

**Stakeholders Meeting
Proposed Rules – Supplying Water to the Public**

Thursday, May 29, 2014, 9:00 a.m. to 12:00 p.m.
Constitution Hall
525 West Allegan Street, Lansing, Michigan 48933

Agenda

- 8:45 Arrival at Constitution Hall - Clear Security, Escort to Con Con Room, Sign In
- 9:00 – 9:15 Welcome - Richard Benzie, Acting Chief, Field Operations Section
Opening Comments - Liane Shekter Smith, Chief, Office of Drinking Water and
Municipal Assistance
Rule promulgation process - Jean Shekter, Environmental Quality Analyst
- 9:15 – 11:50 Presentations and discussion
- | <u>Topic</u> | <u>Rule Manager</u> |
|---|----------------------------------|
| Operator Certification | Paul Brun Del Re |
| Asset Management | Jason Berndt |
| Operations Oversight | Richard Benzie |
| Cross Connection | Pat Cook |
| Revised Total Coliform Rule | Pat Cook and
Carrie Monosmith |
| Water Quality Report for K-12 and Daycare Centers | Carrie Monosmith |
- 11:45 – 12:00 Wrap up - Richard Benzie

Rule Managers	Email address	Telephone
Richard Benzie	benzier@michigan.gov	517-284-6512
Jason Berndt	berndtj1@michigan.gov	517-284-6513
Paul Brun Del Re	brundelrep@michigan.gov	517-284-5426
Pat Cook	cookp@michigan.gov	517-284-6514
Carrie Monosmith	monosmithc@michigan.gov	517-290-2601
Jean Shekter	shekterj@michigan.gov	517-284-6519

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Federal Amendments

The rule promulgation process is beginning in order to adopt into Michigan's administrative rules the recently amended National Primary Drinking Water Regulations, Revised Total Coliform Rule (RTCR). The Department of Environmental Quality's, (DEQ), Office of Drinking Water and Municipal Assistance (ODWMA), is seeking input on how best to implement the RTCR in areas that allow for state flexibility.

Other Possible Amendments

In addition to these federal provisions, other changes are being considered for which the ODWMA is requesting input, including:

Topic	Rules Affected by Topic
Cross-Connection	R 325.11401 to R 325.11407
Examination and Certification of Operators	R 325.11910, R 325.11906a, and R 325.11915
Operations Oversight	Add administrative rules
General Plans, Asset Management	R 325.11605 and R 325.11606
Public Notification and Public Education, Water Quality Reports For K-12 and Daycare Centers	R 325.10416 to R 325.10420

Helpful Information

- For more information on amendments, contact Jean Shekter at 517-284-6519 or shekterj@michigan.gov.
- The rules and statute currently in effect can be downloaded from the Internet at <http://www.michigan.gov/deqwater>, select Drinking Water, select Community Water Supply, and select Michigan Safe Drinking Water Act.
- For more information on the federal RTCR rule, visit the United States Environmental Protection Agency Web site at http://water.epa.gov/lawsregs/rulesregs/sdwa/tcr/regulation_revisions.cfm. Please take note of the state primacy requirements in Section 142.16 of the Federal Register Notice for the RTCR.
- To read the Request for Rulemaking and to follow the rule making process for this rule package, visit <http://www.michigan.gov/deqwater>, select Drinking Water, select Community Water Supply, select Rule Promulgation under the Laws and Rules category.

Directions

For a map to Constitution Hall in Lansing, visit the DEQ Web site at <http://www.michigan.gov/deq>. Click on Locations, and click on Constitution Hall (map).

