

**OPERATORS ROUND TABLE
DU PAGE PUMPING STATION
October 18, 2019
9:00 AM**

Status of DuPage Water Commission

The Commission's sales for the month of September were a total of 2.21 billion gallons. This represents an average day demand of 73.8 million gallons per day (MGD), which is lower than the September 2018 average day demand of 76.2 MGD. The maximum day demand was 83.4 MGD recorded on September 11, 2019, which is lower than the September 2018 maximum day demand of 85.5 MGD. The minimum day flow was 65.7 MGD.

The Commission's recorded total precipitation for the month of September was 7.72 inches compared to 3.60 inches for September 2018. The level of Lake Michigan for September 2019 is 581.6 (Feet IGLD 1985) compared to 580.38 (Feet IGLD 1985) for September of 2018.

Water Conservation

Update: Staff worked with the Villages of Clarendon Hills and Westmont on the design of the Richmond Education Gardens & Apiary underground cistern system that the Commission helped sponsor. Brick will likely be installed early fall. Once the bricks have been installed, they will prepare plant beds for landscaping in spring 2020. Last week over 10 gallons of honey was harvested from the apiary. Also, they are beginning to organize new volunteers, including several eagle scout candidates, to begin construction of the Gardens entry bridge, garden boxes, and classroom pergola. All underground work, including the installation of the cistern, has been completed. The goal is to have the project substantially completed in spring 2020. The stormwater harvesting system will be completed before the end of this month.

Bartlett Water Service

Staff held a meeting with Village of Bartlett and Benchmark to expedite the restoration and punch-list items for the TW-3 pipeline project. A final project close-out is expected for October.

New Customers

The Commission has been approached by the city of Joliet and the Village of Shorewood about providing water service to each community.

Pipeline Maintenance

Pipeline staff continues inspection and repair work on distribution system blow off valves.

Staff will be begin replacing valve stem riser in the coming months.

Capital Improvement Program

Ongoing: CDM Smith, Inc. continues engineering services for DuPage Pump Station and Administration Buildings rehabilitation which includes replacement of the Curtain Wall, replacement of the walls which surround the Commonwealth Edison Yard, and to remediate groundwater penetration through the West Discharge Tunnel. There have been design changes requested by Staff which are being addressed by the Engineer.

The Contract for the Construction of DuPage Pump Station Sodium Hypochlorite System Improvements (Contract PSD-18/19) is currently out for bids. The project includes replacement and upgrading of chemical storage and feed equipment, containment finishes, process piping, and wall finishes which are deteriorating naturally due to age and environmental conditions. A mandatory pre-bid meeting is scheduled for October 23rd and the bid opening is scheduled for November 6th.

The Contract for the Construction of Tank Site Improvements (Contract SS-9/19) is currently out for bids. The project includes replacement and safety upgrading of control vault structures, improvement overland drainage, rehabilitation and improvement security fencing and the rehabilitation and addition of paved surfaces. A pre-bid meeting is scheduled for October 23rd and the bid opening is scheduled for November 20th.

Instrumentation / Remote Facilities Overview

Instrumentation staff continues with routine inspections and repairs of remote facilities.

Security

The Commission has begun a review and update to the VA to incorporate new facilities and updates to the system since 2003. The Commission will incorporate all the requirements included in the America's Water Infrastructure Act (**AWIA**) signed by the President on October 23, 2018. It should be noted that the USEPA is planning to publish guidelines to assist water systems to be in conformance with the AWIA in August 2019.

The Commission has completed the installation of new electronic padlocks and door locks at all the Commission remote facilities. The commission has completed working on replacing the locks at the Elmhurst Pump Station.

It is imperative that all Commission's padlocks at the metering stations are not locked out of the loops. The Water Purchase Agreement requires the Commission to have access to all metering stations at any time.

Winter Operations

With the summer demand around the corner, we need to start thinking about winter operations.

Make sure to keep the water moving in your elevated tanks to prevent any water quality problems.

Make sure the overflow drains and vents are clean and drain properly to prevent any freezing problems.

Vehicles and facilities are winterized.

Snow removal equipment is ready to go.

Salt inventories are in place.

You cannot exceed the 1.7 times allocation.

You must take water at a constant rate.

Manhole lids are in place.

Catch basins are clean.

Make sure your employees take the proper safety precautions when working in winter conditions, (Slip, Trips, and Falls, Back Strains, Sudden Storms, and Frostbite)

Meter Testing

Annual Customer Meter Calibration Program

The Becon customer portal is completed and up and running.

The commission updated the test rack PLC to interface with the new Sensus meters. Meter calibration will begin in the coming weeks.

The Commission is available to test the large customer meters. We can test 6" 8" and 10" turbine meters. Please contact John Schori at (630) 834-0100 if you have any questions concerning this service.

Regulations

Consumer Confidence Report (CCR) should have been sent out to customers by July 1, 2019, Certification of CCR's needed to be sent to the IEPA by October 1, 2019.

Please send a copy of your CCR to the Commission.

The regulatory update will be held on October 24th in Elgin

Changes to the minimum chlorine residual have been approved.

Section 604.725 Residual Chlorine

- a) A minimum free chlorine residual of 0.5 mg/L or a minimum combined chlorine residual of 1.0 mg/L must be maintained in all active parts of the distribution system at all times.
- b) Community water supplies must monitor chlorine residual to determine the amount and type of residuals existing at different points in the distribution system.
- c) Community water supplies must not mix water sources with free chlorine and combined chlorine residual.

