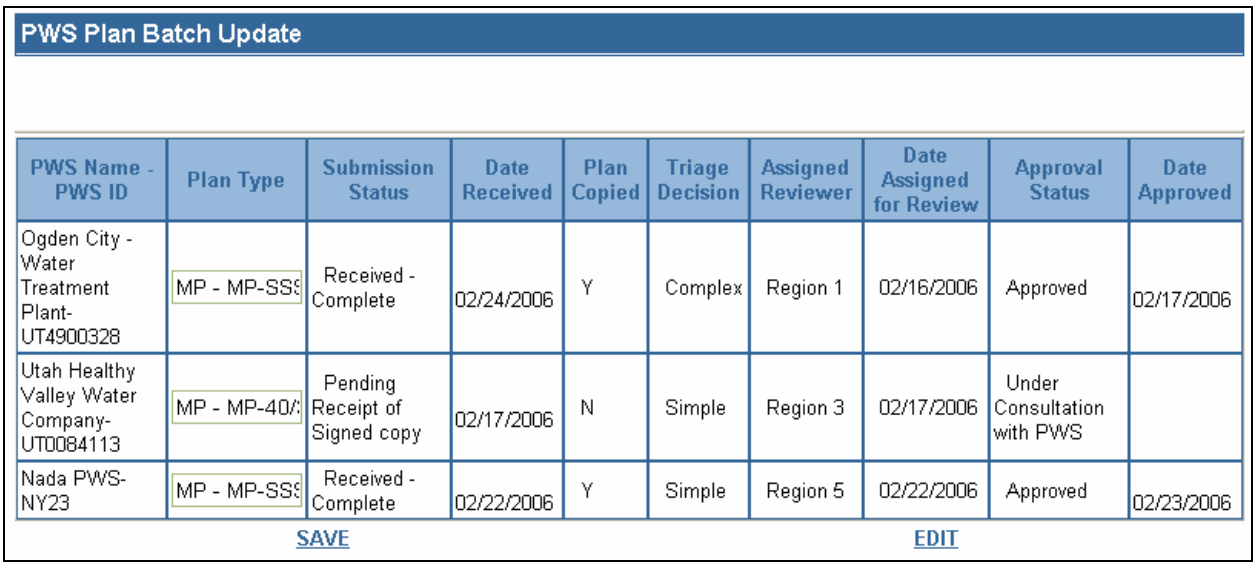


Figure 3-11 PWS Batch Submission Part 2 Screen

To perform a different batch update to the selected PWSs, select the type from the Select Batch Update Type drop-down menu and click "VIEW". The "PWS Batch Submission" process defaults to "Monitoring Plan" submissions. To perform a batch update for IDSE Reports select the "IDSE Report" option from the "Select Plan Type" drop-down. To return to your search results, click the "RETURN TO SEARCH RESULTS" link located at the bottom of the screen.

The Batch Submission page has two entry pages; existing information for each selected PWS is displayed in a table. Users may update one or more of the following fields: Plan Type, Submission Status, Date Received, Plan Copied, and Triage Decision on the first page. To continue to the next page click "CONTINUE". Users may update one or more of the following fields: Assigned Reviewer, Date Assigned for Review, Approval Status, and Date Approved. For Date fields, enter a date in *mm/dd/yyyy* format, or select a date from a calendar by clicking the calendar icon.

Click the "CONFIRM" link at the bottom of the screen to continue to the next set of entry fields. Click the "CONFIRM" link at the bottom of the screen to view a list of all changes. **Figure 3-12** provides an example of the "PWS Batch Submission" confirmation screen.



PWS Plan Batch Update

PWS Name - PWS ID	Plan Type	Submission Status	Date Received	Plan Copied	Triage Decision	Assigned Reviewer	Date Assigned for Review	Approval Status	Date Approved
Ogden City - Water Treatment Plant-UT4900328	MP - MP-SSS	Received - Complete	02/24/2006	Y	Complex	Region 1	02/16/2006	Approved	02/17/2006
Utah Healthy Valley Water Company-UT0084113	MP - MP-40/	Pending Receipt of Signed copy	02/17/2006	N	Simple	Region 3	02/17/2006	Under Consultation with PWS	
Nada PWS-NY23	MP - MP-SSS	Received - Complete	02/22/2006	Y	Simple	Region 5	02/22/2006	Approved	02/23/2006

SAVE EDIT

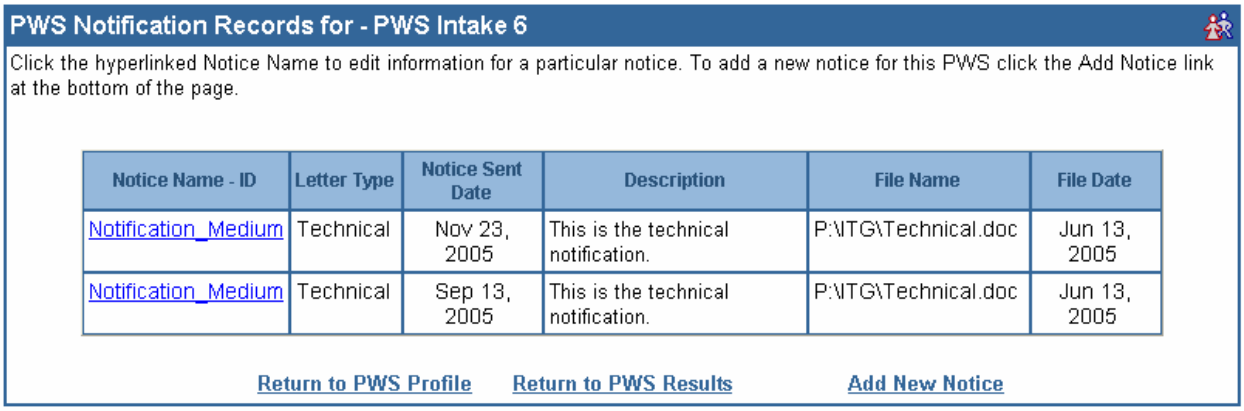
Figure 3-12. PWS Batch Submissions - Confirmation Screen

To edit your changes, click the "EDIT" link on the confirmation screen.

Once you have confirmed your changes on the confirmation screen, click the "SAVE" link to save your changes.

3.1.7 PWS Notification Records

The "PWS Notification Records" screen allows users to view a list of notification records that have been sent to an individual PWS. **Figure 3-13** provides an example of the "PWS Notification Records" screen.



PWS Notification Records for - PWS Intake 6

Click the hyperlinked Notice Name to edit information for a particular notice. To add a new notice for this PWS click the Add Notice link at the bottom of the page.

Notice Name - ID	Letter Type	Notice Sent Date	Description	File Name	File Date
Notification_Medium	Technical	Nov 23, 2005	This is the technical notification.	P:\ITG\Technical.doc	Jun 13, 2005
Notification_Medium	Technical	Sep 13, 2005	This is the technical notification.	P:\ITG\Technical.doc	Jun 13, 2005

Return to PWS Profile Return to PWS Results Add New Notice

Figure 3-13. PWS Notification Records Screen

To edit an existing notification, click the hyperlinked Notice Name. To add a new notice, click the "ADD NEW NOTICE" link located at the bottom of the screen. The "PWS Notifications Records" screen will display. Follow the instructions in Section 3.1.8, *Add/Edit Notification Record*, to modify the notification.

The following links are provided to assist in screen navigation. To return to your search results, click the "RETURN TO PWS RESULTS" link located at the bottom of the screen. To return to the PWS Profile, click the "RETURN TO PWS PROFILE" link located at the bottom of the screen.

3.1.8 Add/Edit Notification Record

The "PWS Notifications Record" screen allows users to add or edit a notification for an individual PWS. **Figure 3-14** provides an example of the "Add/Edit Notification Record" screen.

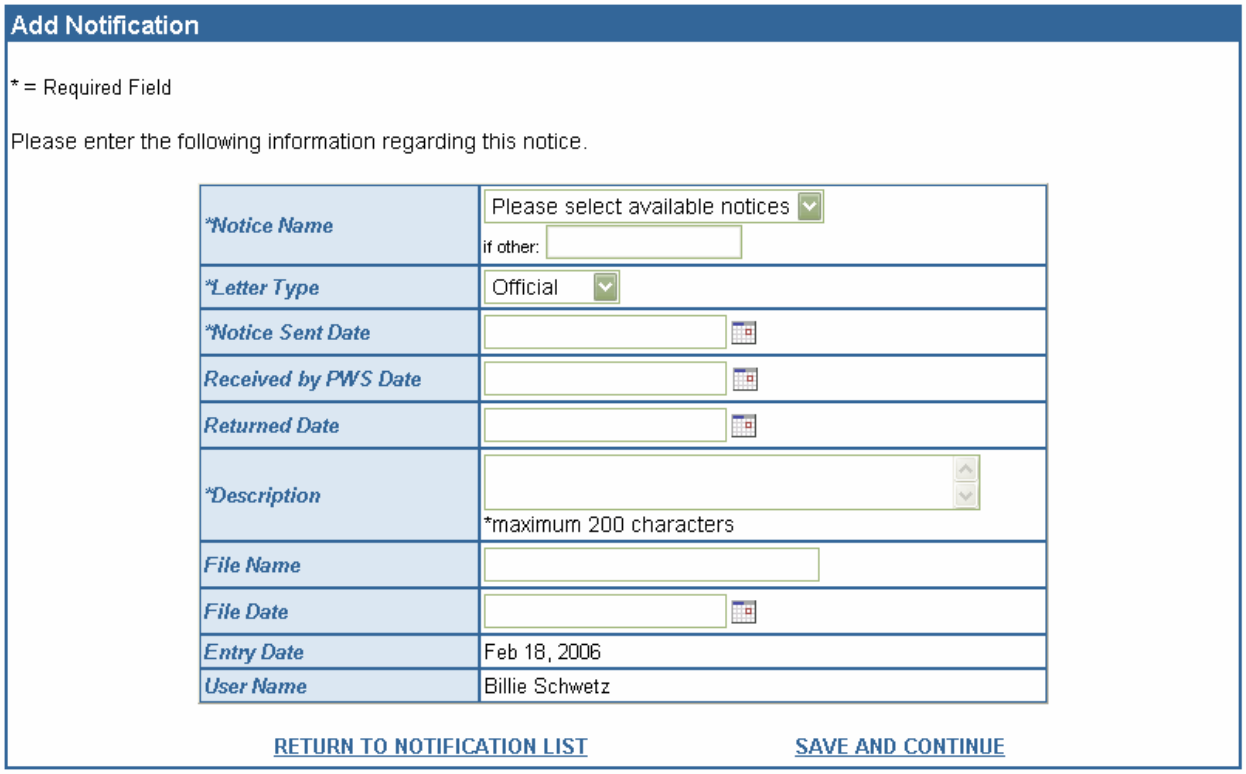


Figure 3-14. Add/Edit Notification Record Screen

Enter/select a value for each of the required fields on the screen; complete optional fields where appropriate. Click "SAVE AND CONTINUE" when finished.