Rule Package



- 02/13/2013 RTCR in *Federal Register*
- 03/03/2014 Request for Rulemaking
- 05/29/2014 Stakeholder meeting
- 06/27/2014 Stakeholder meeting
- Future date Submit rules for ORR/LSB review
- Future date Public hearing
- 02/13/2015 EPA primacy due (could extend 2 years)
- Future date Promulgate rules
- Future date Submit primacy package
- 04/01/2016 RTCR Compliance date

Follow Rule Package On Website

- www.michigan.gov/deqwater
- Drinking Water
- Community Water Supply
- Rule Promulgation
under the Laws and Rules category

Proposed Rule Topics and Managers

Topic	Rule Manager	Email address	Telephone
Operations Oversight	Richard Benzie	benzier@michigan.gov	517-284-6512
Asset Management	Jason Berndt	berndtj1@michigan.gov	517-284-6513
Operator Certification	Paul Brun Del Re	brundelrep@michigan.gov	517-284-5426
Cross Connections & Revised Total Coliform Rule for Community Water	Pat Cook	cookp@michigan.gov	517-284-6514
Revised Total Coliform Rule for Noncommunity Water	Carrie Monosmith	monosmithc@michigan.gov	517-290-2601
Rule Coordinator	Jean Shekter	shekterj@michigan.gov	517-284-6519

Operator Certification

- R 325.11906a Restricted certificates for existing operators. Rule 1906a
- R 325.11910 Application for examination; notice to accepted applicants of examination. Rule 1910
- R 325.11915 Renewal requirements. Rule 1915

Rule 1906a Restricted Certificates

- Language in (1), (2) and (3) is no longer applicable since Dec. 8, 2002 has passed.
- Paragraph (4) should be retained because it still allows the department, with the concurrence of the advisory board, to issue restricted certificates on a case by case basis.

Rule 1910 Application for Examination

- Operator Certification Program would like to receive all applications 60 days before the announced examination date.
- No special deadline for Noncommunity WSS
- Due to implementation of fees, application processing time is longer.
- Would give more time to evaluate applications and issue notification not less than 15 days before the exam.

Rule 1915 Renewal Requirements

- All CWS operators (level 1-4) must meet the minimum continuing education training hours categorized as “technical,” “managerial,” or both.
- The statement associated with the “*” in Table 1 is no longer applicable and can be deleted since it is beyond the 3 year renewal cycle of the effective date of the rule.

Asset Management (AM) Proposal for new rules

- AM defined
- Benefits
- Existing requirements (Part 16, Act 399)
- Components of an AM Plan
- What are we proposing?

What is Asset Management?

- AM is defined as maintaining a desired level of service with the lowest life cycle costs for rehabilitating, repairing, or replacing an asset.
- AM is implemented by developing an Asset Management Plan

Benefits of AM

- Setting rates based on sound operational and financial planning
- Meeting service expectations and regulatory requirements
- Prolongs asset life through efficient and focused O&M
- Capital improvement plans meet the true need of the system

Existing AM requirements

- Existing components of AM
 - Water main inventory
 - Capital Improvement Plan by 2016
- Applies to those providing fire protection (R325.11605)
- Applies to publicly owned/operated systems (R325.11606)

Proposed Components of AMP

- Asset inventory
- Level of service
- Criticality assessment
- Life cycle costs
- Long term funding
- Capital improvement plan

Why develop AMP's now?

- EPA encouraging AM thru Capacity Development Program
- SAW grants/ WRD permit conditions encouraging/requiring Asset management
- Funding Gap
- Often an issue for non-compliant systems

Questions and Comments

- Any questions ?
- Comments needed prior to drafting rules

- Jason Berndt 517-284-6513;
berndtj1@michigan.gov

- Jean Shekter 517-284-6519;
shekterj@michigan.gov

Revised Total Coliform Rule

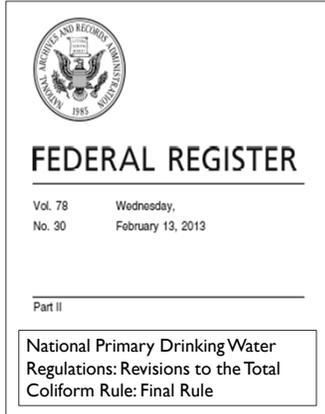
Pat Cook & Carrie Monosmith
Office of Drinking Water & Municipal Assistance