Lead and Copper regulations

On October 10, 2019, the Environmental Protection Agency (EPA) released **proposed revisions to the Lead and Copper Rule (LCR)**. The attached **Reference Guide** summarizes the key differences between the current LCR and the proposed revisions. The LCR revisions focus on six key areas:

1. Identifying the areas most impacted
2. Strengthening drinking water treatment requirements
3. Replacing lead service lines
4. Increasing sampling reliability
5. Improving risk communication
6. Protecting children in schools and childcare facilities

Renewal Training

2/3 of renewal training must be comprised of technical training

Water Quality

The Commission is currently feeding chlorine with a discharge residual of about 1.0 mg/l

Water Rates

Water rate for 2019 \$4.97/1000 gallons

Drone Demo

The Commission has purchased a drone that can be used for inspection of Elevated tanks and reservoirs. Contact Denis Cuvalo for additional information

Other

The Commission invites you to view all Committee and Commission Agendas which can be found on our website at www.dpwc.org.

Please contact the Commission with any changes in water department personnel, phone and/or pager numbers. This is an important part of our ERP for system emergency purposes.

Please provide the Commission with a valid e-mail address. All meeting minutes will be distributed via e-mail.

The next Operators Round Table will be January 17, 2019 at 9:00 A.M. or before if events warrant.

Questions & Answers

AWWA

10/17/19 - New Water Main Inspection Strategies (Lombard) IEPA#13592

10/17/2019

Location: Lombard, Illinois Time: Check-in at 7:30 AM

10/22/19 - Hands on Water Quality Lab Testing (Highland Park) IEPA#13515

10/22/2019

Location: Highland Park, Illinois Time: Registration at 7:30 AM

10/24/2019 - Annual Regulatory Update (Elgin) IEPA #12133 PWST19-6906

10/24/2019

Location: Elgin, Illinois Time: Check-in at 7:15am

No Water - No Hockey 2nd Annual Charity Hockey Game

10/27/2019

Location: Chicago, Illinois

10/29/19 - Lagunitas Brewery - Water For People Fundraiser

10/29/2019

Location: Chicago, Illinois Time: 5:30 PM

11/07/19 - Meters & Metering Systems (Park Forest) IEPA13539 IDEM PWST19-6847

11/7/2019

Location: Park Forest, Illinois Time: Registration at 7:30 AM

11/08/19 Google Drive Training: A Mentoring Committee Event

11/8/2019

Location: Chicago, Illinois Time: Check in 10:30am

No Water No Hockey Night at the Blackhawks

11/17/2019

Location: Chicago, Illinois Time: 6:00 P

12/05/19-AWWA 21st Century Legal Challenges in the Water Sector (Chicago)

12/5/2019

Location: Chicago, Illinois Time: 8:00am - 4:30pm

01/07/20-03/31/20-Water Treatment O&M for A/B 12-wk Night Class (Westmont)

IEPA14504

1/7/2020 » 3/31/2020

Location: Westmont, Illinois Time: Check-in at 5:30 pm; Class from 6:00-9:00 pm

01/08/20-03/11/20-Water Dist Sys O&M for C/D 10-wk Night Class (Westmont)

IEPA#14196

1/8/2020 » 3/11/2020

Location: Westmont, Illinois Time: Check-in at 5:30 pm; Class from 6:00-9:00 pm

WATERCON2020

3/23/2020 » 3/26/2020

Location: Springfield, Illinois

If you have any comments concerning these issues or would like to have a topic discussed at the next Round Table Meeting, please feel free to email me at mcghee@dpwc.org.

Handouts:

1. DuPage Laboratory Bench Sheet for July 2019, August 2019, and September 2019
2. Lead and Copper Reference Guide
3. Wind Chill Chart
4. Safety Tips to Prevent Winter-Related Workplace Accidents

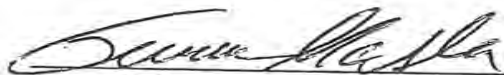
Village of Addison	Village of Itasca
James Russo	
Alberto Bruno	
Argonne Labs	Village of Lisle
Tad Jesionowski	John Valenti
Village of Bartlett	Village of Lombard
	Luke Sharp
Village of Bensenville	City of Naperville
	Pat O'Malley
	Joseph King
Village of Bloomingdale	Village of Oak Brook
Pay Maranto	Shawn Rice
Village of Carol Stream	City of Oak Brook Terrace
	Craig Ward
Village of Clarendon Hills	Village of Roselle
Joe Ferrel	
Collin Franco	
City of Darien	Village of Schaumburg
City of Darien	Village of Villa Park
Village of Downers Grove	Village of Westmont
David Moody	Mike Ramsey
DuPage County	City of Wheaton
Jim Joers	Al Mc Millen
	Alan Owens
City of Elmhurst	Village of Willow brook
Dan Rosenwinkel	Joe Coons
Tom Tapella	Andrew Passero
Village of Glendale Heights	Village of Winfield
Jeff McCumber	Ryan Jackson
Roman Cursini	
Village of Glen Ellyn	City of Wood Dale
John Hubsy	Alan Lange
	Piotor Grolzki
Village of Hinsdale	Village of Woodridge
	Mike Kaczmarek
Illinois American	