To return to your search results, click the "RETURN TO NOTIFICATION LIST" link located at the bottom of the screen.

3.1.9 Submission Status

The "Submission Status" screen allows users to add or modify a submission record for an individual PWS. **Figure 3-15** provides an example of the "Submission Status" select submission screen.

Figure 3-15. Submission Status - Selection Submission Screen

Select the type of submission from the "Select Submission Type" drop-down. The submission process allows you to track the status of Monitoring Plans, IDSE Reports, and LT2 Submissions. Once you have selected the type of submission, the submission record will be displayed. **Figure 3-16** provides an example of the "Submission Status" submission record screen.

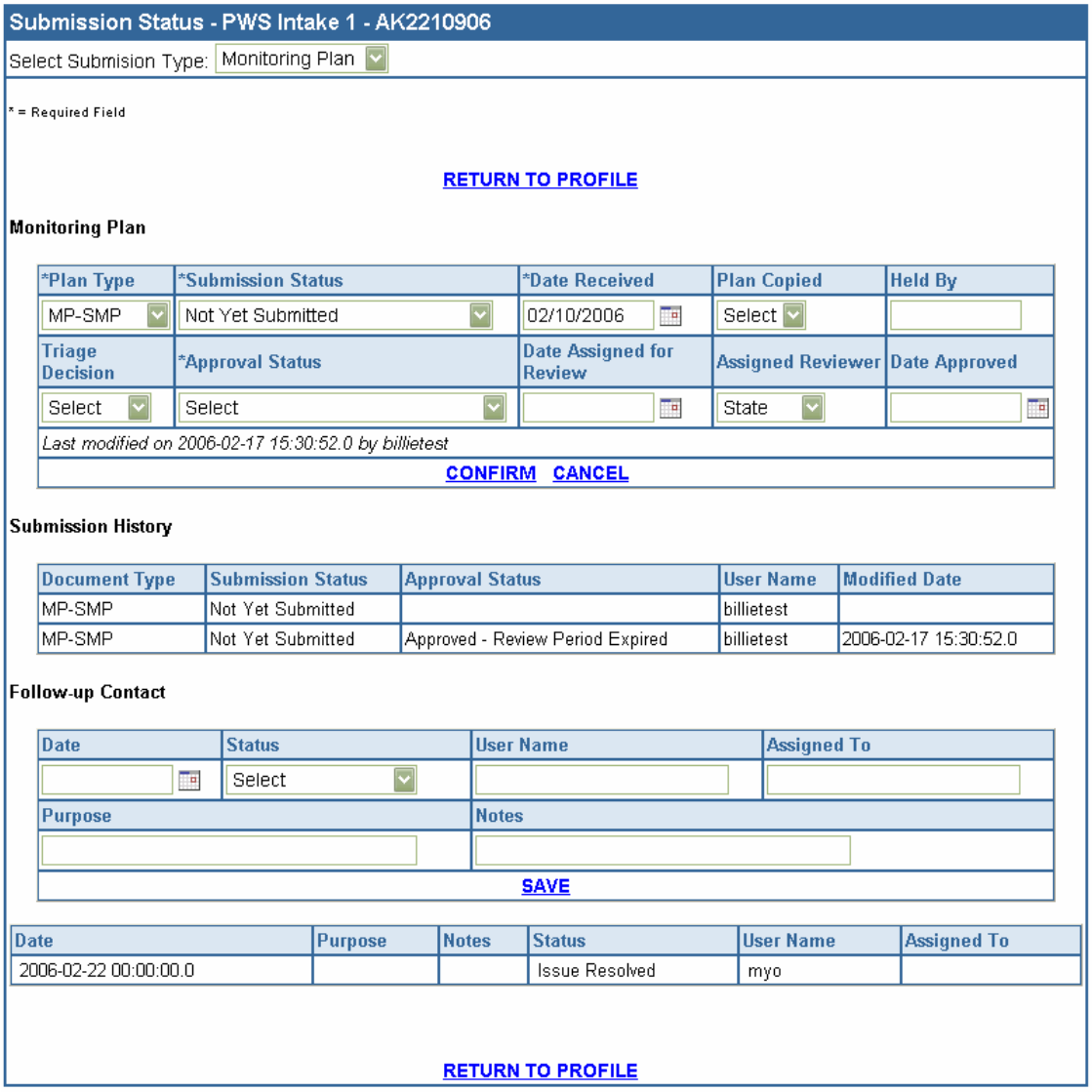
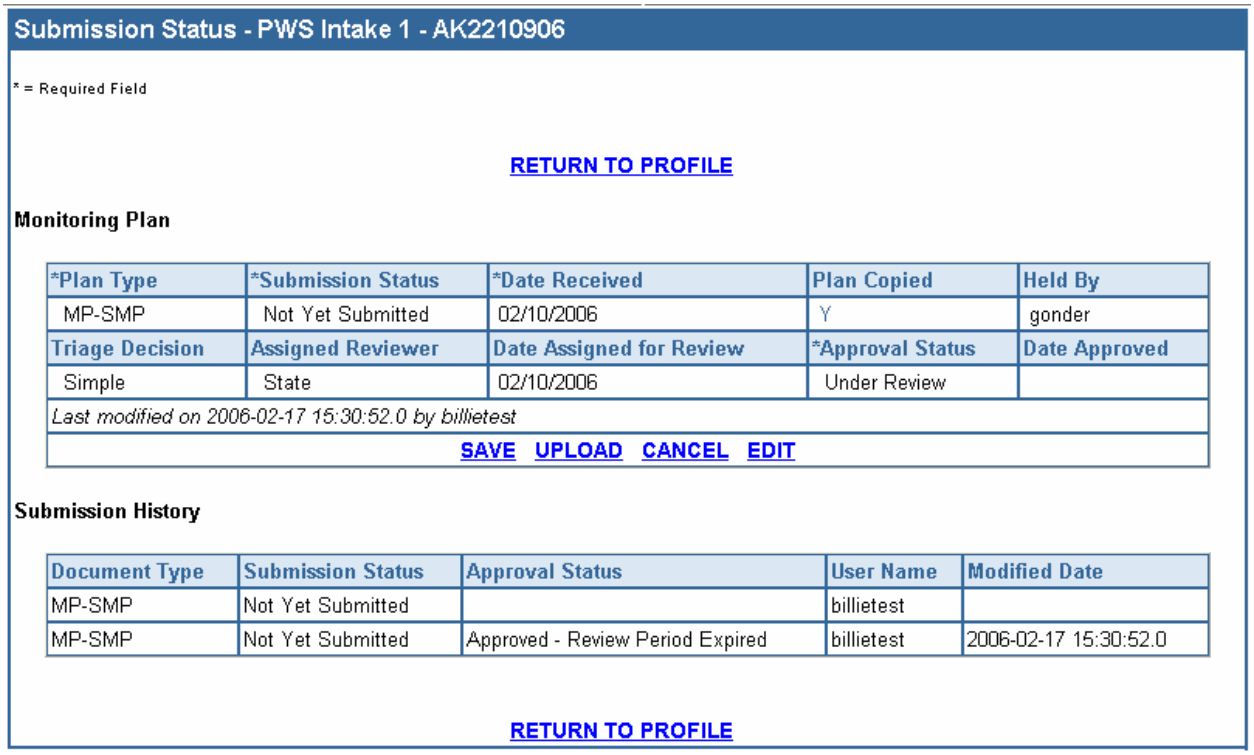


Figure 3-16. Submission Status - Submission Record Screen

Enter or update the fields listed under the submission selected; click "CONFIRM" to review your changes prior to saving. The Submission History table provides a history of previous submissions for the selected PWS. To enter follow-up contact information, enter information into the Follow-up Contact table and click "SAVE". The Follow-up Contact table also provides a history of previous follow-up contacts.

Figure 3-17 provides an example of the “Submission Status” confirmation screen.



Submission Status - PWS Intake 1 - AK2210906

* = Required Field

RETURN TO PROFILE

Monitoring Plan

*Plan Type	*Submission Status	*Date Received	Plan Copied	Held By
MP-SMP	Not Yet Submitted	02/10/2006	Y	gonder
Triage Decision	**Assigned Reviewer**	**Date Assigned for Review**	***Approval Status**	**Date Approved**
Simple	State	02/10/2006	Under Review	
Last modified on 2006-02-17 15:30:52.0 by billietest				
SAVE UPLOAD CANCEL EDIT				

Submission History

Document Type	Submission Status	Approval Status	User Name	Modified Date
MP-SMP	Not Yet Submitted		billietest	
MP-SMP	Not Yet Submitted	Approved - Review Period Expired	billietest	2006-02-17 15:30:52.0

RETURN TO PROFILE

Figure 3-17. Submission Status - Confirmation Screen

If you are entering a new submission, the system will provide you with a "SAVE/UPLOAD" link on the confirmation screen. Select this link to save your submission and upload the file(s) associated with the new submission.

Note: You must upload a file with a new submission.

If you are updating an existing submission, the system will provide you with an option to save or upload files. Click "SAVE" to save your changes. Click "UPLOAD" to upload additional files to associate with your submission. See section 3.1.10 for more information regarding the "Upload Files" screen.

To edit your changes, click the "EDIT" link on the confirmation screen.

To cancel your changes, click "CANCEL".

3.1.10 Upload Files

The "Upload Files" screen allows users to upload the files associated to their submission. **Figure 3-18** provides an example of the "Upload Files" screen.

