

**OPERATORS ROUND TABLE
DU PAGE PUMPING STATION
October 19, 2018
9:00 AM**

Status of DuPage Water Commission

The Commission's sales for the month of September were a total of 2.29 billion gallons. This represents an average day demand of 76.2 million gallons per day (MGD), which is lower than the September 2017 average day demand of 88.4 MGD. The maximum day demand was 85.5 MGD recorded on September 17, 2018, which is lower than the September 2017 maximum day demand of 100.5 MGD. The minimum day flow was 66.0 MGD.

The Commission's recorded total precipitation for the month of September was 3.65 inches compared to 0.32 inches for September 2017. The level of Lake Michigan for September 2018 is 580.5 (Feet IGLD 1985) compared to 580.5 (Feet IGLD 1985) for September of 2017.

Water Conservation

Ongoing: 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. The cistern was installed, and the final grading and underground will be performed in October, followed by concrete and pavers. The pump for the cistern and water features arrived at the end of September.

Ongoing: Staff is working with SCARCE to earn their Earth Flag. The process consists of a green audit, staff training in recycling and conservation, an action that involves the Commission in the community (i.e. a book drive, cleaning a creek, adopting a highway, etc.), and finally presenting the Earth Flag to the Board Members. Staff has completed the green audit and is working with SCARCE to set up dates for staff training.

Bartlett Water Service

Welcome Dan and Tom

Benchmark Construction continues to install pipe, install pipe casings and restore pavement. Benchmark also continues to provide various Shop Drawing Submittals and Requests for Information. Benchmark has installed approximately 23,000 feet of pipe and successfully pressure tested 11,000 feet of pipe. They have approximately 850 feet of pipe remaining to install. They are working on restoration of all area within the Village of Roselle, Hanover Park, and Bartlett.

A Pre-Con meeting was held with Benchmark and Rempe-Sharp to develop the procedures and schedule for the addition work to be completed in the Village of Bartlett.

A Preconstruction meeting with the Bartlett Meter Station 30A contractor, J.J. Henderson and Sons, Inc., was held to kick-off the project. Weekly project progress meetings are being held; the contractor is submitting various documents for review and approval including shop drawings. The Contract Completion Date is April 19, 2019.

Pipeline Maintenance

John Neri Construction Co. Inc., completed the restoration work associated with the repair due to a leak on a 60" diameter water main located in the Village of Downers Grove. The source of the leak was a failure in the valve bonnet assembly of a 12" diameter blow off valve.

Staff continues collecting cathodic protection test point data.

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

Rossi Contractors Inc., was contracted to repair a leak on a 16" diameter ductile iron water main located at Butterfield and Meyers Roads in the City of Oakbrook.

Instrumentation / Remote Facilities Overview

Storage systems

Staff is working with Utility Service Co., Inc. for the replacement of the PAX Mixer motor at Standpipe 4 East. Staff is also working with Utility Service Co., Inc. in efforts to develop terms of a maintenance contract for the entire Standpipe 4E mixing system.

Installation of LED aviation obstruction lighting fixtures on top of all Commission standpipes has been completed.

Meter Stations

IWS, Inc. continues with the contract for Masonry and Concrete Joint Rehabilitation at the 73 Sites in DuPage County. To date, forty three (43) sites have been completed at an approximate rate of 1½ sites completed per day. Completion is anticipated by November 2nd. Additional construction joint failures have been uncovered during the progression of the work; have been corrected and a final balancing change order will be developed.

Facility Operations

The project to install high efficiency LED lighting fixtures for the DuPage Pumping Station and Administration facilities is approximately 98% complete. This project is expected to provide an economical saving to the Commission in electrical costs as well labor and maintenance costs.

Volt Electric, Inc. performed Infrared Scanning and necessary repairs of electrical equipment at the DuPage Pumping Station.

The Commission entered into a 36 Month service contract for heavy machinery and equipment rigging with Meccon Inc.

The Commission entered into a 36 Month service contract for maintenance, parts and repair service for large water pumps with Xylem Water Solutions U.S.A., Inc.

Security

The Commission is continuing to update its Emergency Response Plan (ERP) and its Vulnerability Assessment as our system grows.