DUPAGE WATER COMMISSION LABORATORY BENCH SHEET
MONTHLY REPORT FOR JULY 2019

LEXINGTON SUPPLY

DUPAGE DISCHARGE

DAY	LEXINGTON SUPPLY		DUPAGE DISCHARGE								ANALYST
	FREE CL ₂ mg/l	TURBIDITY NTU	PO ₄ mg/l	FREE CL ₂ mg/l	TURBIDITY NTU	TEMP °F	pH	Fluoride	PO ₄ mg/l	P.A.C. LBS/MG	
1	0.96	0.06	0.56	0.78	0.08	62	7.6	0.8	0.56	0	CT
2	1.00	0.07	0.53	0.87	0.09	61	7.6	1.0	0.51	0	CT
3	0.88	0.06	0.52	0.88	0.08	61	7.7	0.8	0.53	0	RC
4	0.85	0.06	0.57	0.84	0.07	60	7.7	0.8	0.57	0	RC
5	0.85	0.08	0.55	0.85	0.07	61	7.7	0.8	0.56	0	RC
6	1.00	0.07	0.55	0.84	0.08	61	7.6	0.8	0.56	0	AM
7	1.10	0.06	0.53	0.86	0.08	61	7.6	0.8	0.58	0	AM
8	0.83	0.08	0.53	0.86	0.08	60	7.7	0.8	0.59	0	RC
9	1.02	0.08	0.60	0.94	0.09	65	7.7	0.8	0.58	0	RC
10	0.98	0.09	0.57	0.85	0.09	64	7.7	0.8	0.57	0	AM
11	0.93	0.09	0.54	0.81	0.10	66	7.6	0.8	0.50	0	AM
12	0.87	0.09	0.54	0.79	0.10	67	7.5	0.8	0.50	0	AM
13	0.84	0.12	0.59	0.74	0.14	68	7.5	0.8	0.56	0	KD
14	0.80	0.08	0.56	0.92	0.10	69	7.5	0.8	0.58	0	KD
15	0.98	0.09	0.57	0.95	0.10	68	7.4	0.8	0.55	0	AM
16	0.85	0.10	0.56	0.80	0.10	68	7.4	0.8	0.61	0	KD
17	0.98	0.09	0.56	0.85	0.10	68	7.4	0.8	0.59	0	KD
18	1.00	0.08	0.56	0.81	0.10	67	7.6	0.8	0.56	0	KD
19	0.82	0.10	0.58	0.85	0.10	65	7.7	0.8	0.64	0	KD
20	0.96	0.10	0.56	0.88	0.10	65	7.6	0.8	0.59	0	AM
21	0.98	0.10	0.55	0.90	0.09	64	7.4	0.8	0.61	0	AM
22	1.00	0.09	0.57	0.90	0.10	64	7.5	0.8	0.62	0	AM
23	0.87	0.08	0.57	0.82	0.09	64	7.5	0.9	0.57	0	CT
24	0.89	0.09	0.56	0.85	0.09	64	7.5	0.9	0.59	0	AM
25	1.00	0.08	0.55	0.86	0.10	66	7.4	0.9	0.56	0	AM
26	0.90	0.08	0.56	0.84	0.11	68	7.5	0.8	0.54	0	AM
27	0.91	0.09	0.55	0.86	0.10	68	7.5	0.8	0.56	0	KD
28	0.87	0.09	0.52	0.80	0.11	70	7.7	0.9	0.59	0	KD
29	0.97	0.10	0.57	0.88	0.11	68	7.7	0.7	0.51	0	KD
30	1.11	0.07	0.51	0.99	0.09	65	7.7	0.7	0.50	0	RC
31	0.86	0.09	0.54	0.95	0.09	63	7.6	0.7	0.53	0	KD
AVG	0.93	0.08	0.55	0.86	0.09	65	7.6	0.8	0.56	0	
MAX	1.11	0.12	0.60	0.99	0.14	70	7.7	1.0	0.64	0	
MIN	0.80	0.06	0.51	0.74	0.07	60	7.4	0.7	0.50	0	



Terrance McGhee
Manager of Water Operations

DUPAGE WATER COMMISSION LABORATORY BENCH SHEET
MONTHLY REPORT FOR AUGUST 2019

LEXINGTON SUPPLY

DUPAGE DISCHARGE

DAY	FREE CL ₂ mg/l	TURBIDITY NTU	PO ₄ mg/l	FREE CL ₂ mg/l	TURBIDITY NTU	TEMP °F	pH	Fluoride	PO ₄ mg/l	P.A.C. LBS/MG	ANALYST INT
1	0.96	0.08	0.51	0.87	0.09	62	7.6	0.7	0.52	0	KD
2	0.94	0.09	0.53	0.88	0.10	66	7.7	0.7	0.56	0	KD
3	0.96	0.08	0.53	0.85	0.11	68	7.6	0.7	0.54	0	KD
4	1.00	0.08	0.59	0.86	0.09	69	7.7	0.7	0.56	0	KD
5	0.94	0.08	0.56	0.87	0.10	69	7.6	0.7	0.54	0	KD
6	0.94	0.09	0.52	0.81	0.10	69	7.7	0.8	0.55	0	KD
7	0.89	0.08	0.54	0.87	0.10	68	7.6	0.7	0.56	0	KD
8	0.82	0.09	0.56	0.87	0.09	69	7.7	0.7	0.56	0	KD
9	0.91	0.10	0.54	0.85	0.09	68	7.7	0.8	0.57	0	RC
10	0.95	0.10	0.55	0.94	0.10	68	7.7	0.7	0.54	0	RC
11	0.81	0.11	0.53	0.79	0.11	69	7.7	0.8	0.54	0	RC
12	1.04	0.09	0.56	0.89	0.10	70	7.7	0.8	0.54	0	RC
13	1.00	0.10	0.56	0.85	0.10	69	7.7	0.7	0.58	0	RC
14	1.00	0.09	0.55	0.85	0.11	67	7.7	0.8	0.53	0	RC
15	1.03	0.10	0.54	1.07	0.10	65	7.6	0.7	0.57	0	RC
16	0.81	0.11	0.57	0.87	0.10	68	7.7	0.7	0.54	0	RC
17	0.91	0.10	0.55	0.75	0.10	69	7.7	0.8	0.57	0	RC
18	0.94	0.12	0.59	0.91	0.10	70	7.7	0.7	0.56	0	CT
19	0.92	0.10	0.54	0.84	0.11	72	7.7	0.7	0.52	0	CT
20	0.95	0.11	0.57	0.87	0.13	72	7.7	0.7	0.54	0	CT
21	0.91	0.12	0.53	0.91	0.12	72	7.7	0.7	0.54	0	CT
22	0.93	0.12	0.59	0.84	0.14	71	7.6	0.7	0.54	0	CT
23	0.94	0.13	0.57	0.80	0.12	72	7.7	0.7	0.52	0	CT
24	0.90	0.13	0.52	0.91	0.12	71	7.7	0.7	0.53	0	CT
25	0.95	0.10	0.55	0.95	0.11	70	7.7	0.7	0.55	0	AM
26	0.97	0.11	0.58	0.94	0.12	71	7.7	0.7	0.55	0	AM
27	0.94	0.14	0.61	0.90	0.12	72	7.6	0.7	0.46	0	CT
28	1.13	0.12	0.56	1.12	0.13	71	7.6	0.8	0.57	0	CT
29	0.79	0.13	0.59	1.01	0.10	65	7.6	0.7	0.55	0	RC
30	0.93	0.10	0.59	1.06	0.09	61	7.7	0.7	0.59	0	RC
31	0.98	0.10	0.56	1.04	0.10	62	7.7	0.7	0.54	0	RC
AVG	0.94	0.10	0.56	0.90	0.11	69	7.7	0.7	0.55	0	AM
MAX	1.13	0.14	0.61	1.12	0.14	72	7.7	0.8	0.59	0	
MIN	0.79	0.08	0.51	0.75	0.09	61	7.6	0.7	0.46	0	