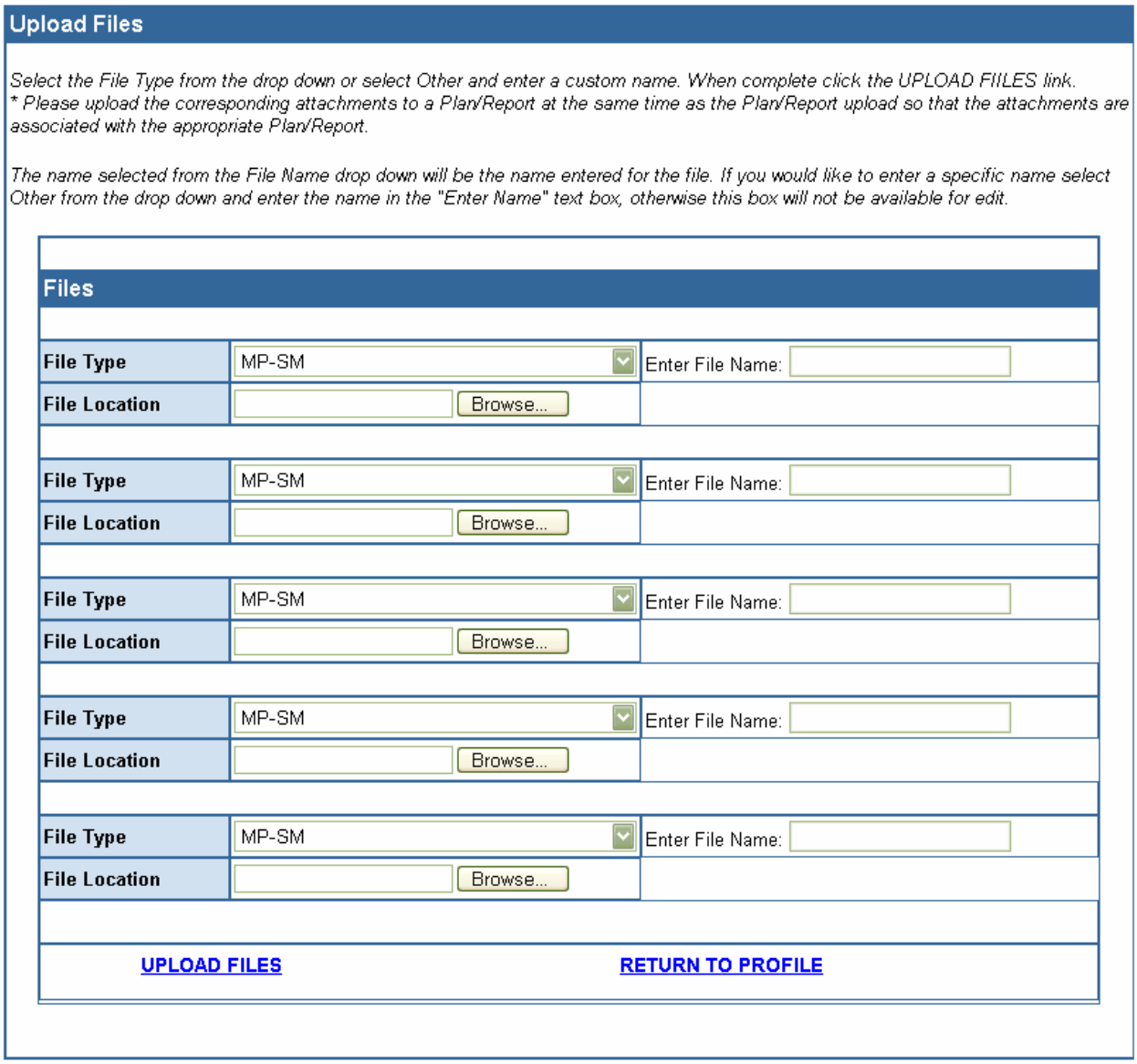


Figure 3-18. Upload Files

The "Upload Files" screen provides you with the ability to upload up to five files at one time. To upload a file, make a selection from the File Type drop-down. If your file category does not match one of the options in the drop-down, click "Other" and enter a name in the Enter File Name field.

To select the actual document you wish to upload, click the "BROWSE" button and browse to the location of the document. Click the "UPLOAD FILES" link to upload the files to the database.

You may upload up to five files at a time. If you wish to upload more than five files, do so in increments of five by accessing the submission again and choosing "UPLOAD FILES".

To return to the PWS profile, click the "RETURN TO PROFILE" link located at the bottom of the screen.

3.2 Reports

EPA and State Users have the ability to view reports generated by the LT2/Stage 2 Tracking System database. To access the reports, click the "REPORTS" link on the left-hand toolbar. The "Reports" screen will display, as shown in **Figure 3-19**.

Figure 3-19. Reports Screen

The reports available for EPA users are as follows:

- **CDS Information -** Displays CDS information for each PWS, grouped by CDS ID.

The reports that will be available in the 2nd release are as follows:

- **Compliance Groups -** Displays the Stage 2 PWSs that are within each of the four compliance groups, as well as any custom compliance groups.
- **IDSE Information -** Displays a summary of review status per reviewer as well as a record of the submission for each PWS.
- **Notification Information -** Displays a record of the notification correspondence for each PWS.

State Users have the ability to review a subset of these reports. All data displayed is applicable to PWS utilities within their state jurisdiction. The reports available to State Users are as follows:

- **CDS Information -** Displays CDS information for each PWS, grouped by CDS ID.

The reports that will be available in the 2nd release are as follows:

- **Compliance Groups -** Displays the Stage 2 PWSs that are within each of the four compliance groups, as well as any custom compliance groups.
- **IDSE Information -** Displays a summary of review statuses per reviewer as well as a record of the submission for each PWS.
- **Notification Information -** Displays a record of the notification correspondence for each PWS.

3.3 Contacts

Each organization using the LT2/Stage 2 Tracking System must have an Official Contact. The Official Contact should be the organization's primary person that EPA will contact regarding Stage 2 issues. The LT2/Stage 2 Tracking System allows you to search for PWS, State, or Regional contacts. **Figure 3-20** displays the "Contacts" list screen.

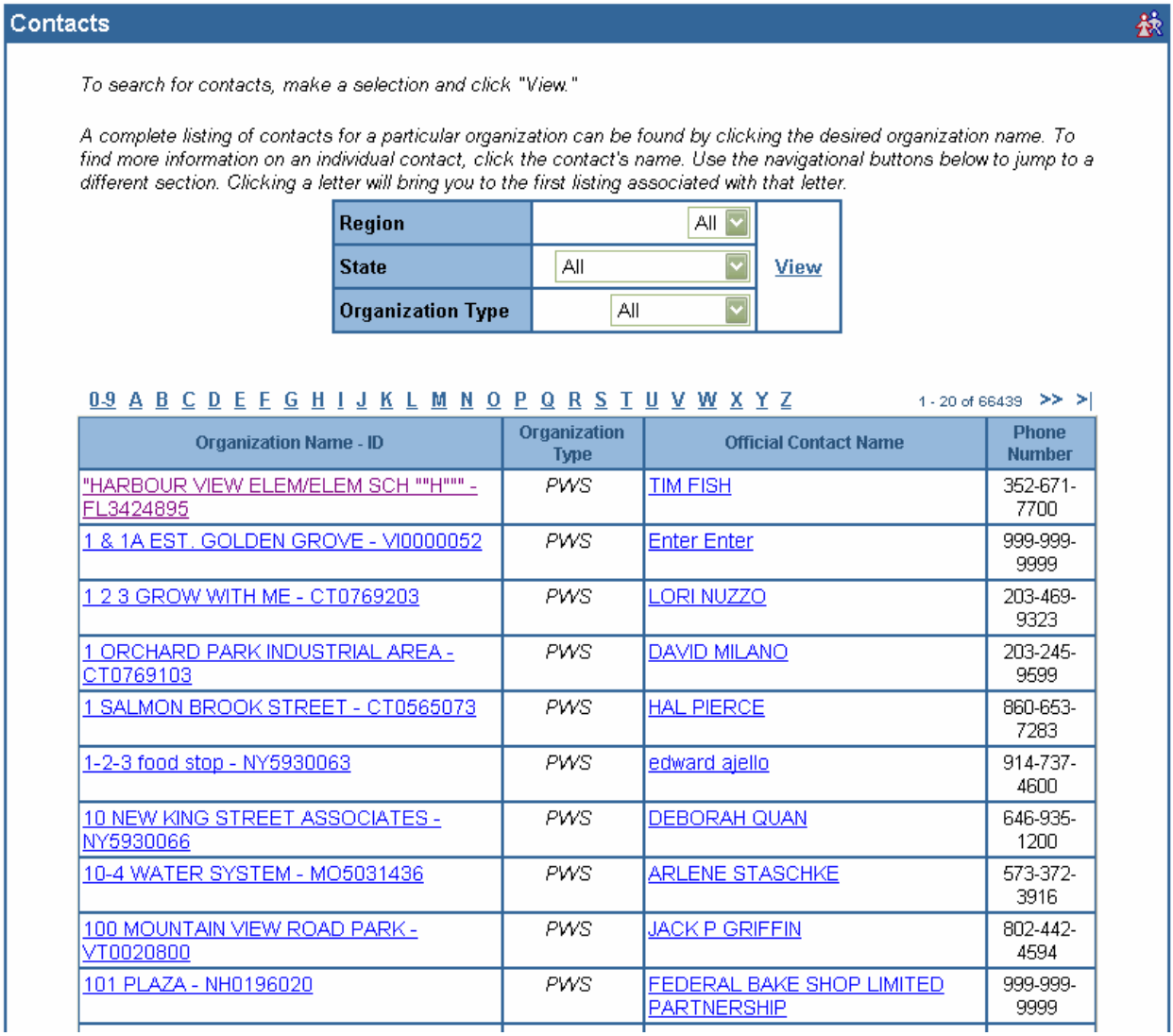


Figure 3-20. Contacts List Screen

Search for contacts by selecting the Region, State, and/or Organization Type from the appropriate drop-down menus at the top of the page, then click "VIEW" to display the list of contacts. To search the list by Organization Name - ID, use the letters above the table to display organizations that begin with that letter.

3.3.1 List Contacts

To display a complete listing of contacts for an organization, click the organization name. **Figure 3-21** displays an example of the "Contacts" for an organization.

Note: The LT2/Stage 2 Tracking System requires the designation of at least one Official Contact. If there is only one contact for the organization selected, that contact will automatically be designated as the Official Contact.