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.

The Commission will be installing new electronic padlocks and door locks at all the Commission remote facilities.

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.

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

Meter Testing

Annual Customer Meter Calibration Program

The Flow Meter Replacement Project Contract with Mecon Industries to replace water meters at the Commission's meter stations is complete.

The Becon customer portal is still under construction and is expected to be rolled out sometime in December

The annual customer meter testing program will begin in November Meter Technician Rick Nolan and should be contacted with any questions or concerns.

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

The regulatory update will be held on November 1st in Elgin

The proposed changes to the minimum chlorine residual are under review and there is no time limit as of now.

Increase Free Chlorine residual from 0.2 mg/l to 0.5 mg/l

Increase Combined Chlorine residual from 0.5 mg/l to 1.0 mg/l

Public Act 00-0922 (Senate Bill 0550)-

signed into Law by Governor Bruce Rauner on January 16, 2017, established lead testing requirements and protocols for all water sources used for cooking and drinking within some schools and day care facilities as well as requirements for water providers to compile a lead materials inventory and provide notification during water distribution work

Additional Lead and Copper regulations

Notification of activities that could release lead particles
Lead service line inventory by 4/1/2018

Renewal Training

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

Water Quality

The Commission is currently feeding chlorine and we expect to shut it down sometime in November when the water temperature drops. Current water temperature at the crib is 58 degrees.

Water Rates

Water rate for 2018 \$4.94/1000 gallons

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 18, 2019 at 9:00 A.M. or before if events warrant.

AWWA

WaterCon 2019
Will be held
March 18 - 21st, 2019

Seminars

10/23/18 - SCADA 350 (Downers Grove) IEPA#12158

10/23/2018

Location: Downers Grove, Illinois Time: Registration at 7:30 AM

10/30/18 - Hands on Basic Water Quality Testing (Highland Park) IEPA#12244

10/30/2018

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

10/31/18 - Water Loss - Best Practices & Loss Control Programs (Lombard) IEPA#12306

10/31/2018

Location: Lombard, Illinois Time: Registration at 7:30 AM

11/1/18 - Annual Regulatory Update (Elgin) IEPA #12133 IDEM #PWST18-6617

11/1/2018

Location: Elgin, Illinois Time: Registration at 7:30am

11/06/18 - Control Valves (Arlington Heights) IEPA#12137

11/6/2018

Location: Arlington Heights, Illinois Time: Registration at 7:30 AM

11/08/18 - Water Storage Tanks & Reservoirs - O&M (Schaumburg) IEPA#12155

11/8/2018

Location: Schaumburg, Illinois Time: Registration at 7:30 AM

11/13/18 - Meters & Metering Systems (Crystal Lake) IEPA#12250

11/13/2018

Location: Crystal Lake, Illinois Time: Registration at 7:30 AM

12/04/18 - Water/Sewer Plans 101 (Glen Ellyn) IEPA#12447

12/4/2018

Location: Glen Ellyn, Illinois Time: Registration at 7:30 AM

12/06/18 - Energy Savings Through Valve Selection (Addison) IEPA#12586
IDEM#PWST18-6429
12/6/2018

Location: Addison, Illinois Time: Registration at 7:30 AM

01/09/19-03/13/19-Water Distribution Sys O&M for C/D 10-wk Night Class (Westmont)
IEPA#13365
1/9/2019

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

Questions & Answers

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 2018, August 2018, and September 2018.
2. Safe Winter Driving Tips
3. Wind Chill / Heatwave Chart
4. Job Safety Analysis

Operations/Minutes/Ort181019.doc

OPERATORS ROUND TABLE

Village of Addison	Village of Itasca
Jim Russo	
Argonne Labs	Village of Lisle
Tad Jesionowski	
Alan Moler	
Village of Bartlett	Village of Lombard
Tom Ruzicka	
Dan Dinges	
Village of Bensenville	City of Naperville
Village of Bloomingdale	Village of Oak Brook
Patrick Maranto	
Village of Carol Stream	City of Oak Brook Terrace
Village of Clarendon Hills	Village of Roselle
	Mike Schulz
	Karen Yong
City of Darien	Village of Schaumburg
	Brian Wagner
City of Darien	Village of Villa Park
	Dan Coulter
Village of Downers Grove	Village of Westmont
DuPage County	City of Wheaton
Jim Joers	Al McMillan
City of Elmhurst	Village of Willow brook
Village of Glendale Heights	Village of Winfield
Roman Consini	Ryan Jackson
	Chad Yearsly
Village of Glen Ellyn	City of Wood Dale
John Hubsy	