Terrance McGhee
Manager of Water Operations

DUPAGE WATER COMMISSION LABORATORY BENCH SHEET
MONTHLY REPORT FOR SEPTEMBER 2019

LEXINGTON SUPPLY

DUPAGE DISCHARGE

DAY	FREE CL ₂ mg/l	TURBIDITY NTU	PO ₄ mg/l	FREE CL ₂ mg/l	TURBIDITY NTU	TEMP °F	pH	Fluoride	PO ₄ mg/l	P.A.C. LBS/MG	ANALYST
1	1.00	0.09	0.49	1.00	0.10	62	7.5	0.7	0.50	0	AM
2	0.95	0.10	0.53	1.02	0.09	62	7.7	0.7	0.57	0	RC
3	1.14	0.10	0.53	1.08	0.10	64	7.7	0.8	0.56	0	RC
4	1.00	0.09	0.51	1.00	0.09	63	7.6	0.8	0.54	0	AM
5	0.96	0.10	0.50	0.99	0.11	62	7.5	0.9	0.51	0	AM
6	1.00	0.08	0.57	1.00	0.09	62	7.4	0.8	0.52	0	AM
7	0.96	0.08	0.58	0.98	0.09	62	7.5	0.8	0.54	0	KD
8	0.93	0.08	0.62	0.94	0.09	62	7.6	0.7	0.57	0	KD
9	1.00	0.08	0.57	0.97	0.09	62	7.5	0.8	0.55	0	AM
10	1.00	0.09	0.59	1.00	0.10	64	7.5	0.8	0.55	0	AM
11	1.00	0.09	0.58	1.00	0.09	64	7.5	0.8	0.55	0	AM
12	1.10	0.09	0.59	1.10	0.09	62	7.7	0.8	0.54	0	KD
13	1.00	0.09	0.59	1.00	0.09	62	7.7	0.8	0.56	0	KD
14	1.00	0.08	0.58	1.00	0.10	61	7.5	0.8	0.58	0	AM
15	1.10	0.08	0.58	1.00	0.09	61	7.5	0.8	0.60	0	AM
16	0.98	0.10	0.60	1.00	0.10	63	7.5	0.8	0.57	0	KD
17	0.98	0.09	0.55	1.00	0.10	64	7.7	0.7	0.62	0	KD
18	1.10	0.09	0.59	1.10	0.10	63	7.5	0.8	0.63	0	AM
19	1.10	0.09	0.59	1.10	0.15	63	7.5	0.8	0.58	0	AM
20	1.00	0.10	0.58	1.00	0.09	63	7.5	0.8	0.59	0	AM
21	1.00	0.09	0.57	1.00	0.09	62	7.6	0.8	0.57	0	KD
22	1.10	0.09	0.55	1.00	0.09	60	7.7	0.8	0.52	0	KD
23	1.00	0.07	0.59	0.98	0.09	62	7.5	0.8	0.53	0	AM
24	1.10	0.09	0.55	1.00	0.08	60	7.5	0.8	0.56	0	AM
25	1.10	0.09	0.57	1.00	0.09	60	7.6	0.8	0.56	0	KD
26	1.10	0.09	0.58	1.10	0.09	60	7.5	0.8	0.59	0	KD
27	1.00	0.08	0.56	1.00	0.08	58	7.6	0.8	0.65	0	KD
28	0.81	0.07	0.62	1.00	0.12	60	7.7	0.8	0.63	0	CT
29	1.10	0.07	0.59	1.00	0.08	58	7.6	0.8	0.56	0	CT
30	0.95	0.08	0.56	1.00	0.11	57	7.5	0.7	0.63	0	KD
31										0	
AVG	1.02	0.09	0.57	1.01	0.10	62	7.6	0.8	0.57	0	
MAX	1.14	0.10	0.62	1.10	0.15	64	7.7	0.9	0.65	0	
MIN	0.81	0.07	0.49	0.94	0.08	57	7.4	0.7	0.50	0	


Terrance McGhee
Manager of Water Operations



**Reference Guide for Public Water Systems
Lead and Copper Rule Proposal Comparison**

EPA’s proposed Lead and Copper Rule (LCR) includes a suite of actions to reduce lead exposure in drinking water where it is needed the most. The proposed rule will identify the most at-risk communities and ensure systems have plans in place to rapidly respond by taking actions to reduce elevated levels of lead in drinking water. For more information on the proposed rule, please visit: www.epa.gov/safewater/LCRproposal

The following table compares the major differences between the current Lead and Copper Rule (LCR) and proposed Lead and Copper Rule revisions (LCRR). In general, requirements that are unchanged are not listed. For existing rule requirements please visit: <https://www.epa.gov/dwreginfo/lead-and-copper-rule>