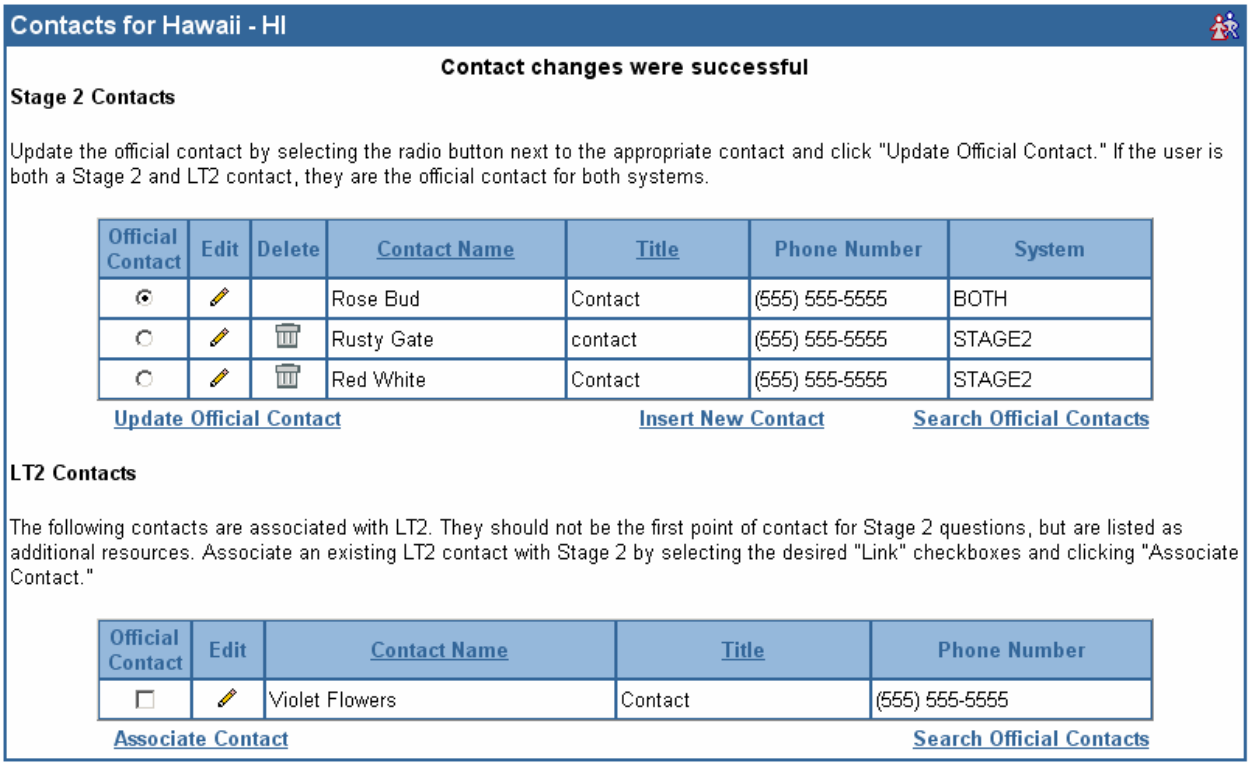


Figure 3-21. Contacts for Hawaii - Example Screen

Contact information is shared between the LT2/Stage 2 Tracking System and the LT2 Data Collection System; contacts for each system can be viewed within the other system. For this reason, the "Contacts" screen is divided into two sections: Stage 2 Contacts and LT2 Contacts.

Stage 2 Contacts displays all contacts for Stage 2. If the Stage 2 contact is also an LT2 contact, the contact will be listed under Stage 2 Contacts with "BOTH" displayed under the System column. In Figure 3-20, Rose Bud is a contact for both Stage 2 and LT2, whereas Rusty Gate and Red White are contacts for Stage 2 only.

LT2 Contacts displays contacts for LT2 only. In Figure 3-20, Violet Flowers is a contact solely for LT2.

Note: The LT2 contacts should not be your first point of contact for Stage 2. They are listed as an additional resource if the Stage 2 contact is not available.

You can change the Official Contact for a PWS by clicking the appropriate radio button under the Official Contact column, then clicking the "UPDATE OFFICIAL CONTACT" link.

Note: Only one name may be designated as the Official Contact for each system.

To associate a pre-existing LT2 contact with Stage 2, select the corresponding check box from the Official Contact column, and click the "ASSOCIATE CONTACT" link. In **Figure 3-22**, Violet Flowers has been

associated to Stage 2 as well as LT2. Note that she is now shown under Stage 2 Contacts with "BOTH" displayed under the System column.

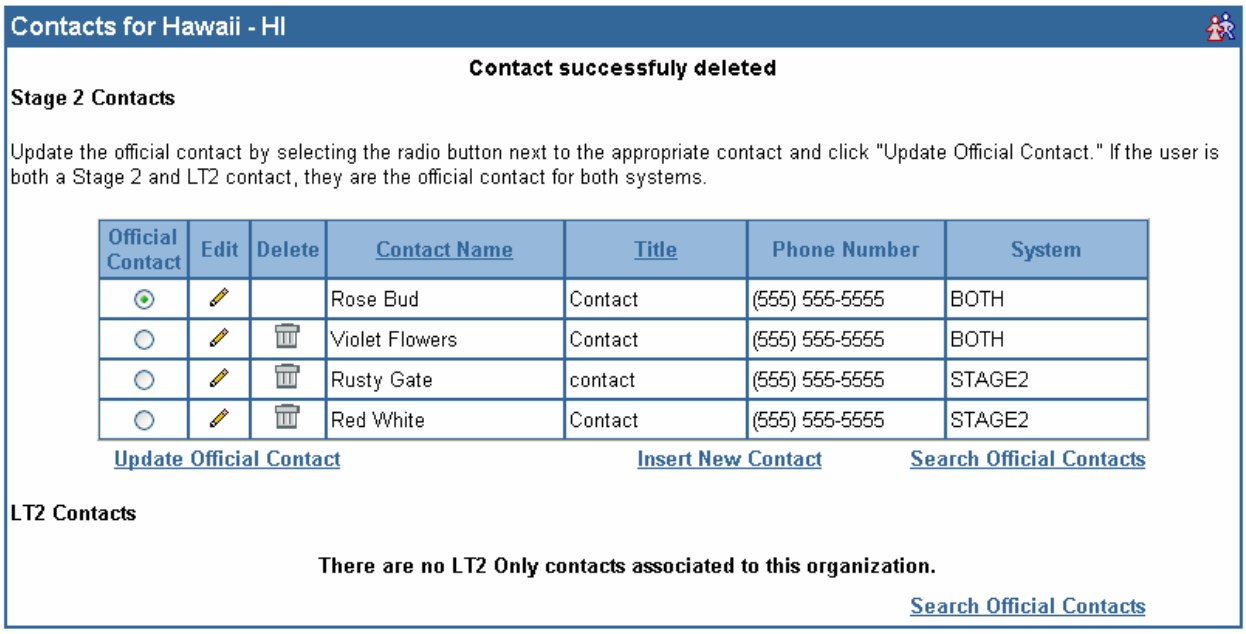


Figure 3-22. Contacts - No LT2 Contacts Example Screen

Note: LT2 contacts are not required in the LT2/Stage 2 Tracking System. If there are no LT2 only contacts for the organization selected, a screen similar to Figure 3-21 will display. In the LT2 Contacts section, the message "There are no LT2 Only contacts associated to this organization." will display.

3.3.2 Display Contact Information

To display the complete information for a contact, click on the contact name. **Figure 3-23** displays an example of the "Contacts" - information screen.

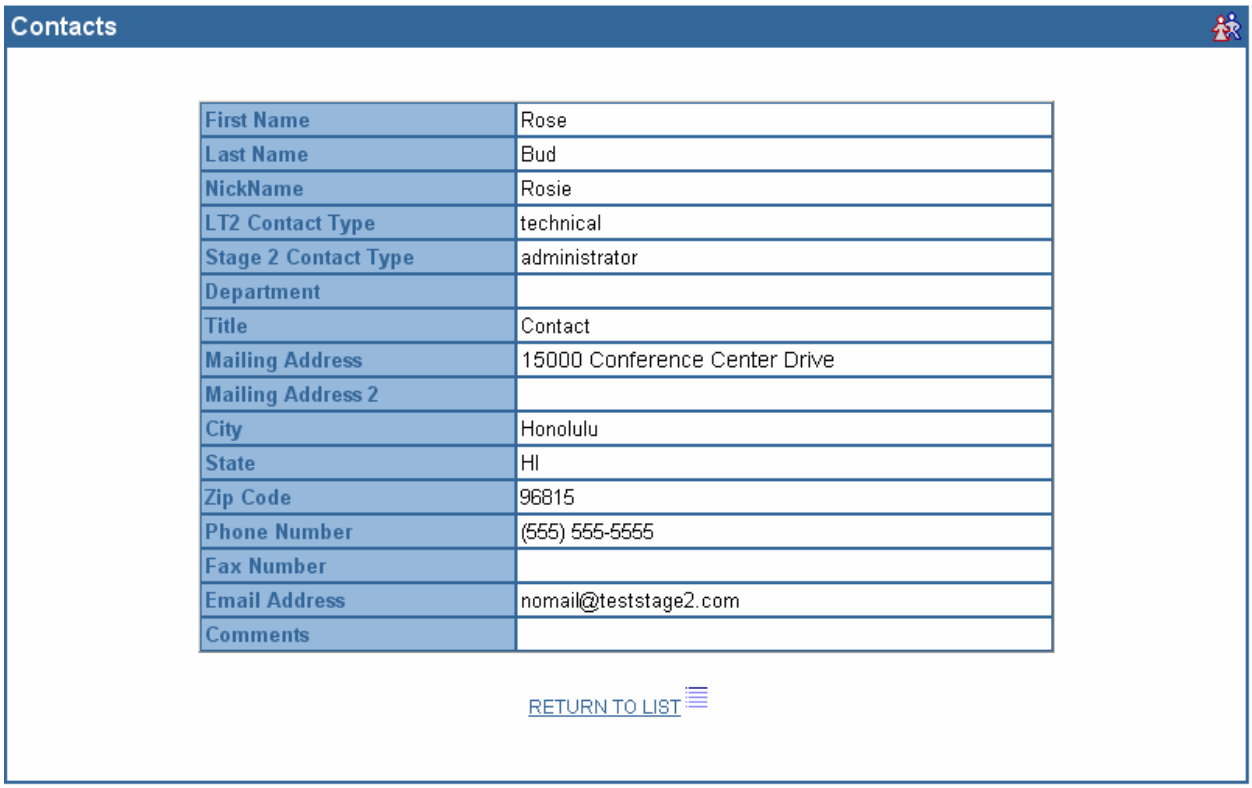


Figure 3-23. Contacts - Information Screen

3.3.3 Add Contact

To add a new contact, click the "INSERT NEW CONTACT" link. **Figure 3-24** displays the "Contacts" - add screen.