Village of Hinsdale	Village of Woodridge
	Mike Kaczmark
Illinois American	

DUPAGE WATER COMMISSION LABORATORY BENCH SHEET
MONTHLY REPORT FOR JULY 2018

LEXINGTON SUPPLY

DUPAGE DISCHARGE

DAY	FREE CL ₂		TURBIDITY		PO ₄		FREE CL ₂		TURBIDITY		TEMP °F	pH	Fluoride	PO ₄ mg/l	P.A.C. LBS/MG	ANALYST INT
	mg/l	NTU	mg/l	mg/l	mg/l	mg/l	mg/l	NTU								
1	1.10	0.07	0.59	1.00	0.09	64	7.5	0.9	0.52	0	KD					
2	1.10	0.08	0.54	0.95	0.08	64	7.6	0.9	0.59	0	AM					
3	1.10	0.07	0.57	0.98	0.08	63	7.6	0.8	0.57	0	AM					
4	1.10	0.07	0.58	0.96	0.08	64	7.5	0.8	0.57	0	KD					
5	0.94	0.08	0.59	0.90	0.08	63	7.6	0.9	0.57	0	KD					
6	0.97	0.08	0.57	0.88	0.09	63	7.6	0.8	0.52	0	KD					
7	1.00	0.07	0.54	0.91	0.07	63	7.6	0.8	0.58	0	CT					
8	1.00	0.09	0.54	0.89	0.09	66	7.6	0.7	0.60	0	CT					
9	1.00	0.09	0.59	0.90	0.10	66	7.6	0.8	0.52	0	KD					
10	1.00	0.07	0.58	0.91	0.10	67	7.6	0.8	0.54	0	KD					
11	0.97	0.07	0.55	0.91	0.08	66	7.6	0.8	0.54	0	CT					
12	1.00	0.08	0.54	0.90	0.09	66	7.6	0.8	0.54	0	CT					
13	1.00	0.07	0.57	0.93	0.09	67	7.6	0.9	0.53	0	CT					
14	0.97	0.08	0.54	0.92	0.08	68	7.6	0.8	0.59	0	RC					
15	1.05	0.08	0.54	0.90	0.08	68	7.6	0.8	0.58	0	RC					
16	1.10	0.07	0.58	1.00	0.07	66	7.6	0.7	0.53	0	CT					
17	1.00	0.07	0.52	1.00	0.09	64	7.5	0.8	0.55	0	CT					
18	1.07	0.07	0.58	1.00	0.08	66	7.6	0.8	0.57	0	RC					
19	1.06	0.08	0.58	0.91	0.08	64	7.6	0.8	0.52	0	RC					
20	0.94	0.07	0.57	0.91	0.09	68	7.6	0.9	0.59	0	RC					
21	0.94	0.07	0.54	0.92	0.09	66	7.6	0.8	0.53	0	RC					
22	0.95	0.07	0.59	0.95	0.09	68	7.6	0.8	0.57	0	GA					
23	0.97	0.08	0.58	0.90	0.08	64	7.7	0.8	0.53	0	RC					
24	0.94	0.09	0.52	0.90	0.09	68	7.6	0.8	0.54	0	RC					
25	1.00	0.08	0.55	0.94	0.09	68	7.6	0.8	0.54	0	CT					
26	0.96	0.08	0.52	0.94	0.09	69	7.7	0.9	0.54	0	CT					
27	0.97	0.08	0.53	0.95	0.09	69	7.6	0.9	0.52	0	CT					
28	0.93	0.07	0.54	0.89	0.08	70	7.7	0.8	0.51	0	RC					
29	0.98	0.07	0.53	0.93	0.08	70	7.7	0.8	0.54	0	RC					
30	1.00	0.07	0.52	0.98	0.08	71	7.6	0.8	0.54	0	CT					
31	0.98	0.07	0.53	0.94	0.09	70	7.6	0.8	0.54	0	CT					
AVG	1.00	0.08	0.56	0.93	0.09	66	7.6	0.8	0.55	0						
MAX	1.10	0.09	0.59	1.00	0.10	71	7.7	0.9	0.60	0						
MIN	0.93	0.07	0.52	0.88	0.07	63	7.5	0.7	0.51	0						