May 29, 2014
Stakeholder Meeting



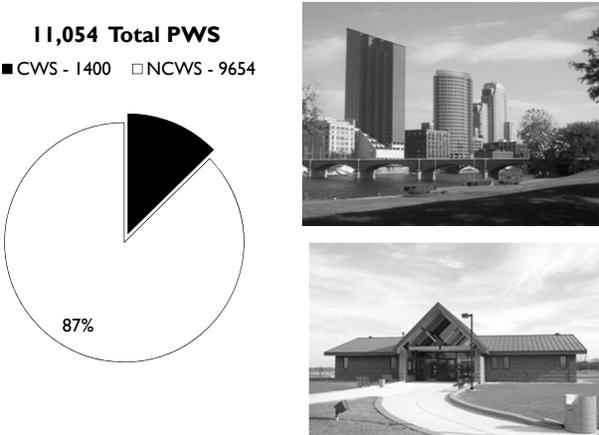
Revised Total Coliform Rule (RTCR)

- Published in Federal Register on 2/13/13
- Applies to all Public Water Supplies
- Compliance date is April 1, 2016



MI Public Water Supply Inventory

11,054 Total PWS
■ CWS - 1400 □ NCWS - 9654



Category	Count	Percentage
Community Water Supply (CWS)	1,400	13%
Non-Community Water Supply (NCWS)	9,654	87%
Total PWS	11,054	100%

New Definitions

- **Clean Compliance History** – a record of no MCL violations, no monitoring violations, no coliform treatment technique trigger exceedances or treatment technique violations.
- **Level 1 & Level 2 Assessments** – evaluations to identify the possible presence of sanitary defects, defects in distribution system, TC monitoring practices, and if possible the likely reason the system triggered the assessment.
- **Sanitary Defect** – a defect that could provide a pathway of entry for microbial contamination into the distribution system or that is indicative of a failure or imminent failure in a barrier that is already in place.
- **Seasonal System** – a NCWS that is not operated as a PWS on a year-round basis and starts up and shuts down at the beginning and end of each operating season.

Key Monitoring Provisions of RTCR

- Maintains the routine sampling structure of TCR
 - # samples collected still based on population served
- Reduces the required number of repeat and additional routine samples for GW systems ≤1,000 in population
 - Will not need to collect 4th repeat sample
- Allows systems to modify repeat sampling protocol
 - Can change repeat sample locations if approved by regulatory agency
- Systems are still responsible for developing sample site plans which the regulatory agency reviews and approves

Major Differences

<ul style="list-style-type: none"> • Existing TCR • Nonacute MCL for Total Coliform when >5% of monthly samples TC positive (but not E.coli). No assessment or corrective action required • Acute violation based on E. coli and fecal coliform • Public notice (PN) required for monthly TC and acute E. coli/fecal violations 	<ul style="list-style-type: none"> • New RTCR • Replaces nonacute TC MCL with a Treatment Technique requirement. An Assessment and corrective action required based on monitoring results • Acute violation based on E. coli only • PN required for failure to perform assessment within 30 days or correct contamination pathways and for all acute E. coli violations
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Routine Bacti Monitoring

- # samples required still based on population served
- Surface water sources and GW > 1,000 people must sample monthly
- GW systems ≤ 1,000 people must monitor as follows unless granted reduced frequency
 - CWS: 1 sample per month
 - Seasonal NCWS: 1 sample per month
 - Non-seasonal NCWS: 1 sample per quarter

DEQ Plans for Reduced Monitoring Frequencies for GW ≤ 1000

System Type	RTCR Baseline	Increased	Reduced	RTCR Transition
CWS	1/month	NA	1/quarter	DEQ not allowing quarterly monitoring (same as TCR rule)
NCWS Non-Seasonal	1/quarter	1/month	1/year	Same frequency as under the TCR For annual: Site visit or Level 2 Assessment in 1 st and subsequent years
NCWS Seasonal	1/month when open	NA	1/quarter or 1/year	For quarterly: identify vulnerable period for monitoring For annual: identify vulnerable period for monitoring and Site Visit or Level 2 Assessment in 1 st and subsequent years

NCWSs on reduced (decreased) monitoring remain on that schedule unless they trigger more frequent monitoring or are otherwise directed by the state.