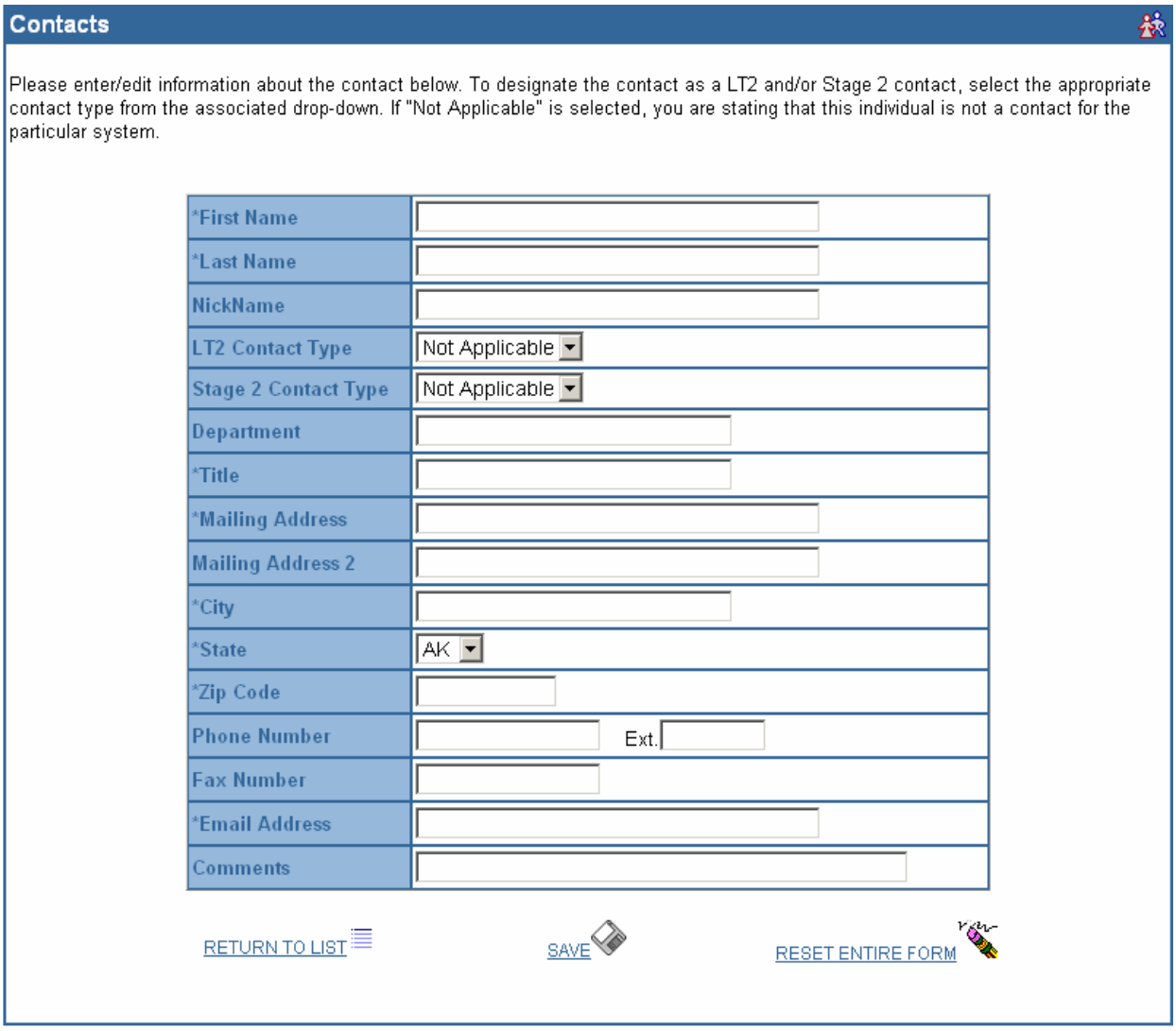


Figure 3-24. Contacts - Add Screen

Enter or select values for all required fields. Enter optional fields as appropriate. Fields marked with an asterisk ("*") are required.

When you have finished entering the information, click "SAVE" to add the contact. To clear this screen of any information entered prior to saving; click "RESET ENTIRE FORM". To exit this screen without adding the contact, click "RETURN TO LIST".

3.3.4 Edit Contact

To edit contact information, click the pencil icon next to the contact name in the Edit column. **Figure 3-25** displays an example "Contacts" - edit screen.

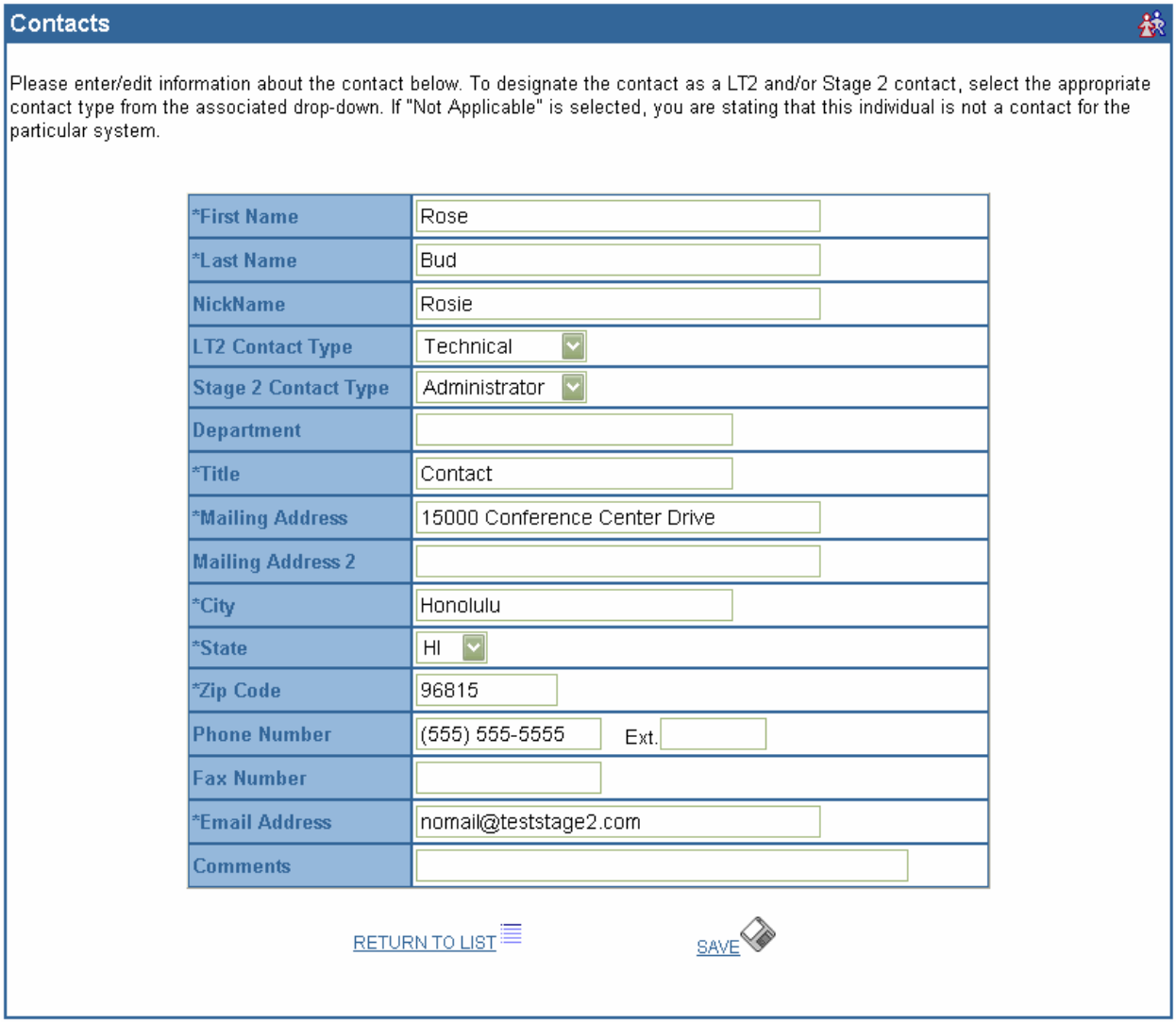


Figure 3-25. Contacts - Edit Screen

Make the necessary edits and click "SAVE" to return to the Contacts listing. To exit this screen without updating the contact information, click "RETURN TO LIST".

3.3.5 Delete Contact

To delete a contact, click the trashcan icon  next to the contact name in the Delete column. A confirmation box will display, as shown in **Figure 3-26**. Click "OK" to confirm the deletion.

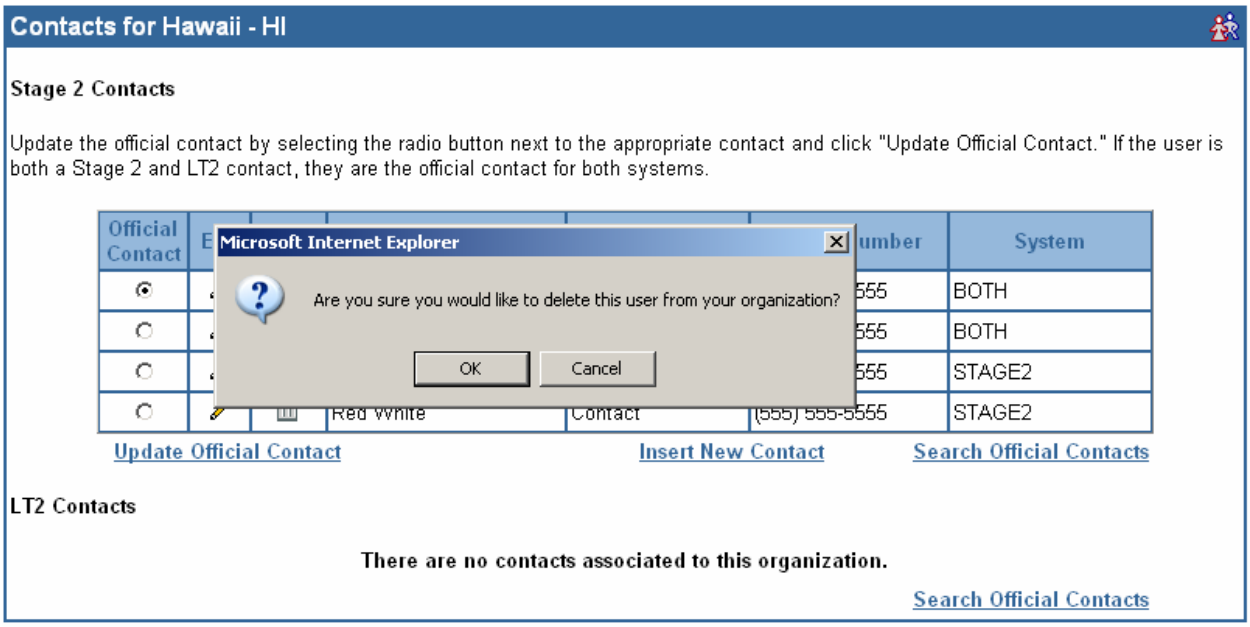


Figure 3-26. Contacts - Delete Screen

Note: There must be at least one designated Official Contact for the organization. If there is only one designated Official Contact for the organization, the LT2/Stage 2 Tracking System will not allow the Official Contact to be deleted.