CURRENT LCR	PROPOSED LCRR
<i>Action Level (AL) and Trigger Level (TL)</i>	
<ul style="list-style-type: none"> 90th percentile (P90) level above lead AL of 15 µg/L or copper AL of 1.3 mg/L requires additional actions. 	<ul style="list-style-type: none"> 90th percentile (P90) level above lead AL of 15 µg/L or copper AL of 1.3 mg/L requires more actions than the current rule. Defines trigger level (TL) of P90 > 10 and ≤15 µg/L that triggers additional planning, monitoring, and treatment requirements.
<i>Lead and Copper Tap Monitoring</i>	
<p>Sample Site Selection</p> <ul style="list-style-type: none"> Prioritizes collection of samples from sites with sources of lead in contact with drinking water. Highest priority given to sites served by copper pipes with lead solder installed after 1982 but before the ban on lead pipes and/or lead service lines (LSLs). Systems must collect 50% of samples from LSLs, if available. 	<p>Sample Site Selection</p> <ul style="list-style-type: none"> Changes priorities for collection of samples with a greater focus on lead service lines. Prioritizes collecting samples from sites served by LSLs. No distinction in prioritization of copper pipes with lead solder by installation date. Systems must collect all samples from sites served by LSLs, if available.
<p>Collection Procedure</p> <ul style="list-style-type: none"> Requires collection of a one-liter sample after water has sat stagnant for a minimum of 6 hours. 	<p>Collection Procedure</p> <ul style="list-style-type: none"> Adds requirement that samples must be collected in wide-mouth bottles. Prohibits sampling instructions that include recommendations for aerator cleaning/removal and pre-stagnation flushing prior to sample collection.

CURRENT LCR	PROPOSED LCRR
<p>Monitoring Frequency</p> <ul style="list-style-type: none"> • Samples are analyzed for both lead and copper. • Systems must collect standard number of samples based on population semi-annually unless they qualify for reduced monitoring. • Systems can qualify for annual or triennial monitoring at reduced number of sites. Schedule based on number of consecutive years meeting the following criteria: <ul style="list-style-type: none"> ○ Serves $\leq 50,000$ people and \leq lead & copper ALs. ○ Serves any population size, meets State-specified optimal water quality parameters (OWQPs), and \leq lead AL. • Triennial monitoring also applies to any system with P90 and copper 90th percentile levels ≤ 0.005 mg/L and ≤ 0.65 mg/L, respectively, for 2 consecutive 6-month monitoring periods. • 9-year monitoring waiver available to systems serving $\leq 3,300$. 	<p>Monitoring Frequency</p> <ul style="list-style-type: none"> • Some samples may be analyzed for lead only when lead monitoring is conducted more frequently than copper. • Copper follows the same criteria as the current rule. • Lead monitoring schedule is based on P90 level for all systems as follows: <ul style="list-style-type: none"> ○ P90 > 15 $\mu\text{g/L}$: Semi-annually at the standard number of sites. ○ P90 > 10 to 15 $\mu\text{g/L}$: Annually at the standard number of sites. ○ P90 ≤ 10 $\mu\text{g/L}$: <ul style="list-style-type: none"> ▪ Annually and triennially at reduced number of sites using same criteria as current rule except copper 90th percentile level is not considered. ▪ Every 9 years based on current rule requirements for a 9-year monitoring waiver.
Corrosion Control Treatment (CCT) and Water Quality Parameters (WQPs)	
<p>CCT</p> <ul style="list-style-type: none"> • Systems serving $> 50,000$ people were required to install treatment by January 1, 1997 with limited exception. • Systems serving $\leq 50,000$ that exceed lead and/or copper AL are subject to CCT requirements (e.g., CCT recommendation, study if required by Primacy Agency, CCT installation). Can discontinue CCT steps if no longer exceed both ALs for two consecutive 6-month monitoring periods. • Systems must operate CCT to meet any Primacy Agency-designated OWQPs that define optimal CCT. • There is no requirement for systems to re-optimize. 	<p>CCT</p> <ul style="list-style-type: none"> • Specifies CCT requirements for systems with P90 level > 10 to ≤ 15 $\mu\text{g/L}$: <ul style="list-style-type: none"> ○ No CCT: must conduct a CCT study if required by Primacy Agency. ○ With CCT: must follow the steps for re-optimizing CCT, as specified in the rule. • Systems with P90 level > 15 $\mu\text{g/L}$: <ul style="list-style-type: none"> ○ No CCT: must complete CCT installation regardless of their subsequent P90 levels. ○ With CCT: must re-optimize CCT. • Community water systems (CWSs) serving $\leq 10,000$ people and non-transient water systems (NTNCWSs) can select an option other than CCT to address lead. <i>See Small System Flexibility.</i>
<p>CCT Options: Includes alkalinity and pH adjustment, calcium hardness adjustment, and phosphate or silicate-based corrosion inhibitor.</p>	<p>CCT Options: Removes calcium hardness as an option and specifies any phosphate inhibitor must be orthophosphate.</p>