Terrance McGhee
Manager of Water Operations

DUPAGE WATER COMMISSION LABORATORY BENCH SHEET
MONTHLY REPORT FOR AUGUST 2018

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	0.99	0.09	0.60	0.92	0.09	71	7.7	0.7	0.61	0	RC
2	0.92	0.09	0.60	0.87	0.09	71	7.7	0.8	0.61	0	RC
3	0.98	0.09	0.54	0.95	0.09	72	7.7	0.8	0.54	0	RC
4	0.96	0.08	0.59	0.99	0.08	72	7.6	0.8	0.61	0	AM
5	0.91	0.08	0.60	0.93	0.09	72	7.7	0.8	0.58	0	AM
6	0.94	0.08	0.60	0.89	0.09	72	7.7	0.8	0.57	0	AM
7	0.92	0.09	0.61	0.87	0.09	72	7.7	0.9	0.61	0	AM
8	0.91	0.08	0.57	0.90	0.08	72	7.7	0.8	0.53	0	AM
9	0.95	0.09	0.60	0.89	0.08	72	7.8	1.0	0.60	0	AM
10	0.97	0.09	0.61	0.91	0.09	72	7.7	0.9	0.58	0	AM
11	0.99	0.08	0.59	0.99	0.09	72	7.8	0.9	0.58	0	AM
12	1.00	0.08	0.61	0.97	0.09	73	7.7	0.8	0.60	0	AM
13	1.00	0.09	0.60	0.98	0.09	73	7.7	0.8	0.59	0	AM
14	0.93	0.09	0.61	0.90	0.10	74	7.8	0.9	0.53	0	AM
15	0.91	0.09	0.58	0.92	0.10	74	7.8	0.8	0.54	0	KD
16	0.94	0.09	0.58	0.96	0.09	74	7.8	0.8	0.60	0	KD
17	0.98	0.09	0.57	0.98	0.09	72	7.8	0.8	0.56	0	KD
18	1.00	0.09	0.54	0.96	0.09	72	7.8	0.8	0.57	0	AM
19	1.10	0.09	0.51	0.93	0.09	72	7.8	0.8	0.52	0	AM
20	1.00	0.08	0.61	0.95	0.09	72	7.8	0.8	0.53	0	KD
21	0.96	0.09	0.57	0.94	0.10	72	7.7	0.9	0.54	0	KD
22	0.96	0.09	0.58	0.95	0.09	72	7.8	0.9	0.52	0	AM
23	1.00	0.08	0.59	1.00	0.08	71	7.7	0.8	0.53	0	AM
24	0.96	0.09	0.60	0.93	0.09	71	7.8	0.9	0.53	0	AM
25	0.97	0.09	0.57	0.94	0.09	71	7.8	0.9	0.53	0	KD
26	0.97	0.09	0.60	0.94	0.09	71	7.8	0.8	0.51	0	KD
27	0.94	0.08	0.61	0.91	0.09	72	7.7	0.8	0.52	0	AM
28	0.97	0.08	0.59	0.93	0.09	72	7.7	0.8	0.59	0	AM
29	0.94	0.10	0.59	0.95	0.14	72	7.8	1.0	0.54	0	KD
30	0.95	0.09	0.57	0.90	0.10	72	7.8	0.9	0.53	0	KD
31	0.93	0.09	0.52	0.91	0.12	72	7.8	0.9	0.55	0	KD
AVG	0.96	0.09	0.58	0.93	0.09	72	7.7	0.8	0.56	0	
MAX	1.10	0.10	0.61	1.00	0.14	74	7.8	1.0	0.61	0	
MIN	0.91	0.08	0.51	0.87	0.08	71	7.6	0.7	0.51	0	