3.4 Select Application

The Select Application function is intended as a shortcut enabling LT2/Stage 2 Tracking System users to access their application list in order to jump to either LT2 Data Collection System or IDSE Plan/Report Entry. Upon selecting Select Application, the system presents a screen listing all of the applications that you have access to. **Figure 3-27** provides an example of the "Select Application" screen.

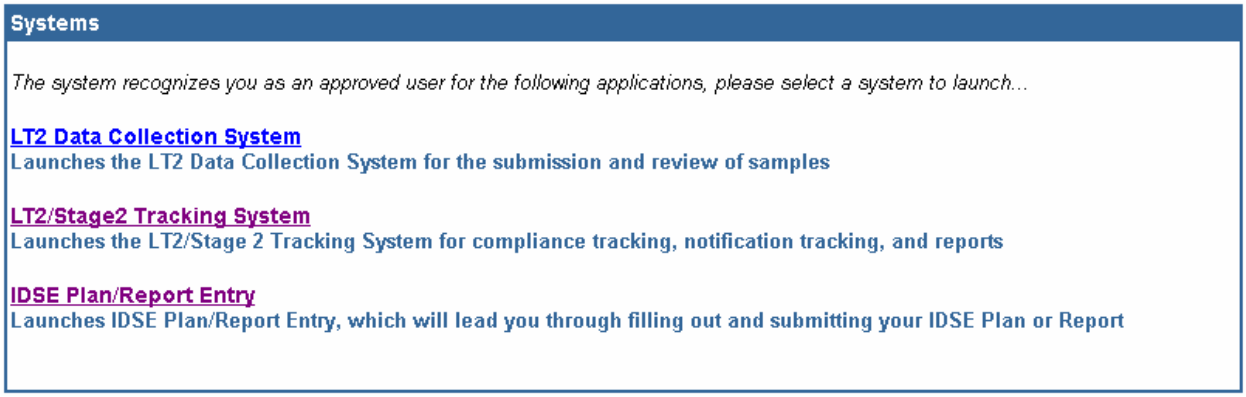


Figure 3-27. Select Application Screen

The system will display a list of applications available to you; select the application for which you would like to access.

Click "LOGOUT" to return to the login page.

3.5 State Profile

The "State Profile" screen allows users to view and/or modify information related to a state. **Figure 3-28** provides an example of the "State Profile" screen.

Note: **State Users** are only allowed to view the profile for their designated state.

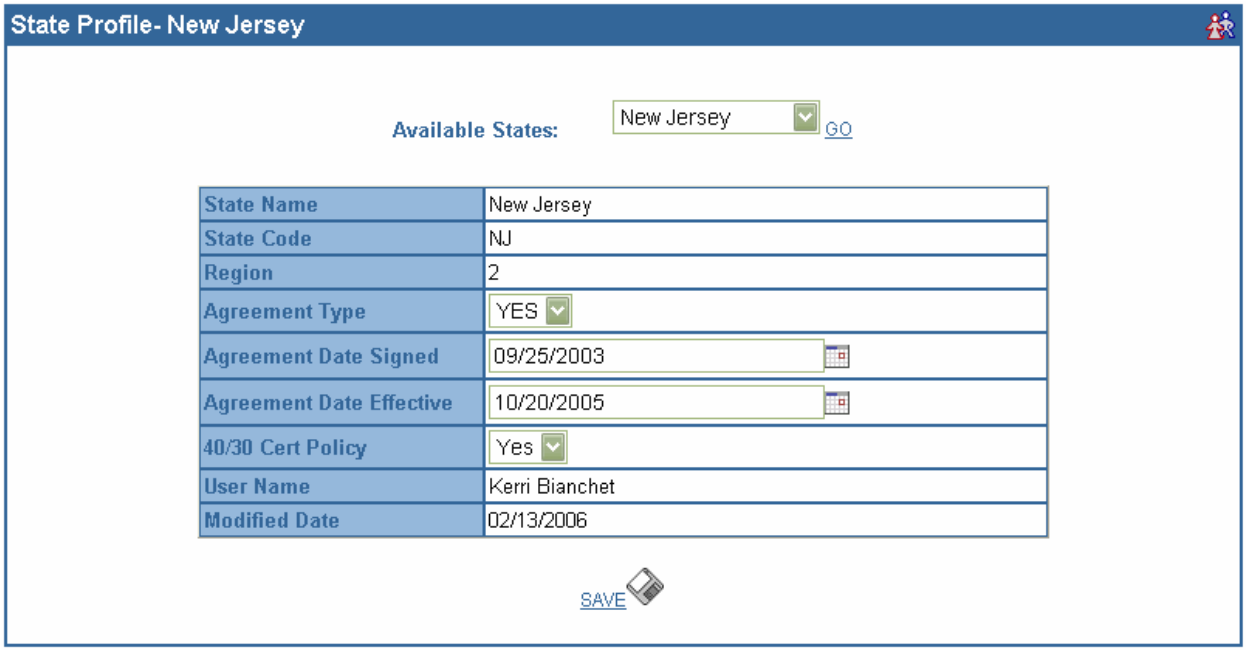


Figure 3-28. State Profile Screen

EPA users must select a state from their Available States drop-down menu and click "GO" to view the profile for a state. For **State Users**, the profile for their state will automatically display.

Several fields of information are available for the user to update, including Agreement Type, Agreement Date Signed, Agreement Date Effective, and 40/30 Cert Policy. Users may make a selection using the drop-down menu. For the Agreement Date Signed and Agreement Date Field, enter a date in *mm/dd/yyyy* format or select a date from a calendar by clicking the calendar icon.

Click "SAVE" to complete the changes.

3.6 Submit Comments

Users are encouraged to provide EPA with feedback about the LT2/Stage 2 Tracking System. This screen provides a forum in which user feedback will be collected. **Figure 3-29** provides an example of the "Submit Comments" screen.

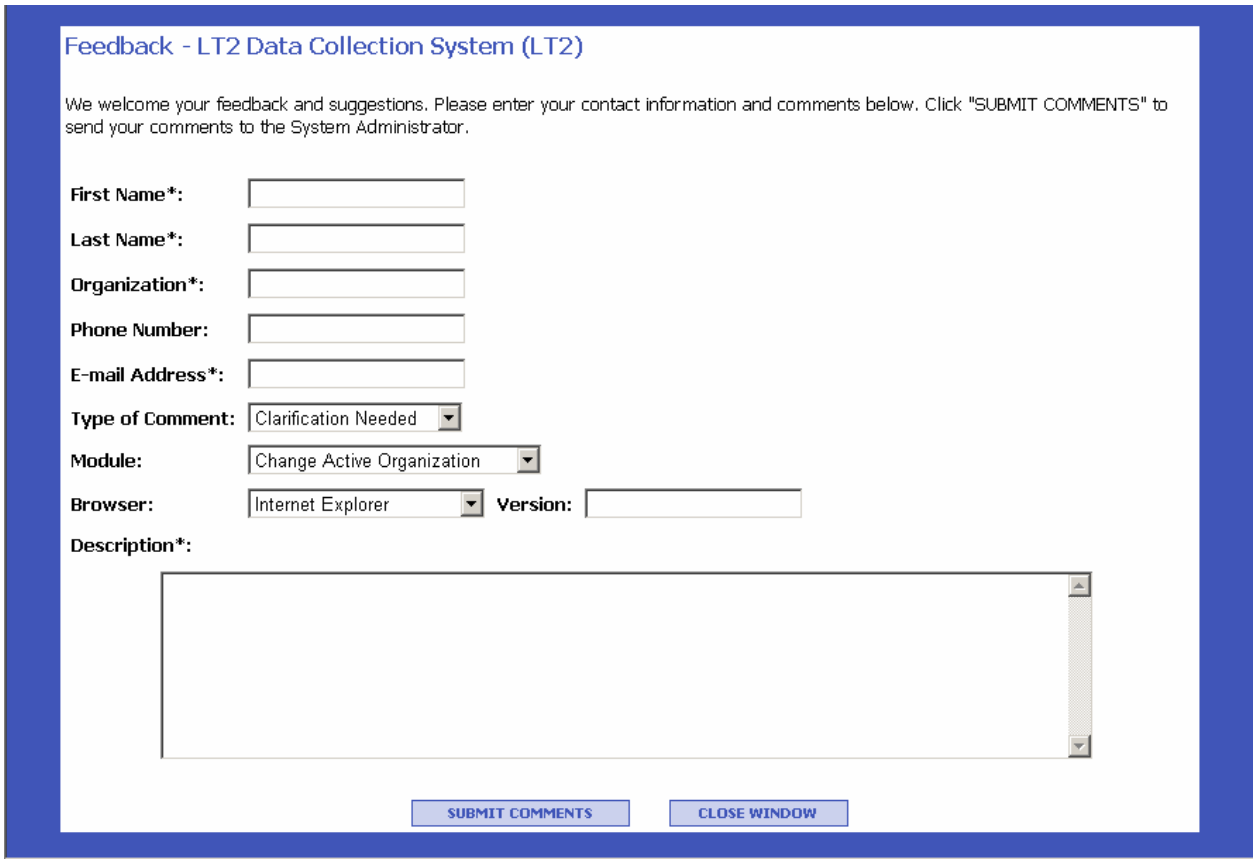


Figure 3-29. Submit Comments Screen

The fields followed by an asterisk ("*") are required in order to submit a comment.

The user is encouraged to enter the optional information where applicable.

Enter your name, organization, phone number, and email address.

Select whether your comment is being entered for additional clarification, an enhancement, a functional error, or if it is a general comment.

Select the screen/module in which you are working. This identifying information can be found at the top of the screen in the blue bar.

Select the Web browser you are using, and enter the version with which you are working (for example, Internet Explorer 5.5).

Enter a description for the problem, providing as much information as possible. Be sure to reference the sequence of events leading to any system bugs, as well as the values you entered when the bug occurred.

To submit your entry, click the "SUBMIT COMMENTS" link. The page will refresh and display a confirmation message.

Section 4. Legal and Security Considerations

This section focuses on legal and security considerations for all users to ensure security and reliability of the user accounts and data submitted through the LT2/Stage 2 Tracking System. Maintaining Stage 2 information electronically using a Web interface reduces the burden on responsible State and EPA Users for entering, maintaining, and disseminating this information on paper. The reduced burden is a result of eliminating labor, time, and other costs associated with submitting data on paper. It is important to note, however, that electronic reporting does not alleviate or alter a user's responsibilities or liabilities.

4.1 Application Location

The LT2/Stage 2 Tracking System is hosted on USEPA's Research Triangle Park (RTP) database and Internet Web servers. All users access the LT2/Stage 2 Tracking System directly through the USEPA servers via their Internet connection and Web browser. The LT2/Stage 2 Tracking System is hosted within a secure environment and monitored by USEPA's National Technology Services Division (NTSD). The LT2/Stage 2 Tracking System was designed and developed in accordance with all USEPA policies and procedures for public access databases intended for release into the central environment.