CURRENT LCR	PROPOSED LCRR
<p>Regulated WQPs:</p> <ul style="list-style-type: none"> • No CCT: pH, alkalinity, calcium, conductivity, temperature, orthophosphate (if phosphate-based inhibitor is used), silica (if silica-based inhibitor is used). • With CCT: pH, alkalinity, and based on type of CCT either orthophosphate, silica, or calcium. 	<p>Regulated WQPs:</p> <ul style="list-style-type: none"> • Eliminates WQPs related to calcium hardness (i.e., calcium, conductivity, and temperature).
<p>WQP Monitoring</p> <ul style="list-style-type: none"> • Systems serving $\geq 50,000$ people must conduct regular WQP monitoring at entry points and within the distribution system. • Systems serving $\leq 50,000$ people conduct monitoring only in those periods $>$ lead or copper AL. • Contains provisions to sample at reduced number of sites in distribution system less frequency for all systems meeting their OWQPs. 	<p>WQP Monitoring</p> <ul style="list-style-type: none"> • Systems serving $\geq 50,000$ people must conduct regular WQP monitoring at entry points and within the distribution system. • Systems serving $\leq 50,000$ people must continue WQP monitoring until they no longer $>$ lead and/or copper AL for two consecutive 6-month monitoring periods. • To qualify for reduced WQP distribution monitoring, P90 must be $\leq 10 \mu\text{g/L}$ and the system must meet its OWQPs.
<p>Sanitary Survey Review:</p> <ul style="list-style-type: none"> • Treatment must be reviewed during sanitary surveys, no specific requirement to assess CCT or WQPs. 	<p>Sanitary Survey Review:</p> <ul style="list-style-type: none"> • CCT and WQP data must be reviewed during sanitary surveys against most recent CCT guidance issued by EPA.
<p>Find and Fix: No required follow-up samples or additional actions if an individual sample exceeds $15 \mu\text{g/L}$.</p>	<p>Find and Fix: If individual tap sample $> 15 \mu\text{g/L}$, systems must:</p> <ul style="list-style-type: none"> • Collect a follow-up sample at each location $> 15 \mu\text{g/L}$. • Conduct WQP monitoring at or near the site $> 15 \mu\text{g/L}$. • Perform needed corrective action.
<i>LSL Inventory and LSLR Plan</i>	
<p>Initial LSL Program Activities:</p> <ul style="list-style-type: none"> • Systems were required to complete a materials evaluation by the time of initial sampling. No requirement to update materials evaluation. • No LSLR plan is required. 	<p>Initial LSL Program Activities:</p> <ul style="list-style-type: none"> • All systems must develop an LSL inventory or demonstrate absence of LSLs within first 3 years of final rule publication. • LSL inventory must be updated annually. • All systems with known or possible LSLs must develop an LSLR plan.



CURRENT LCR	PROPOSED LCRR
<p>LSLR:</p> <ul style="list-style-type: none"> • Systems with LSLs with P90 > 15 µg/L after CCT installation must annually replace ≥7% of number of LSLs in their distribution system when the lead action level is first exceeded. • Systems must replace the LSL portion they own and offer to replace the private portion at the owner’s expense. • Full LSLR, partial LSLR, and LSLs with lead sample results ≤15 µg/L (“test-outs”) count toward the 7% replacement rate. • Systems can discontinue LSLR after 2 consecutive 6-month monitoring periods ≤ lead AL. 	<p>LSLR:</p> <ul style="list-style-type: none"> • Rule specifies replacement programs based on P90 level for CWSs serving > 10,000 people: <ul style="list-style-type: none"> ○ If P90 > 15 µg/L: Must fully replace 3% of LSLs per year (mandatory replacement) for 4 consecutive 6-month monitoring periods. ○ If P90 > 10 to 15 µg/L: Implement an LSLR program with replacement goals in consultation with the Primacy Agency for 2 consecutive 1-year monitoring periods. • Small CWSs and NTNCWSs that select LSLR as their compliance option must complete LSLR within 15 years if P90 > 15 µg/L. <i>See Small System Flexibility.</i> • Annual LSLR rate is based on number of LSLs when the system first exceeds the action level plus the current number of service lines of unknown materials. • Only full LSLR (both customer-owned and system-owned portion) count toward mandatory rate or goal-based rate. • All systems must replace their portion of an LSL if notified by consumer of private side replacement within 3 months of the private replacement. • Following each LSLR, systems must: <ul style="list-style-type: none"> ○ Provide pitcher filters/cartridges to each customer for 3 months after replacement. Must be provided within 24 hours for full and partial LSLRs. ○ Collect a lead tap sample at locations served by replaced line within 3 to 6 months after replacement.
<p>LSL-Related Outreach:</p> <ul style="list-style-type: none"> • When water system plans to replace the portion it owns, it must offer to replace customer-owned portion at owner’s expense. • If system replaces its portion only: <ul style="list-style-type: none"> ○ Provide notification to affected residences within 45 days prior to replacement on possible elevated short-term lead levels and measures to minimize exposure. 	<p>LSL-Related Outreach:</p> <ul style="list-style-type: none"> • Inform consumers annually that they are served by LSL or service line of unknown material. • Systems subject to goal-based program must: <ul style="list-style-type: none"> ○ Conduct targeted outreach that encourages consumers with LSLs to participate in the LSLR program. ○ Conduct an additional outreach activity if they fail to meet their goal.