Terrance McGhee
Manager of Water Operations

DUPAGE WATER COMMISSION LABORATORY BENCH SHEET
MONTHLY REPORT FOR SEPTEMBER 2018

LEXINGTON SUPPLY

DUPAGE DISCHARGE

DAY	FREE CL ₂	TURBIDITY	PO ₄	FREE CL ₂	TURBIDITY	TEMP	pH	Fluoride	PO ₄	P.A.C.	ANALYST
	mg/l	NTU	mg/l	mg/l	NTU	°F			mg/l	LBS/MG	
1	1.00	0.08	0.61	1.00	0.09	68	7.8	0.9	0.64	0	KD
2	0.92	0.09	0.68	0.95	0.10	67	7.8	0.9	0.64	0	RC
3	0.97	0.09	0.68	0.96	0.10	67	7.8	0.9	0.65	0	KD
4	1.00	0.08	0.62	0.95	0.09	64	7.8	0.8	0.65	0	KD
5	1.00	0.07	0.62	0.95	0.08	65	7.8	0.8	0.65	0	CT
6	1.00	0.07	0.60	1.00	0.09	65	7.8	0.8	0.69	0	CT
7	0.98	0.09	0.62	1.00	0.10	63	7.8	0.9	0.64	0	CT
8	1.04	0.10	0.61	1.09	0.10	63	7.7	0.8	0.60	0	RC
9	0.96	0.10	0.64	0.92	0.10	68	7.7	0.9	0.65	0	RC
10	0.96	0.09	0.64	0.94	0.10	70	7.7	0.8	0.91	0	CT
11	0.92	0.09	0.61	0.93	0.12	69	7.8	0.9	0.61	0	CT
12	0.93	0.10	0.62	0.92	0.11	69	7.8	0.8	0.66	0	RC
13	1.04	0.07	0.61	0.97	0.09	69	7.8	0.8	0.63	0	RC
14	0.95	0.10	0.64	0.95	0.10	69	7.8	0.8	0.66	0	RC
15	1.00	0.07	0.64	0.93	0.09	70	7.9	0.9	0.62	0	CT
16	1.00	0.10	0.60	0.92	0.10	70	7.9	0.8	0.67	0	CT
17	0.94	0.11	0.61	0.94	0.10	70	7.8	0.8	0.60	0	CT
18	0.90	0.10	0.68	0.95	0.10	70	7.8	0.8	0.67	0	RC
19	0.94	0.10	0.69	0.92	0.09	70	7.8	0.9	0.65	0	CT
20	0.92	0.09	0.61	0.92	0.10	70	7.7	0.9	0.57	0	CT
21	0.94	0.10	0.56	0.93	0.11	71	7.8	0.9	0.64	0	CT
22	0.99	0.06	0.63	0.94	0.09	71	7.7	0.9	0.61	0	RC
23	0.98	0.08	0.64	1.00	0.09	71	7.8	0.9	0.63	0	RC
24	1.00	0.09	0.59	0.95	0.09	71	7.8	0.8	0.61	0	CT
25	0.98	0.09	0.61	0.94	0.09	70	7.8	0.9	0.63	0	CT
26	0.99	0.07	0.64	0.96	0.08	70	7.7	0.8	0.61	0	RC
27	0.96	0.07	0.64	0.94	0.09	70	7.7	0.8	0.63	0	RC
28	0.98	0.08	0.58	0.97	0.09	70	7.8	0.9	0.63	0	RC
29	1.00	0.07	0.60	0.95	0.10	70	7.8	0.9	0.62	0	AM
30	1.00	0.07	0.62	0.97	0.10	69	7.8	0.9	0.60	0	AM
AVG	0.97	0.09	0.62	0.96	0.10	69	7.8	0.9	0.64	0	
MAX	1.04	0.11	0.69	1.09	0.12	71	7.9	0.9	0.91	0	
MIN	0.90	0.06	0.56	0.92	0.08	63	7.7	0.8	0.57	0	


Terrance McGhee
Manager of Water Operations

Safe Winter Driving

Winter driving can be hazardous and scary, especially in northern regions that get a lot of snow and ice. Additional preparations can help make a trip safer, or help motorists deal with an emergency. This sheet provides safety information to your residents to help prevent motor vehicle injuries due to winter storms.

