

# SAMPLES AND SAMPLE SCHEDULES

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# Agenda

- Basics of plan review samples
- Special samples
- Sample invalidation
- Making changes to chemical schedules

# Plan Review samples

- ▣ What samples will be required depends on many factors:
  - System type
  - Water type
  - What is the plan review for?
  - If new source, how will this be added to the system (New or existing EP)?
  - What existing facilities (especially sources) does the system already have?
  - Is system up-to-date on monitoring?

# Plan Review samples

- ▣ Where are these samples collected?
  - If samples are for a new source(s) then the sample(s) will need to be raw water samples.
  - If for new treatment, the samples will be after treatment . Occasionally both raw and treated will be required.

# Plan Review samples

Do Chemical samples count for compliance?

**MAYBE**

# Plan Review samples

Do chemical samples count for compliance?

- If treated and normal operating conditions
  - Yes
- For raw source water samples:
  - Only active source on entry point and treatment (if any) would not change the result?
    - Yes
  - Other active sources on entry point or treatment would affect result?
    - No

# Questions

# What is a “Special” sample? OAR 333-061-0036 (1)(h)(C)

These are samples collected to supplement routine monitoring samples and are not required to be reported to the Authority. Samples of this type are not considered representative of the water system and are outside the scope of normal quality assurance and control procedures and/or the established compliance monitoring program. Special samples include, but are not limited to, samples taken for special studies, user complaints, post construction/repair disinfection, sources not in service and raw water prior to treatment, except as required by this rule.

# Characteristics of a special sample

- ▣ Supplement routine monitoring samples
- ▣ Not considered representative
- ▣ Outside the scope of normal quality assurance and control procedures
- ▣ Outside the established compliance monitoring program
- ▣ **Determined at time of sample collection**

# Examples of Special Samples

“Include, but are not limited to”

AND

Except required monitoring

- ▣ special studies
- ▣ user complaints
- ▣ post construction/repair disinfection
- ▣ sources not in service
- ▣ raw water prior to treatment
- ▣ **Seasonal startup (RTCR)**

# How to see Special samples

- Generally we only see Coliform Special samples
- Special samples are not required to be turned in. What we display are those that were.

< Up :: DWS Home :: Quick Data Links

Special, TG=Triggered, [Show special samples](#)

1, 2015    1    **SP** Total    Absent-3011308581    HOSPITAL HYD    **DIST-A**    0.02    Feb

# Can I change the sample type?

- ▣ Q: I took this special sample to see how my water was doing. It was clean (Absent) so can I change it to a routine now?
- ▣ A: No
  
- ▣ Q: My result was Present but I don't think it was representative. Can I change it to a special instead and just resample?
- ▣ A: Generally No – There needs to be a very good & clear cut reason to change it.

# Questions

# Sample invalidation

- ▣ Chems:
  - There is nothing in the rules that allows for chemical result invalidation.
  - Only way to invalidate is due to a lab error
- ▣ Coliform
  - Distribution : OAR 0036 (6)(j)
    - 3 ways
  - Source: OAR 0036 (6)(x)
    - 2 ways
- ▣ LCR
  - OAR 0036 (2)(c)(E)(i)

# Coliform invalidation

Either Source or Distribution:

- ▣ Lab error – requires statement from the lab.
- ▣ “Substantial evidence “ that the results are not reflective of source/distribution.
  - Final approval by DMCE manager

Distribution only:

- ▣ Repeat at same location is present all other repeats are absent.
  - Final approval by DMCE lead worker or manager

# Comparison

## SUBSTANTIAL EVIDENCE

- ▣ All repeats are needed before determination
- ▣ If approved, Triggered and temp routine schedules are removed (Unless there is another positive result)
- ▣ If approved, repeats “replace” the positive routine – no replacement needed

## REPEATS

- ▣ All repeats are needed before determination
- ▣ If approved, Triggered and temp routine schedules are removed (Unless there is another positive result)
- ▣ If approved, Routine and repeats are removed – need a replacement sample

# LCR invalidation

- ▣ Criteria:
  - Lab error
  - Sample container damaged (info from lab)
  - Substantial reason that sample(s) were tampered with
  - Site did not meet selection criteria
    - ▣ Unrepresentative
    - ▣ Wrong location
  - Sample was not collected properly
    - ▣ Residence time
    - ▣ Hot water tap

# Invalidation Process

- ▣ Submit written request to DMCE unit
  - Email OK but NOT a contact report
  
- ▣ If questions, Tech services is asked if they agree
  - work with them first!
  