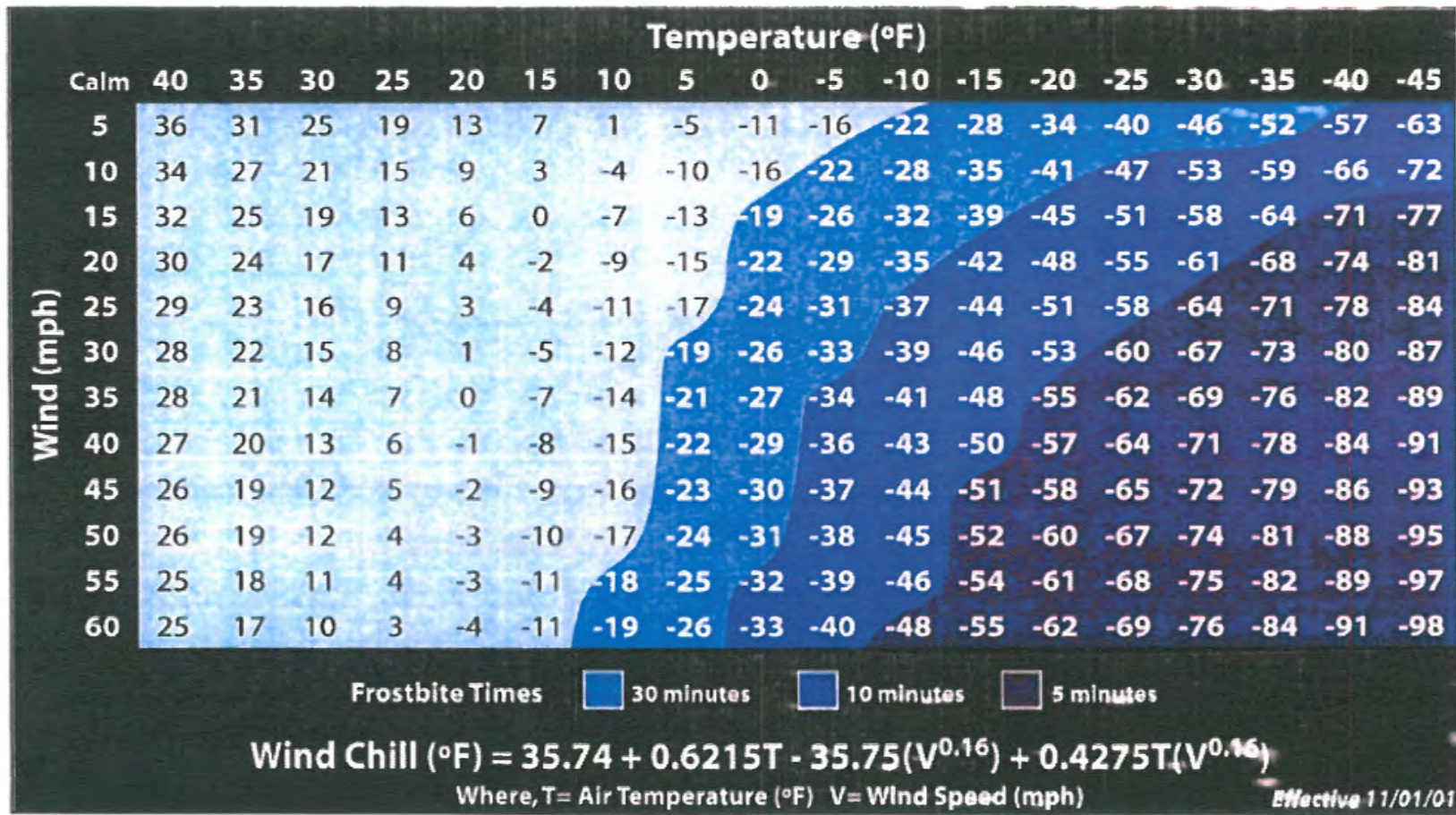
CURRENT LCR	PROPOSED LCRR
<ul style="list-style-type: none"> ○ Include offer to collect lead tap sample within 72 hours of replacement. ○ Provide test results within 3 business days after receiving results. 	<ul style="list-style-type: none"> ● Systems subject to mandatory LSLR include information on LSLR program in public education (PE) materials that are provided in response to P90 > AL.
<i>Small System Flexibility</i>	
<p>No provisions for systems to elect an alternative treatment approach but sets specific requirements for CCT and LSLR.</p>	<p>Allows CWSs serving $\leq 10,000$ people and all NTNCWSs with P90 > 10 $\mu\text{g/L}$ to elect their approach to address lead levels at P90 > 15 $\mu\text{g/L}$ with Primacy Agency approval:</p> <ul style="list-style-type: none"> ● Systems can choose CCT, LSLR, or provision and maintenance of point-of-use devices. ● NTNCWSs can also elect to replace all lead-bearing materials.
<i>Public Education and Outreach</i>	
<ul style="list-style-type: none"> ● All CWSs must provide education material in the annual Consumer Confidence Report (CCR). ● Systems with P90 > AL must provide public education and outreach (PE) to customers about lead sources, health effects, measures to reduce lead exposure, and additional information sources. ● Systems must provide lead consumer notice to individuals served at tested taps within 30 days of learning results. 	<ul style="list-style-type: none"> ● CWSs must provide updated health effects language and information regarding LSLR program in the CCR. ● If P90 > AL: <ul style="list-style-type: none"> ○ Current PE requirements apply. ○ Systems must notify customers of P90 > AL within 24 hours. ● In addition, CWSs must: <ul style="list-style-type: none"> ○ Improve public access to lead information including LSL locations and respond to requests for LSL information. ○ Deliver notice and educational materials to customers during water-related work that could disturb LSLs. ○ Provide increased information to healthcare providers. ○ Provide lead consumer notice to customers whose individual tap sample is > 15 $\mu\text{g/L}$ within 24 hours. ● <i>Also see LSL-Related Outreach in LSLR section of table.</i>
<i>Change in Source or Treatment</i>	
<p>Systems on a reduced tap monitoring schedule must obtain prior Primacy Agency approval before changing their source or treatment.</p>	<p>Systems on any tap monitoring schedule must obtain prior Primacy Agency approval before changing their source or treatment.</p>
<i>Source Water Monitoring and Treatment</i>	