The three P's of Safe Winter Driving:

PREPARE for the trip; **PROTECT** yourself; and **PREVENT** crashes on the road.

PREPARE

Maintain Your Car: Check battery, tire tread, and windshield wipers, keep your windows clear, put no-freeze fluid in the washer reservoir, and check your antifreeze.

Have On Hand: flashlight, jumper cables, abrasive material (sand, kitty litter, even floor mats), shovel, snow brush and ice scraper, warning devices (like flares) and blankets. *For long trips, add* food and water, medication and cell phone.

Stopped or Stalled? Stay in your car, don't overexert, put bright markers on antenna or windows and shine dome light, and, if you run your car, clear exhaust pipe and run it just enough to stay warm.

Plan Your route: Allow plenty of time (check the weather and leave early if necessary), be familiar with the maps/ directions, and let others know your route and arrival time.

Practice Cold Weather Driving!

- * During the daylight, rehearse maneuvers slowly on ice or snow in an empty lot.
- * Steer into a skid.
- * Know what your brakes will do: *stomp on antilock brakes, pump on non-antilock brakes.*
- * Stopping distances are longer on water-covered ice and ice.
- * Don't idle for a long time with the windows up or in an enclosed space.

PROTECT YOURSELF

- * Buckle up and use child safety seats properly.
- * Never place a rear-facing infant seat in front of an air bag.
- * Children 12 and under are much safer in the back seat.

PREVENT CRASHES

- * Drugs and alcohol never mix with driving.
- * Slow down and increase distances between cars.
- * Keep your eyes open for pedestrians walking in the road.
- * Avoid fatigue – Get plenty of rest before the trip, stop at least every three hours, and rotate drivers if possible.
- * If you are planning to drink, designate a sober driver.





WIND CHILL



Brought to you by the National Weather Service in Wichita, KS
www.weather.gov/wichita

Wind Chill is the temperature it “feels like” outside and is based on the rate of heat loss from exposed skin caused by the effects of wind and cold. As the wind increases, the body is cooled at a faster rate causing the skin temperature to drop. Wind Chill does not impact inanimate objects like car radiators and exposed water pipes, because these objects cannot cool below the actual air temperature.

FROSTBITE: Frostbite is an injury to the body caused by freezing body tissue. The most susceptible parts of the body are the extremities such as fingers, toes, ear lobes, or the tip of the nose. Symptoms include a loss of feeling in the extremity and awhile or pale appearance. Medical attention is needed immediately for frostbite. The area should be SLOWLY re-warmed.

HYPOTHERMIA: Hypothermia is abnormally low body temperature (below 95 degrees Fahrenheit). Warning signs include uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness, and apparent exhaustion. Medical attention is needed immediately. If it is not available, begin warming the body SLOWLY.

WIND CHILL ADVISORY

A wind chill advisory is issued when wind chill temperatures are potentially hazardous.

WIND CHILL WARNING

A wind chill warning is issued when wind chill temperatures are life threatening.

Cold Weather Safety

- Wear layers of loose-fitting, lightweight, warm clothing. Trapped air between the layers will insulate you.
- Outer garments should be tightly woven, water repellent and hooded
- Wear a hat, 40% of your body heat can be lost from your head
- Cover your mouth to protect your lungs from extreme cold
- Mittens, snug at the wrist are better than gloves
- Try to stay dry and out of the wind.



NWS Windchill Chart



		Temperature (°F)																	
		40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
Wind (mph)	5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
	10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
	15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
	20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
	25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
	35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
	45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
	50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
	55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98	

Frostbite Times: ■ 30 minutes ■ 10 minutes ■ 5 minutes

Wind Chill (°F) = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})
Where, T= Air Temperature (°F) V= Wind Speed (mph)

Effective 11/01/01

HEAT WAVE

#1 Weather Related Killer

Heat kills by taxing the human body beyond its abilities. A Heat wave is a prolonged period of excessive heat and humidity. The National Weather Service alerts the public during these periods of excessive heat and humidity.