Systems taking <5 Routine samples per month

TCR	RTCR
Must take at least 5 routine samples in the month after a TC+ sample.	Systems must only take their usual number of samples the month following a TC+.

For NCWS's monitoring quarterly or annually:
Must collect at least 3 routine samples the month following one or more TC+ samples

Repeat Samples

- ALL PWSs of any size will need to collect 3 repeat samples for each TC+
- GW systems collecting 1 routine sample a month will only have to collect 3 repeat samples for each TC+
 - Under TCR, 4 resamples required



Repeat Monitoring Timing

- Must collect all repeats within 24 hours of notification and all on the same day
 - 3 repeat samples are needed for each TC+ routine sample
 - - states may extend the 24 hour time frame
- Systems with single service connection may be allowed to:
 - Collect over a 3-day period
 - Collect a larger volume container(s) of any size as long as the total volume collected is at least 300mL

Repeat Sample Locations

- PWS can collect repeat samples using the same procedure as in the TCR
 - 1 at original location
 - 1 within 5 service connections upstream
 - 1 within 5 service connects downstream
- OR
- PWS can specify in their sample siting plan either fixed alternative locations or criteria for selecting sites on a situational basis via a standard operating procedure

Disinfectant Residual Samples

Disinfection Byproduct Rules:

- Chlorinated systems must monitor disinfectant residuals at same time and place as total coliforms are sampled
- Monitoring necessary to demonstrate compliance with chlorine/chloramine Maximum Residual Disinfectant Levels (MRDLs)



RTCR Monitoring and the Ground Water Rule (GWR)

RTCR & GWR

- A GW system must conduct triggered source water monitoring under the GWR if a routine sample collected under the RTCR is TC+
- Must collect at least 1 sample from each source in use at the time the TC+ sample was taken
 - Within 24 hours of being notified of TC+ sample
 - Must be analyzed for the state approved fecal indicator (E. coil)

Dual Purpose Samples – RTCR Repeat Samples at GWR Location

- States may allow systems to take one of the required RTCR repeat sample at the triggered source water monitoring location to meet requirements of both the GWR and RTCR
 - Single well systems only
- DEQ does not plan on allowing this option
 - Systems will have to collect 3 repeat samples from distribution system for each TC+ for RTCR
 - Collect 1 sample from each source for each TC+ for GWR

Sampling Site Plans

- Systems must develop and adhere to a sample siting plan and a system-specific schedule
- Must develop no later than March 31, 2016
- Subject to state/LHD review & revision



Sample Siting Plan Components

- Sampling locations
 - Must be representative of the water in the distribution system
 - Routine & repeat monitoring locations must be shown
 - Must show all applicable GWR monitoring sites
 - Collection Schedule



Why drop the Total Coliform MCL?

- “Many of the organisms detected by total coliform methods are not of fecal origin and **do not have any direct public health implication.**”
- “Total coliforms in the distribution system **may indicate a potential pathway for contamination but by themselves do not indicate a health threat.**”



E. Coli MCL Violations

E. coli MCL Violation occurs with any of these sampling set combinations:

Routine Sample	Repeat Sample
EC+	TC+
EC+	Any missed repeat sample
TC+	EC+
TC+	TC+ (no <i>E. coli</i> analyzed)

Remember that failure to conduct repeat monitoring automatically triggers a Level 1 or Level 2 Assessment