CURRENT LCR	PROPOSED LCRR
<ul style="list-style-type: none"> • Periodic source water monitoring is required for systems with: <ul style="list-style-type: none"> ○ Source water treatment; or ○ P90 > AL and no source water treatment. 	<ul style="list-style-type: none"> • Primacy Agencies can waive continued source water monitoring if the: <ul style="list-style-type: none"> ○ System has already conducted source water monitoring for a previous P90 > AL; ○ Primacy Agency has determined that source water treatment is not required; <i>and</i> ○ System has not added any new water sources.
Lead in Drinking Water at Schools and Child Care Facilities	
<ul style="list-style-type: none"> • Does not include separate testing and education program for CWSs at schools and child care facilities. • Schools and child cares that are classified as NTNCWSs must sample for lead and copper. 	<ul style="list-style-type: none"> • CWSs must conduct lead in drinking water testing and PE at 20% of K-12 schools and licensed child cares in service area every year. • Sample results and PE must be provided to each sampled school/child care, Primacy Agency and local or State health department. • Excludes facilities built after January 1, 2014.
Primacy Agency Reporting	
<p>Primacy Agencies must report information to EPA that includes but is not limited to:</p> <ul style="list-style-type: none"> • All P90 levels for systems serving > 3,300 people, and only levels > 15 µg/L for smaller systems. • Systems that are required to initiate LSLR and the date replacement must begin. • Systems for which optimal corrosion control treatment (OCCT) has been designated. 	<p>Expands current requirements to include:</p> <ul style="list-style-type: none"> • All P90 values for all system sizes. • The current number of LSLs and service lines of unknown material for every water system. • OCCT status of all systems including Primacy Agency-specified OWQPs.



Wind Chill Chart





ENVIRONMENT

Safety Tips to Prevent Winter-Related Workplace Accidents

A strong safety culture extends to all seasons, even in winter when cold stress is common among outdoor workers.

Corey Berghoefer | Jan 09, 2017

This time of year, cold stress that can result in hypothermia or frostbite is a hazard of which employers must be aware, particularly if they have outdoor workers. With the right preparation and presence of mind, both employers and employees can prevent these injuries.

One of the most effective prevention techniques is adopting the attitude that safety is an area of responsibility for everyone in the organization – both the employer and workers. Companies must initiate and reinforce safety protocols and clearly spell out safety responsibilities and expectations.

Including your staff in all aspects of your safety plan – from hazard identification to problem solving – not only will encourage a strong safety culture within your organization, it also will allow for an open dialogue that leads to continuous improvement. This includes seasonal safety policies.

Slips, Trips and Falls

The Bureau of Labor Statistics recently announced that slips, trips and falls accounted for 800 workplace fatalities in 2015 at a time when workplace deaths in the U.S. reached a six-year high.

Slips, trips and falls happen year-round, of course, but winter ice and snow create a more hazardous environment that increases the risk of worker injuries.

A proactive safety plan that specifically addresses slips, trips and falls not only enhances worker safety but also minimizes potential costs from workers' compensation payments, government fines or equipment/facility remediation requirements.

No shortage of information exists on safety measures to reduce slip, trip and fall incidents, and your insurance carrier may have specific suggestions pertaining to your facility.

For employers, an active effort needs to be made to prevent ice build-up on walkways, de-icing walkways and clearing walkways. Parking areas and outside break areas are often the most commonly overlooked.

Snow removal companies often allow snow and other debris to build up in areas which directly are in employees' pathways or otherwise obstruct a safe pathway.

The parking lot needs to be addressed as many winter falls occur when someone is getting in/out of his/her car or walking toward a cleared sidewalk.

This oversight, or simply the reliance on de-icing efforts alone, creates more potential hazards. In other words, there needs to be eyes on the parking areas, outside break areas and walkways at all times.

Here are six simple tips to avoid slips, trips and falls during the winter season:

1. Keep walkways, stairways and other work areas clear.
2. Remove hazards, such as water on floors and snow on sidewalks, immediately.
3. When walking, look where you are going and have your hands ready to steady yourself should you slip.
4. Avoid carrying heavy loads that may compromise your balance.

5. Mark hazardous areas. Use temporary signs, cones, barricades or floor stands to warn passing workers.
6. Outside, wear footwear with heavy treads for increased traction. Walk along grassy areas if a walkway is covered in ice. Make yourself visible to drivers by wearing a brightly colored jacket or clothes.

Frostbite and Hypothermia

Frostbite and hypothermia are the consequences of cold exposure, and both can have long-lasting effects. If you suspect either condition, call for help.

Know the signs of hypothermia and frostbite:

Hypothermia

- Shivering or shaking
- Lack of coordination
- Drowsiness or confusion
- Slurred speech

Frostbite

- Skin that is very cold and turns numb, hard and pale
- Blisters or swelling
- Joint or muscle stiffness

Keep the affected body part elevated in order to reduce swelling, and move the person to a warm area to prevent further heat loss. Remove all wet clothing and apply a dry, sterile bandage to the affected area or place cotton

between any involved fingers or toes. Seek proper medical care as soon as possible.

Add a Layer of Protection to Your Bottom Line

Even the most well-designed safety programs ultimately will be ineffective without the active participation and input of employees. In fact, a 2016 Gallup study revealed that employers with high levels of employee engagement had 70 percent fewer safety incidents than those with lower levels of engagement.

General guidelines include these standard safety precautions:

- Identify potential slip, trip and fall hazards in your workplace: review incident records, inspect locations and consider the impact of changing environmental conditions.
- Evaluate the potential risk of each hazard: number of employees who could be affected, the potential frequency of risk and the potential impact of the surrounding area or equipment.
- Determine controls that can be instituted to reduce each hazard: relocating or removing dangerous environmental factors, limiting accessibility to higher-risk areas and providing appropriate footwear or personal protective equipment.
- Regularly review the work environment: maintain regular housekeeping, ensure good lighting and keep equipment in proper working condition.
- Maintain records of all incidents and continually review and improve the work environment and safety initiatives: make employees feel “safe” to report safety concerns and make changes when necessary.

Creating an environment where your staff is comfortable enough to share responsibility of your safety plan may take time. The most vital component to building that trust is communication.

Effective communication does not rely on a one-directional flow from management to associates, but should instead actively seek upward feedback and input from employees to better understand and improve safety and health programs.

When leaders take the time to listen to their workers' perspectives and insights, it promotes an environment of respect and upholds safety as a fundamental organizational value.

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