HEAT INDEX: A number in degrees Fahrenheit that tells how hot it really feels when relative humidity is added to the actual air temperature. Exposure to full sunshine can increase the heat index by 15 degrees Fahrenheit.

HEAT EMERGENCIES:

Heat Cramps: Heat Cramps are muscular pains and spasms due to heavy exertion. Although heat cramps are the least severe, they are an early signal that the body is having trouble with the heat.

Heat Exhaustion: Heat exhaustion typically occurs when people exercise heavily or work in a hot, humid place where body fluids are lost through heavy sweating. Blood flow to the skin increases, causing blood flow to decrease to the vital organs. This results in a form of mild shock. If not treated, the victim may suffer heat stroke

Heat Stroke: Heat stroke is life-threatening. The victim's temperature control system, which produces sweating to cool the body stops working. The body temperature can rise so high that brain damage and death may result if the body is not cooled quickly.

Sunstroke: Another term for heat stroke.

Heat Advisory	Excessive Heat Warning
A Heat Advisory is issued when the Heat Index temperatures is potentially hazardous	An Excessive Heat Warning is issued when the Heat Index temperatures are life threatening.

Heat Wave Safety Tips

- **Slow Down:** Strenuous activities should be reduced, eliminated or rescheduled to the coolest time of the day.
- **Dress for Summer:** Lightweight light-colored clothing reflects heat and sunlight .
- **Put less fuel on your inner fires.** Foods (like proteins) that increase metabolic heat production also increase water loss.
- **Drink plenty of water or other non-alcohol fluids.** Your body needs water to keep cool.
- **Do not drink alcoholic beverages**
- **Do not take salt tablets unless specified by a physician.**
- **Spend more time in air-conditioned places**
- **Don't get too much sun.**

Temperature (°F)

	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	134
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	141
50	81	83	85	88	91	95	99	103	108	113	118	124	130	137	144	148
55	81	84	86	89	93	97	101	106	112	117	124	130	137	144	151	155
60	82	84	88	91	95	100	105	110	116	123	129	137	144	151	158	162
65	82	85	89	93	98	103	108	114	121	128	136	144	151	158	165	169
70	83	86	90	95	100	105	112	119	126	134	142	150	158	165	172	175
75	84	88	92	97	103	109	116	124	132	140	148	156	164	172	179	181
80	84	89	94	100	106	113	121	129	137	145	153	161	169	177	184	185
85	85	90	96	102	110	117	126	134	142	150	158	166	174	182	189	189
90	86	91	98	105	113	122	131	139	147	155	163	171	179	187	194	193
95	86	93	100	108	117	127	135	143	151	159	167	175	183	191	198	196
100	87	95	103	112	121	131	139	147	155	163	171	179	187	195	202	199

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity
■ Caution ■ Extreme Caution ■ Danger ■ Extreme Danger

JOB SAFETY ANALYSIS (JSA), continued

- 4. Reduce the exposure** – These measures are the least effective and should only be used if no other solutions are possible. One way of minimizing exposure is to reduce the number of times the hazard is encountered. The use of appropriate personal protective equipment may be required. To reduce the severity of an incident, emergency facilities, such as eyewash stations, may need to be provided.

In listing the preventive measures, do not use general statements such as “be careful” or “use caution.” Specific statements which describe both what action is required and how it is to be performed are preferable.

This article was written by Bill Bloch, IPRF Loss Control Consultant. If you have any questions, or would like more information, please contact Bill at bbloch@iprf.com, or call (217) 444-1220.