Assessments

- Applies “find and fix” approach to possible contamination
- Systems must conduct a basic assessment (Level 1) or a more detailed assessment (Level 2) depending on the severity and frequency of contamination
- Purpose is to identify sanitary defects that cause contamination



Sanitary Defects

Sanitary defect is a defect that could provide a pathway of entry for microbial contamination into the distribution system

- Holes in storage tanks
- Breaks in pipes
- Cracks in well seals or casings



Assessments - Level 1 Triggers

- When more than 5% of monthly samples are TC positive
- Failure to collect the correct # of repeat samples after TC+
- Can be completed by system owner or operator



Assessments – Level 2 Triggers

- When E. coli MCL violation occurs
- Second Level 1 trigger within a 12 month period
- Must be done by party approved by state
 - DEQ or LHD staff



LI & L2 Assessments

- Must be completed and submitted within 30 days
 - Should be done ASAP
- Goal is to identify possible avenues of contamination
 - Corrective Actions must be complete with 30 days OR must have an approved compliance schedule to correct the problems
- Failure to complete or do Corrective Actions is TT violation



Level of Effort – Level 1 vs. Level 2

- **Level 1:**
 - Conducted by the PWS
 - Primarily completed using existing data
 - May include limited inspections or interviews
- **Level 2:**
 - More comprehensive review of existing data
 - May include field investigations, additional sampling, and inspections
 - May involve consultation with additional parties
 - Assessment must be conducted by the state or party approved by the state

Analytical Methods

- Basically unchanged
- Must use approved labs
- All TC+ routine or repeat samples must be tested for E. coli
- E. coli is the only fecal indicator



Violations, Public Notification (PN), and Consumer Confidence Reports (CCR)

- Yes, there are requirements for:
 - Monitoring & Reporting Violations
 - Public Notices
 - CCRs



CWS Only issues

- ALL CWS's will continue to sample monthly
- No plans to allow RTCR repeat samples to count as GWR Triggered Source Samples
- Level 1 Assessments can be done by owner or operator
- Level 2 Assessments will be done by DEQ staff
- No plans to extend 24 hour time frame to collect repeat samples

Noncommunity Only Issues

- DEQ recommends that LHDs will determine whether or not a NCWS* under their jurisdiction can transition into the rTCR at their current monitoring frequency
- Each NCWS* transitioning into rTCR on an annual monitoring frequency must have an annual Level 2 Assessment
- NCWS program does not plan to allow rTCR repeat samples to count as GWR Triggered Source Samples
- Level 1 Assessment performed by the owner or operator; Level 2 Assessments by the LHD
- Will not extend 24 hour time period for repeats
- NCWS* with no distribution system will be allowed to collect a 300 ml repeat sample.

*NCWS ≤ 1000 using groundwater as the source

How do NCWS* Systems Get Reduced Monitoring?

- Can reduce from monthly to quarterly if:
 - A site visit or Level 2 Assessment was conducted within the last 12 months and all sanitary defects are corrected
 - Has a clean compliance history for the last 12 months
 - Has a protected source and meets construction standards
- Can reduce from quarterly to annually if:
 - Meets all of the above criteria, and
 - Adopts one or more additional enhancements to the system as a barrier to contamination

*NCWS serving ≤ 1000 using groundwater

How do NCWS Systems Get Increased Monitoring?

- Increases from annual to quarterly monitoring the quarter after the system has one RTCR monitoring violation
- Increases from quarterly or annual to monthly monitoring the month following any of these events:
 - Triggered Level 2 assessment or a 2nd Level 1 assessment in a rolling 12 months
 - E. coli MCL violation
 - Coliform TT violation
 - For a system on quarterly monitoring, two RTCR monitoring violations, or one RTCR monitoring violation and one Level 1 assessment, in a rolling 12 months

Seasonal Systems

- By definition a PWS that serves water a portion of the year or shuts-down a portion of the system for part of the year
 - ~ 1750 in Michigan
- Must follow an approved start-up procedure prior to serving water to the public and certify that it was followed