- ▣ For LCR invalidations:
  - If approved, system needs to sample both Lead & Copper – not just the one that was high – within 20 days!
  - Sample is rejected at time of approval. Recalculation of 90% will occur that night. A second recalculation is needed after replacement sample is received and entered.

# Notes about chemical schedules

- ▣ Currently DMCE only reviews/changes chemical schedules without your review in 2 circumstances.
  - Corrosion control exceeded 9 excursions in 6 months – changes 90% schedule to 6-months.
  - RADS (community only) on Quarterly schedule and ready for reduction.
- ▣ All other schedule changes need to be done by the regulating agency.
  - Surveys (commonly qualify for reduced)
  - Alerts (commonly go to quarterly schedule)
  - Request from system to review

# Schedule change process

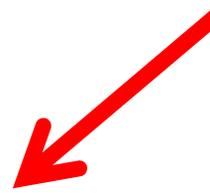
- ▣ If change is noted in a survey then the survey is only documentation needed
- ▣ For changes done outside the survey fill out the schedule change form – do not put into a contact report .
- ▣ End dates are for when to close current schedule. We don't open and close the new schedule (even to make the next one)
  - Exception: already have met the requirements for closing this schedule to move to a reduced schedule – just needed for documentation of process

# Adjusting chem schedules

## Drinking Water Resources for Partners

### Quick Reference

- **Contact Reports:** fillable MS Word -or- printable PDF
- **2014 Department of Agriculture Contract (pdf)**
- **Contract/Program Elements:** County/Ag Responsibilities (pdf)
- **2013 Fall/Regional Training:** Audio recording now available

- **Inventory Updates** 
- **Water System Surveys**
- **Compliance Resources**
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- **Program Elements**
- **EPA Staff Resources**

# Adjusting chem schedules

## Inventory Updates

- Chemical and Bacteriological Monitoring Schedule Change Form [fillable MS Word -or- printable PDF](#)
- [Treatment Codes \(pdf\)](#)
- Entry Structure Diagram:
  - *Refer to the treatment code list (above) when filling out this form.*
  - [PDF: Entry Structure Diagram \(includes drawing grid\)](#)
  - [Fillable MS Word \(2 parts\): Entry Structure Form and Drawing Grid](#)
- [Plan Review Routing Form \(pdf\)](#)
- Source Information: [fillable MS Word -or- printable PDF](#)
- [Water System Information \(doc\)](#)

# Chemical change form

- Basic system info and who is filling out change form.



## Chemical & Bacteriological Monitoring Schedule Change Form OHA Drinking Water Services

System  PWSID# 41

Contact with  Phone (  )  -  County

Staff Member  Agency:  Date

**System Type:**  Community (C)  Non-Transient Non Community (NTNC)  Transient Non-Community (NC)  State Regulated (NP)

Check if New System or Sample Pt:

For new systems, include all necessary chemicals and sampling points.

# Chemical change form

**Entry Point ID** (In SDWIS Entry Pt ID "A" will appear as Facility ID "EP-A", Entry Pt ID "B" will appear as "EP-B" etc.)

Sample Point ID (Entry Pt ID or SRC Sampling Point ID)	Code/Chemical/Analyte  See reverse for complete list of chemical groups and analyte codes	Frequency									Begin Date	End Date (Leave blank unless closing a previous schedule)
		Once	Monthly	Quarterly	Yearly	Once Every 3 Years	Twice Every 3 yrs	Once Every 6 Years	Once Every 9 Years			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/ /	/ /

- Most common errors are with begin dates.
  - If new system/facility then generally current monitoring period.
  - Quarters start on January, April, July or October 1<sup>st</sup>
  - All yearly schedules start on January 1<sup>st</sup>
  - 3-, 6-, 9- years start on January 1 in the years 2011, 2014, 2017, 2020 etc. after they qualify for reduction.

# Chemical change form

**Distribution Sampling Point ID** (In SDWIS Distrib. Sampling Point "A" will be identified as: Facility ID "DIST-A")

(DBP Sample Points must include peak month that sampling is required in and sample location)

**New Schedule**

**Schedule Reduction**

**Schedule Increase**

DBP2 TTHM HAA5 LCR ASBD or TCR	DIST-A or IDSE-01 2DBP-01, etc.	Sample Site ID or Street Address (Enter for DBPs only. This address will be used to tie sample results to the site)	# Samples Required	Monthly	Quarterly  <i>For DBP Indicate Peak Month Below</i>	Semi Annual	Yearly  <i>For DBP Indicate Peak Month Below</i>	Once Every 3 Years  <i>For DBP Indicate Peak Month Below</i>	Once Every 6 Years	Once Every 9 Years	Begin Date	End Date
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> / /	<input type="checkbox"/> / /

- ❑ LCR – Starts on January 1<sup>st</sup> of any year – all others on 3-, 6-, or 9- year follow same as EP
- ❑ DBP – identify location(s) to sample at and peak month to sample in (if quarterly every 3 months from that month)
- ❑ LCR and DBP - # required is based on population and standard or reduced monitoring.