An example of a Job Safety Analysis (JSA):

LAWN MOWER OPERATION			
REQUIRED PERSONAL PROTECTION EQUIPMENT: Safety shoes, safety glasses, long pants, hearing protection.			
GENERAL NOTES: Only approved gas cans may be used. Never put hands under a running mower.			
JOB SAFETY ANALYSIS:			
STEP	DESCRIPTION	HAZARD	CONTROLS
1	Inspect the area to be cut	Discharged Object, Collapse	Clear the area of debris such as rocks, twigs, toys, etc.
2	Make sure weather conditions are acceptable for cutting grass	Lightning or Slip	Follow established procedures, do not cut grass if wet, or during an electrical storm.
3	Check fuel level and fill if necessary	Fire	Follow established procedures, never add fuel until the lawn mower engine is cooled.
4	Make sure all hardware is tight, safety devices are in place, and all adjustments are correct	Discharged Object	Personal Protection Equipment (PPE) should include: long pants, eye protection, steel toed footwear and hearing protection.
5	Turn the switch on the engine to the “ON” position		
6	If the engine has a primer button, push it as per instructions		
7	Start the engine by rapidly pulling the recoil-start rope	Muscle Strain	Assess muscle strength and posture.
8	Cut lawn	Fall	Operate walk behind mower across the face of slopes, never up and down slopes. Avoid sudden turns or maneuvers.
9	Turn the switch on the engine to the “OFF” position		

The goal of all safety programs is to minimize employee injuries and illnesses.

For assistance with **Job Safety Analysis** at your entity, look at Section 7 of the Illinois Public Risk Fund Loss Control Manual at www.iprf.com or contact your IPRF Loss Control Consultant.

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JOB SAFETY ANALYSIS (JSA)

AN IMPORTANT STEP TO PREVENTING INJURIES



A job safety analysis (JSA) is a process of systematically evaluating jobs, tasks, processes or procedures and eliminating or reducing the risks or hazards so you can recommend the safest way to do the job in order to protect workers from injury or illness. It is not only an OSHA requirement, but a great way to make employees aware of hazards and precautions needed to work safely. Just as you'd tell your child not to touch a hot stove or put their finger in an electrical outlet, you use a JSA to keep employees from being injured by making them aware of known hazards.

It can serve as a teaching aid for initial job training and as a briefing guide for infrequent jobs. It may be used as a standard for health and safety inspections or observations. A JSA will assist in completing comprehensive accident investigations.



Four basic stages in conducting a JSA are:

1. Selecting the job to be analyzed
2. Breaking the job down into a sequence of steps
3. Identifying potential hazards
4. Determining preventive measures to overcome these hazards

Factors to be considered in setting a priority for analysis of jobs include:

- Accident frequency and severity: jobs where accidents occur frequently or where they occur infrequently, but result in serious injuries.
- Potential for severe injuries or illnesses: the consequences of an accident, hazardous condition, or exposure to harmful products are potentially severe.
- Newly established jobs: due to lack of experience in these jobs, hazards may not be evident or anticipated.
- Modified jobs: new hazards may be associated with changes in job procedures.
- Infrequently performed jobs: workers may be at greater risk when undertaking non-routine jobs, and a JSA provides a means of reviewing hazards. This is also true for seasonal employees doing jobs for the first time.

Once the basic steps have been recorded, potential hazards must be identified at each step. List the things that could go wrong at each step based on observations of the job, knowledge of accident and injury causes, and personal experience.

To help identify potential hazards, the job analyst may use questions such as these:

- Can any body part get caught in or between objects?
- Do tools, machines, or equipment present any hazards?
- Can the worker make harmful contact with moving objects?
- Can the worker suffer strain from lifting, pushing, or pulling?
- Is lighting a problem?
- Can the worker slip, trip, or fall?
- Is the worker exposed to extreme heat or cold?
- Is excessive noise or vibration a problem?
- Is there a danger from falling objects?
- Can weather conditions affect safety?
- Can contact be made with hot, toxic, or caustic products?
- Are there dusts, fumes, mists, vapors in the air?



The final stage in a JSA is to determine ways to eliminate or control the hazards identified.

The generally accepted measures, in order of preference, are:

1. **Eliminate the hazard** – Elimination is the most effective measure. These techniques should be used to eliminate the hazards:
 - Choose a different process
 - Modify an existing process
 - Substitute with less hazardous product
 - Improve environment (e.g., ventilation)
 - Modify or change equipment or tools
2. **Contain the hazard** – If the hazard cannot be eliminated, contact might be prevented by using enclosures, machine guards, worker booths or similar devices.
3. **Revise work procedures** – Consideration might be given to modifying steps which are hazardous, changing the sequence of steps, or adding additional steps (such as locking out energy sources).