Seasonal System Requirements

- Must monitor monthly for all months they are in operation, unless reduced criteria is met
 - DEQ and LHD recommend quarterly sampling as a minimum
- If monitoring less than monthly, the system must sample during high vulnerability periods as designated in their approved sample siting plan
- Note: Seasonal systems that transition into RTCR at quarterly or annual monitoring must have a sample siting plan approved **PRIOR** to April 1, 2016 that designates the time period for monitoring

RTCR - Summary

- 2 years until it takes effect
April, 2016
- DEQ taking steps to adopt RTCR into Act 399
- Guidance documents and Assessment forms will be prepared
- Stay tuned!



Operation Oversight

- Current Rules
 - R325.10106(n) defines Operator In Charge (OIC) as a properly certified operator who is designated by the owner of a public water supply as the responsible individual in overall charge of a waterworks system, or portion of a waterworks system, who makes decisions regarding the daily operational activities of the system that will directly impact the quality or quantity of drinking water.

Operation Oversight

- Current Rules
 - R 325.11905(1) requires a system to be under the supervision of an operator in charge (OIC) certified in system classification as specified in these rules.
 - R 325.11905(9) requires water supplies to have in place a plan for proper operation of the waterworks system when the operator in charge is not available.

Operation Oversight

- Current Rules (continued)
 - R 325.11905(3) requires a (certified) shift operator be on site and in charge of each operating shift at a community supply in the F classification when the operator in charge is not on site.
 - R 325.11905(4) allows the DEQ to waive the requirement for a shift operator to be on site for each operating shift upon approval of an operational plan submitted by the supply that demonstrates that public health will be adequately protected when a certified shift operator is not on site.

Operation Oversight

- Rule 325.11905 (7), (8) & (9) Back up Operators and Back up Operations Plan
 - For D-1&2 and S-1&2 Systems, required to have a designated back up operator that holds a D-4 or higher or an S-4 or higher.
 - For all lower levels of D & S systems, required to have a plan in place that identifies person responsible (doesn't have to be certified).
 - For F- plants, not required unless they do not have properly certified shift operators present.

Operation Oversight

- Issues
 - What does “under the supervision” mean?
 - What does “daily” mean?
 - Unanticipated “transition periods?”
 - Standard Operating Practice vs. Interim Operation (Unanticipated transitions)?
 - Expansion of Contract Operations?
 - How many systems/treatment plants can or should be covered by one OIC for F? D? S?

Operation Oversight Policy

- Current Policy defines “Daily” as at least 5 days a week unless otherwise specified
- What about the increased acceptance of alternate work weeks? 4 – 10 hour days or even 3 – 12 hour days?
- Should something be in rule so it can be enforced?

Operation Oversight Policy

- Policy separates approach by classifications – F, D, S, & in some cases, by size – 1,2,3,4 & 5.
- Not intended for systems where an employee is the OIC.
- Differentiates between OIC that is under contract for a lengthy period vs. an OIC that is intended to cover a transition period.

Standard Operation for F-Plants

- Current policy says the requirement for an OIC **employed** (under contract) by the system to visit each surface WTP daily **may be reduced** if there is a plan in place for proper operation of each WTP when the OIC is not on-site.
- For F-5 WTPs with an acceptable **Operations Plan**, visit frequency may be reduced to weekly if approved by DEQ/LHD. This approval should be in writing & based on acceptable plan.

Operation Oversight Policy

- This ***plan*** should include the methods of communication, off-site operation capabilities and the expected response time for the OIC to reach WTP in emergencies.
- This approval shall be in writing and re-assessed when the OIC leaves or if conditions require increased oversight.