4.2 User Responsibilities

The USEPA relies on all LT2/Stage 2 Tracking System users to ensure the data are protected from loss, misuse, and unauthorized access or modification. Users are required to behave in an ethical and trustworthy manner. Users should not attempt to perform actions or processing for which they do not have authorization. Actions related to LT2/Stage 2 Tracking System database administration are tracked using audit trails.

Update authority for State and EPA Users is controlled by the responsible organizations. Enforcement of security for non-EPA users is not an EPA responsibility. All LT2/Stage 2 Tracking System users are responsible and accountable for the use of the data either through direct access or via applications the users develop.

4.3 Passwords

Each individual is responsible for maintaining the integrity of his/her own User Name and Password. Transactions made with your User Name and Password are considered approved and submitted by you. If you believe your User Name or Password has been compromised contact the CDX helpdesk at (888)-890-1995.

Users can help ensure the integrity of their passwords by taking the following precautions:

- Change your passwords every 30 days.
- Use passwords containing at least eight characters, including letters and numbers.
- Do not use family names, birthdays, words describing personal interests or facets of your life that could be guessed, or actual words found in a dictionary.
- Use a different password than those used within the last eight versions of your password.
- Control access to your PC workstation and log out whenever leaving your machine.

Appendix A. Frequently Asked Questions

REGISTRATION/USER ROLES

What happens if I forgot my User Name? Should I create a new one?

No, contact the CDX helpdesk if you have forgotten both your User Name and Password.

Why must my organization have an Official Contact?

Every organization must have one Official Contact designated as the main contact for all USEPA correspondence. USEPA will contact this person if they have a question.

GENERAL

Why can't I select PWSs from multiple screens in the search results?

Due to the large amount of possible information in the search results list, users are limited to the set of 25 displayed on the screen at all times. Users are not able to select PWSs from multiple result sets. We recommend limiting your search criteria as much as possible in order for you to return a more concentrated set of results.

Why am I forced to select a state when I selected Region as my filter criteria on a report?

Due to the amount of possible information the system must process and display, you are limited to one state at a time.

Why can't I delete a contact?

The Delete function is only available if there is more than one contact listed for the organization. Also, users are not able to delete Official Contacts.

Why did the calculated compliance group change?

The calculated compliance group field is based on a PWSs retail population and CDS ID. If either of these values changes, the calculated compliance group will be updated

Is it safe to use my browsers' back button?

We recommend that users avoid using their browsers' Back button for navigational purposes as it may affect the flow of the application. Users should use the navigation menus built into the application for navigation from screen to screen.

Appendix B. Glossary

40/30 Cert Policy - In the View/Edit State Profile page. Indicates whether the state adopts a blanket policy for how to grant 40/30 certification. Field is a "Y" or "N" selection.

Agreement Date Effective – In the View/Edit State Profile page. Reflects the date when a partnership agreement will be made effective.

Agreement Date Signed - In the View/Edit State Profile page. Reflects when the partnership agreement was signed. Field is a date selection.

Agreement type - In the View/Edit State Profile page. Indicates whether there is a partnership agreement between the State and EPA

Alternative LT2 Compliance Schedule - In the View/Edit PWS Profile page. Indicates that EPA or State has approved and designated an alternative LT2 compliance schedule for the PWS.

Alternative Stage2 Compliance Schedule - In the View/Edit State Profile page. Indicates that EPA or State has approved and designated an alternative Stage 2 compliance schedule for the PWS.

Approval Status – In the View/Edit Submission Status page. Indicates the current approval status of a submission. Selections are: Under review, Under consultation with PWS, Approved and Approved – Review Period Expired. By default, all submissions are entered as Under Review when they are automatically routed to the Tracking System. Submissions are automatically marked as Approved – Review Period Expired if the default review period has ended based on the compliance schedule for the PWS.

Assigned Reviewer - In the View/Edit Submission Status page. Indicates the organization responsible for reviewing the submission. Selections are: EPA HQ, State, and Regions 1-10.

Assigned To – Name of person whom is responsible for the assigned follow-up with a PWS.

Calculated Stage 2 Compliance Schedule – The compliance schedule is calculated based off of predetermined parameters when the PWSs were populated into the Tracking System. Some PWS schedules were modified and if prompted by the system (by clicking save) a true calculated schedule will appear in this field.

CDS ID - Combined Distribution System ID is a number used by EPA to associate PWSs in combined distribution systems. 9999 is used to indicate that the PWS is not in a CDS.

City – The mailing address city for the PWS.

Compliance Schedule – Schedule assigned to a PWS based on the systems population. This schedule is a calculated value and is used to determine due dates for particular rule deadlines. There are four possible compliance schedules that a system may be assigned.

Contact Name – First and Last name of a designated contact person for a PWS.

Date Approved – In the View/Edit Submission Status page. Date submission type was approved.

Date Assigned for Review - In the View/Edit Submission Status page. Date submission type was assigned for review.

Date Received - In the View/Edit Submission Status page. Date submission type was received. If different than current date, enter the date the file was actually received.

Department – In the Contacts page. Official title of the contacts department.

Description - In the View/Edit Notifications page. It is a text field, Varchar (maximum 200). Enter a description of the notification.

Document Type - In the View/Edit Submission Status page. Displays the type of submission previously entered.

Email Address - In the View/Edit PWS Profile page. Enter/view the E-mail address of the point of contact for a PWS. It is a text field, Varchar (maximum 50).

Entry Date – In the View/Edit Submission Status. Display only. Not displayed during reentry. Value is generated by system with current system date upon entry of a submission into the system.

Fax Number - In the View/Edit PWS Profile page. Enter/view the fax number associated to a point of contact for a PWS. Text field with a maximum of 15 characters.

File Date - In the View/Edit Notifications page. Enter the location of the file used for the notification. It is a display for existing notices and can be edited for new notices. It is a date selection.

File Name - In the View/Edit Notifications page. Enter the name of the file used for the notification. It is a text field, Varchar (maximum 100). It is a display for existing notices and can be edited for new notices.

Held by – In the View/Edit Submission Status page. Enter/view the name of the person who has possession of the hardcopy for the submission being entered. This is a text entry. Displayed for Contractor role only; shows the person who has the document.

Include Closed Systems – Search filter that when checked, will include PWSs with a system status of Closed.

Letter Type – In the View/Edit Notification Records. Select the type of notice that is being entered. Drop down list for new entries and display for existing. Drop down contains: Official, Technical, and Notice.

Location Address - In the View/Edit PWS Profile page. Enter/View the current address for a PWS. Text field with a maximum of 50 characters

Location State - Region - In the View/Edit PWS Profile page, Display only. View the region name the PWS falls under

Location Zip Code - In the View/Edit PWS Profile page. Enter/View the current zip code for a PWS. Text field with a maximum of 10 characters

LT2 Compliance Schedule - Schedule assigned to a PWS based on the systems population. This schedule is a calculated value and is used to determine due dates for particular rule deadlines. There are four possible compliance schedules that a system may be assigned.

LT2 Rule Requirements – Calculated rule requirement based on a system's population and source water type. This option indicates whether or not a system as LT2 rule requirements. If so, it designates the type of requirement a system will have.

LT2 Late - LT2 Late Only means systems that must meet only the uncovered finished water reservoir notification and treatment requirements of the rule. LT2 Late Only basically means that you have to comply with the LT2 rule but you don't need to do source water monitoring. This group includes the SWP and GUP systems.

Modified Date – In the View/Edit Notifications page**.** This is a display only. This is the date that the record was updated. It is auto-updated upon save.

Nick Name – In the View/Edit contacts. 30 characters. (Varchar)

Notice Name - In the View/Edit Notifications page**.** Field is a drop down selection for existing notices. If the notice is new, select Other from the drop down and enter the field name. If it is an existing notice it is selected from a drop down.

Notice Sent Date – In the View/Edit Notifications page. Enter/View date the notification was sent. Field is a date selection.

Office Telephone Number – In the View/Edit PWS Profile. Enter/view the telephone number for the point of contact of the PWS. Text field with a maximum of 15 characters

Official Contact – Name of person designated as the official contact for a PWS. This user is typically the admin of the system and controls all access requests.

Phone Number – Enter/View the 10-digit phone number.

Plan Type – Select/view the plan type associated to the submission entry.

Purpose - In the View/Edit Submission Status page. Enter/view a brief (less than 50 character) description of the purpose for the follow-up request. This is a field displayed for follow-up contact entry.

PWS ID – The PWS ID is the public water system ID, which is comprised of a two-letter state code followed by a seven digit number.

PWS Name - ID – The PWS Name is the name of the public water system associated with the PSW ID selected.

PWS Plan Status – **Submission Type** – In the Batch PWS page. Select the type of batch submission you wish to perform. You may perform a batch submission for Monitoring Plans and IDSE Reports. Displays items available to be edited.

PWS Type – Designated type of a utility.

Received by PWS Date - In the View/Edit Notifications page field is a date selection. Enter/view the date the notification was received by the PWS.

Retail Population - In the View/Edit PWS Profile page. Enter/view the current retail population for your system. Field is a number maximum ten digits.

Returned Date - In the View/Edit Notifications page field is a date selection Enter/view the date the notification was returned to EPA.

Source Water Type - In the View/Edit PWS Profile page. Designated list of codes that represent the a systems source water type.

Stage2 Rule Requirements - Calculated rule requirement based on a system's population. This option indicates whether or not a system as LT2 rule requirements. If so, it designates the type of requirement a system will have.

State – In the find PWS page. Filed is a drop down that lists all 50 states as well as territories. The field will be filtered based on the selection. For example if Region 1 is selected the drop down will only display the states in Region 1.

State Code – In the View/Edit State Profile page. US Postal two letter code referencing a specific State. Field is display only.

State Name - In the View/Edit State Profile page. Name of the State. Field is display only

Status – In the PWS Proflie page. Displays the current status of a system: Closed, Active or Inactive based on the facilities status.

Submission Name - In the View/Edit Submission Status page. Select the type of submission you wish to search on.

Title - In the View/Edits Contacts page. Enter your official title. Text field maximum 30 (Varchar).

Triage Decision - In the View/Edit Submission Status page. Select/view the initial category of a submission type's level of difficulty for review. Drop down values the user may select: Simple or Complex.

User Name - In the View/Edit Notifications page. It is a display field only. The user who made the last edit appears as the First Name Last Name. It is auto-updated upon save.

Version # - Number associated to a file that has been re-submitted. The file with the late test version is the most current file.