# Chemical change form

## Filtered and Raw Water TOC and Alkalinity Schedules for Water Treatment Plants ("WTP-A" for example)

### 2.5 log Conventional Plants (optional for 2.0 log plants for DBP reduction)

(TOCA schedules should be set for the Common Header [CH-] and 2920 schedules should be set for the Water Treatment Plant [WTP-])

█	TOCA	Monthly =>	<input type="checkbox"/>	Quarterly =>	<input type="checkbox"/>	█/█/█	█/█/█
█	TOC, 2920	Monthly =>	<input type="checkbox"/>	Quarterly =>	<input type="checkbox"/>	█/█/█	█/█/█

Comments: █

Signature: \_\_\_\_\_

Date: █ \_\_\_\_\_

- ▣ Used for surface water plants and DBP systems wanting to go to reduced monitoring

## Tips when adjusting chemical schedules

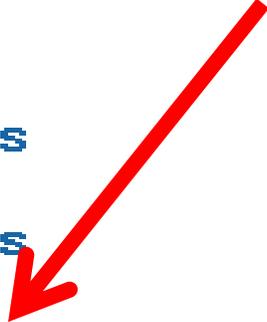
- ❑ Make sure they qualify for the reduction before changing the schedule
- ❑ RAD schedule changes – Except when changing to quarterly, the new schedule start date is the after the monitoring period for the sample causing the change – Use chem schedule details to help with that.
- ❑ If in doubt – look up what the right start date is for the standard monitoring framework

# Standard Monitoring Framework

## Drinking Water Resources for Partners

### Quick Reference

- **Contact Reports:** fillable MS Word -or- printable PDF
- **2014 Department of Agriculture Contract (pdf)**
- **Contract/Program Elements:** County/Ag Responsibilities (pdf)
- **2013 Fall/Regional Training:** Audio recording now available

- **Inventory Updates**
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# Standard Monitoring Framework

## Monitoring Resources

- [Chemical Monitoring Schedules for Community and Non-Transient Non-Community groundwater systems \(pdf\)](#)
- [Standard Monitoring Framework \(pdf\)](#) 
- [Alerts: What to Do With Chemical Detections \(pdf\)](#)
- [Arsenic Testing and Follow-up at TNC and State-Regulated Water Systems \(pdf\)](#)
- Lead and Copper Rule:
  - [County Responsibilities When a Lead and/or Copper Action Level Is Exceeded \(pdf\)](#)
  - [Sample Site Identification and Certification \(Form 141-A\) \(pdf\)](#): To change an existing sampling site, use only the final section of this form on page 3.

## Standard Monitoring Framework

Use these standard monitoring periods for: DBP, Arsenic, Nitrite, IOC, SOC, VOC and RAD schedules.

Lead and Copper (LCR) do not follow the Standard Monitoring Framework. 3-year schedules start any year on January 1st. 6-month & yearly schedules follow the schedule start dates at the bottom of the page.

3 Year Period																				
2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
... End of prev 6 year			6 year monitoring period																	
6 year monitoring period			6 year monitoring period			6 year monitoring period			6 year monitoring period			6 year monitoring period			Start of next 6 year...					
... End of prev 9 year			9 Year Monitoring Period																	
... End of prev 9 year			9 Year Monitoring Period			Start of next 9 year...														
9 Year Monitoring Period			9 Year Monitoring Period			9 Year Monitoring Period			9 Year Monitoring Period			9 Year Monitoring Period			Start of next 9 year...					

### Schedule Start Dates (all groups)

Quarterly schedules start on January, April, July or October 1st of the quarter they need to start monitoring.

6-month schedules (LCR) start on January or July 1st.

Annual schedules start on January 1st of the first year they need to monitor.

Except for LCR as noted above - All 3- year monitoring periods start on January 1st of the unhighlighted years above. The start date is the beginning of the next 3-year monitoring period after they qualify for reduction.

6-year and 9-year schedules also start on January 1st coinciding with one of the 3-year periods. The start date is the start of the next 3-year monitoring period after they qualify for reduced monitoring.

# Questions

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