Standard Operation for F-Plants

- In cases where an operator is providing OIC services by contract - the OIC shall make daily visits to each surface WTP, be on call 24 hours per day, and supervise or direct staff responsible for daily operations. For these situations, ***daily means 5 days week, 4 hours per visit.***

Interim Operation for F-Plants

- To provide supply time to recruit a replacement or promote a staff member
- Must retain a temporary OIC certified at the proper level to ***visit WTP daily*** and be responsible for daily operation.
- Differentiates between Standard and Interim arrangements.

Interim Operation for F-Plants

- Interim Operation may only be considered if ALL of the following apply:
 - The OIC leaves abruptly.
 - The supply cannot or does not immediately appoint an OIC from existing employees.
 - The supply has an operator with acceptable experience to conduct daily operations under the supervision of the temporary (Interim) OIC (Certified Shift Operators except for F-5) .

Standard Operation for D-Plants

- For D-1, 2 & 3 Systems:
 - OIC Employed by Supply, makes ***Daily*** visits to treatment plants, on call 24 hours per day, direct staff responsible for daily operations.
 - If an acceptable Operations Plan is in place, visit frequency may be reduced to ***twice a week***.
 - CI2 and CI2/PO4 systems may be reduced to ***once a week*** with DEQ approval.

Standard Operation for D-Plants

- For D-4 and D-5 Systems
 - OIC Employed by Supply, makes ***Weekly*** visits to treatment plants, on call 24 hours per day, direct staff responsible for daily operations.
 - If an acceptable Operations Plan is in place, visit frequency may be reduced to ***2/month***.
 - D-5 may be reduced to ***1/month***.

Interim Operation for D-Plants

- For D-1, 2 & 3 Systems:
 - To provide supply time to recruit a replacement or promote a staff member
 - Must retain a temporary OIC certified at the proper level to ***visit WTP weekly*** and be responsible for daily operation.

Interim Operation for D-Plants

- Interim Operation at D-1, 2 & 3 systems may only be considered if ALL of the following apply:
 - The OIC leaves abruptly.
 - The supply cannot or does not immediately appoint an OIC from existing employees.
 - The supply has an operator with acceptable experience to conduct daily operations under the supervision of the temporary OIC

Interim Operation for D-Plants

- Interim Operation for D-4 & D-5 Plants
 - Same as Standard Operation:
 - OIC Employed by Supply, makes Weekly visits to treatment plants, on call 24 hours per day, direct staff responsible for daily operations.
 - If an acceptable Operations Plan is in place, visit frequency may be reduced to 2/month.
 - D-5 may be reduced to 1/month.

Standard Operation for S – Systems

- For S-1, 2 & 3:
 - OIC Employed by Supply, makes Daily visits to water system, on call 24 hours per day, direct staff responsible for daily operations.
 - If an acceptable Operations Plan is in place, visit frequency may be reduced to once a week.

Standard Operation for S – Systems

- For S-4 Systems:
 - OIC Employed by Supply, makes twice a month visits to treatment plants, on call 24 hours per day, direct staff responsible for daily operations.
 - If an acceptable Operations Plan is in place, visit frequency may be reduced to 1/month.

Standard Operation for S – Systems

- For S-5 Systems:
 - OIC Employed by Supply, makes once a month visits to treatment plants, on call 24 hours per day, direct staff responsible for daily operations.
 - If an acceptable Operations Plan is in place, visit frequency may be reduced to 1/quarter.

Interim Operation for S – Systems

- For S-1, 2 & 3 Systems:
 - To provide supply time to recruit a replacement or promote a staff member
 - Must retain a temporary OIC certified at the proper level to visit System weekly and be responsible for daily operation.

Interim Operation for S – Systems

- Interim Operation at S-1, 2 & 3 systems may only be considered if ALL of the following apply:
 - The OIC leaves abruptly.
 - The supply cannot or does not immediately appoint an OIC from existing employees.
 - The supply has an operator with acceptable experience to conduct daily operations under the supervision of the temporary OIC

Interim Operation for S – Systems

- For S-4 & S-5 Systems:
 - Same as Standard Operation