Appendix I

Guidance for Reviewing Extension Requests under 1412(b)(10) of the SDWA

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FINAL
Guidance For Reviewing Extension Requests Under 1412(b)(10) Of The Safe Drinking Water Act

PURPOSE

This document provides guidance concerning how EPA interprets the authorities and limitations of Section 1412(b)(10) of the Safe Drinking Water Act (SDWA). For the purpose of this document State refers to EPA Regions and States exercising primary enforcement responsibility under the SDWA. Under certain conditions, this provision allows States to provide up to a two year extension of the date by which public water systems must comply with a new or revised National Primary Drinking Water Regulation. It also provides recommendations to State Directors on the procedures they may want to follow in using this authority.

The SDWA provisions and EPA regulations described in this document contain legally binding requirements. This document does not substitute for those provisions or regulations, nor is it a regulation itself. Thus, it does not impose legally-binding requirements on EPA, States, or the regulated community, and may not apply to a particular situation based upon the circumstances. EPA and State decision makers retain the discretion to adopt approaches on a case-by-case basis that differ from this guidance where appropriate. Any decisions regarding a particular facility will be made based on the applicable statutes and regulations. Therefore, interested parties are free to raise questions and objections about the appropriateness of the application of this guidance to a particular situation, and EPA will consider whether or not the recommendations or interpretations in the guidance are appropriate in that situation. EPA may change this guidance in the future.

BACKGROUND

The SDWA, as amended in 1996, generally requires compliance with national primary drinking water regulations 3 years after promulgation. The Amendments also allow compliance deadlines to be extended for up to an additional 2 years if it is determined that additional time is needed for capital improvement projects to comply with a maximum contaminant level (MCL) or treatment technique (TT). This is specified in Section 1412 (b)(10) of the SDWA:

> *"A national primary drinking water regulation promulgated under this section (and any amendment thereto) shall take effect on the date that is 3 years after the date on which the regulation is promulgated unless the Administrator determines that an earlier date is practicable, except that the Administrator, or a State (in the case of an individual system), may allow up to 2 additional years to comply with a maximum contaminant level or treatment technique if the Administrator or State (in the case of an individual system)determines that additional time is necessary for capital improvements."*

Furthermore, the responsibilities of the States have been further explained in the legislative history[1] for this provision:

- "The Administrator may establish an earlier date for compliance as part of the regulation, if an extended period is not necessary for design and construction. The **Administrator** is also authorized to extend the compliance period for an additional 2 years (up to a total of 5 years) in the promulgated regulation where the additional period is necessary for construction activities that may be necessary to comply."[bold added]

- "In addition to the Administrator's authority to extend the period beyond the 3 years by rule, a **State** may extend the compliance period for particular public water systems in that State that need up to an additional 2 years for the design and construction of treatment facilities or alternative water supplies to comply." [bold added]

- "The **Administrator** is authorized to provide case-by-case extensions for particular systems in States that do not have primary enforcement responsibility under section 1413."[bold added]

A State may grant extensions to an MCL or TT under 1412(b)(10) on a case-by-case basis only when additional time has not been incorporated into the rule. Under the authority of this provision, compliance with a regulation may not be extended to beyond five years after the rule publication. In other words, a system's application for an extension would only apply to those rules with a compliance deadline of less that 5 years from promulgation (e.g., Interim Enhanced Surface Water Treatment Rule). Additional extensions may be granted through the exemption provision of Section 1416. States are granted authority to issue extensions by the federal law and do not need a parallel State statute or regulation.

EPA Regions will provide case-by-case extensions for individual systems in States that do not have primacy or interim primacy (a state has interim primacy if they have submitted a <u>complete</u> primacy application package). The extension only applies to a time frame for compliance with an MCL or TT. A system is still obligated to comply with all other provisions of the regulation such as monitoring and reporting.

As new regulations are promulgated, systems will begin to evaluate the adequacy of their treatment processes to determine if they will satisfy compliance requirements for these rules. During the evaluation process some systems will conclude that, despite best efforts to do so, they will not be able to satisfy compliance requirements (i.e., meet an MCL or TT) and submit applications to their State for extensions under 1412(b)(10).

[1] Report of the Committee on the Environment and Public Works United States Senate on S. 1316, 104th Congress - 1st Session, pg. 49

HYPOTHETICAL EXAMPLE - ABC SYSTEM

ABC System is seeking an extension to comply with the new HAA5 MCL set by the Stage 1 Disinfectant/Disinfection Byproducts Rule (Stage 1 DBPR).

ABC System uses surface water as a source and serves 10,000 or more people. Note: For the Stage 1 DBPR, only Subpart H systems (systems using surface water or ground water under the direct influence of surface water) that serve 10,000 or more people may apply for an extension, since all other affected systems have up to five years to comply.

GUIDANCE

Three general areas the State should consider when reviewing requests for extensions are:

- qualification criteria,
- conditions of the extension, and
- interim treatment measures

Before a system may be granted an extension it should satisfy the qualification criteria and agree to the conditions and measures deemed necessary by the State.

QUALIFICATION CRITERIA

To qualify for an extension, a water system should meet the following criteria:

- **Demonstrate a need for an extension.**
  - The system should show that without an extension they would not be able to meet a new MCL or TT specified in the regulation.
  - The proposed capital improvement should facilitate compliance.
  - An additional aspect is to allow systems to be progressive (e.g., forethought to design with future rules in mind).

ABC System performed a study over an 18-month period and found while operating under optimum conditions they could not meet the new standards (0.060 mg/L) for the group of five haloacetic acids (HAA5), on a consistent basis.

- **The system should document their "Good Faith" efforts to meet the original compliance date of the regulation.**
  - A system should demonstrate that they initiated steps towards compliance in a reasonable period of time after the promulgation date of the rule. A reasonable period can include time for a system to discuss their options with the State prior to initiating any activities. Additionally, when evaluating a system's "Good Faith" effort toward compliance, the State may wish to consider other factors such as compliance history.
  - A system which did not take steps towards compliance, or has only started to do so in the months immediately preceding the compliance date has not demonstrated a "good faith" effort.

In February 1999, shortly after rule publication, ABC System evaluated their plant and determined it would not satisfy new regulations. ABC based the determination on monitoring done after optimization of current processes. Therefore, in January 2000, in good faith ABC initiated renovation and upgrade activities on an expedited time line.

- **Demonstrate that the scope and/or complexity of the capital improvements warrant the length of the extension.**
  - Extensions should be granted for only the period necessary to complete the required capital improvements. While 1412(b)(10) allows for extensions of up to two years, extensions for the full time should only be granted where the scope of the proposed improvements justifies the length of the time requested.

ABC System initiated construction activities to upgrade their plant to incorporate granular activated carbon (GAC) treatment to reduce HAA5 levels. Although ABC System began construction in January 2000 (two full years prior to the initial compliance deadline for Stage 1 DBPR), construction would not be completed until April 2003. Thus, ABC System requested an extension for compliance with the HAA5 MCL. Through the negotiation process with the State, ABC Systems received a 1.5 year extension.

EXTENSION CONDITIONS

Systems will likely propose a plan that includes critical milestones and a time-line with a final compliance date. Often these conditions will be refined through negotiations with the State. The State may wish to consider documenting the conditions of the extension through a memorandum of understanding signed by both parties or by signing-off on the system's plan once negotiations are completed. The conditions of an extension should, at a minimum, contain:

- **Compliance schedules with critical milestones.**
  - A system should present a realistic construction schedule to complete their capital improvement efforts. Schedules should be based upon the scope/complexity of the capital improvement. Critical milestones are those which would indicate that significant progress towards construction goals are being realized.
  - While developing the compliance schedule, the State and system should discuss and document the implications of missed milestones (e.g. violation of National Primary Drinking Water Regulation) and remedies for the delay.

- **Progress reports corresponding to critical milestones.**
  - The State should request progress reports as frequently as is necessary to perform oversight of the system. We do not intend to create any undue reporting burden by requesting information that is not critical to determining the system's compliance with the negotiated compliance schedule.

The ABC System proposed the following critical milestone to discuss in their progress reports during the extension period:

- Groundbreaking for the GAC system
- 50% building completion
- GAC installed - to include results of pilot test run
- Building construction complete, and
- Plant operating with GAC system fully operational

- **Compliance with interim measures for public health protection as determined by the State.**
  - During the extension period the system should make reasonable efforts to meet the intent of the provisions established in the rule. Measures that can be taken within the scope of the system's current operation should be established and complied with to provide a level of public health protection while capital improvements are on ongoing. Interim measures are discussed further in the following section.

- **Provide an opportunity for a system's customers to respond/comment to a notice of an extension.**
  - It is important that the public which is served by the system is informed of the purpose of the extension and has an opportunity to provide input to the system and the State.
  - The system should consider publishing a "Notice of Availability" of a public hearing as an opportunity to explain and receive feedback on the extension.

- **Notice of the extension in the annual Consumer Confidence Report (CCR) [note: applies only to community water systems (CWSs)].**
  - A CWS should explain to their customers the reason they pursued an extension.
  - The notice should explain the issues surrounding the extension and the interim measures the system will take to ensure that the quality of service will not be compromised.

ABC System agreed to notify their customers of the **extension** to the HAA5 compliance date in their annual CCR. Note: The system would not be in violation of the MCL/TT or be required to report under the Public Notification Rule, but they are required to report any compliance monitoring results in the CCR (if they are a CWS).

- The CWS is required to publish their compliance monitoring results in the CCR.

- **The State may wish to have a system issue a Public Notice, or a statement in the CCR if the MCL or TT for which the extension was granted is exceeded.**
  - A system is not required to issue a public notice during the extension period for an exceedence of an MCL or TT. The State may wish to encourage the system to notify their customers of any exeedences as part of the system's responsibility to keep the public informed of any issues related to public health and the water supply.

For ABC System, conditions of an extension include submitting quarterly sample data and notifying the public if the annual average for HAA5 exceeds 0.060 mg/L.

INTERIM MEASURES

EPA believes that it is important to consider each system's potential for achieving meaningful overall risk reduction through reasonable interim treatment requirements. Some possibilities the States may wish to consider include the following:

- **Change the treatment process, type of treatment, or point of treatment.**

ABC System will optimize treatment in their plant to improve precursor removal and minimize the formation of disinfection byproducts.

- **Implement a main flushing program in areas with high detention times and/or biofilm problems.**

- **Minimize the use of certain sources.**

- **Provide alternate solutions for sensitive populations (e.g., bottled water, point-of-use, or point-of-entry devices).**

In all cases, EPA believes that it is essential to evaluate all potential interim treatment requirements in terms of their impact on disinfection byproduct formation, microbial protection, corrosion control, and other public health issues. States should consider the net gain in public health protection when establishing interim treatment requirements.mike.price@crowncork.com