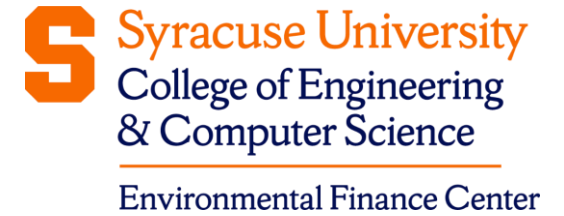




**ENVIRONMENTAL  
FINANCE CENTER**



# What to Expect When Your Wastewater Facility is Inspected

June 12, 2025



# Logistics

## Using the control panel

### Opening the control panel



Show your control panel

All phones/microphones are muted for the duration of the webinar

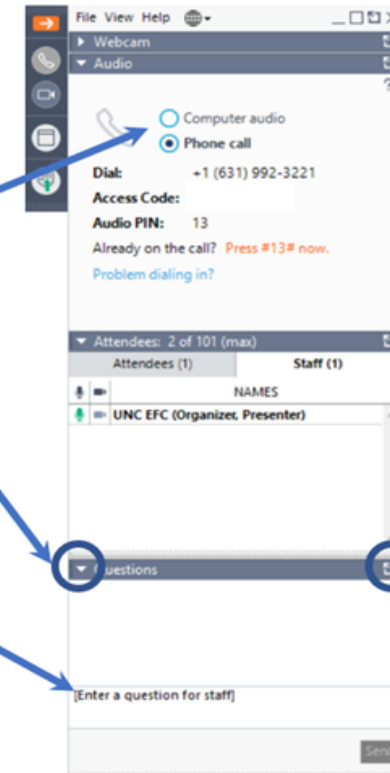
Toggle between full screen/window screen view


**Audio:** please choose between computer audio or phone call

If you do not hear audio right now, please check your speaker volume or enter #[your Audio PIN]# if using phone

Click  to open in Control Panel

Submit **questions** in the Questions box at any time, and press [Send]



Click  to open in separate box and resize

# Certificate of Completion

This session has **NOT** been submitted for pre-approval of Continuing Education Credits, but eligible attendees will receive a certificate of attendance for their personal record.

## To receive a certificate:

- You must attend the entire session
- You must register and attend using your real name and unique email address - group viewing credit will not be acceptable
- You must participate in polls
- Certificates will be sent via email within 30 days

If you have questions or need assistance, please contact [smallsystems@syr.edu](mailto:smallsystems@syr.edu).

# About Us

The **Environmental Finance Center Network (EFCN)** is a university- and non-profit-based organization creating innovative solutions to the difficult how-to-pay issues of environmental protection and water infrastructure.

The EFCN works collectively and as individual centers to address these issues across the entire U.S, including the 5 territories and the Navajo Nation. The EFCN aims to assist public and private sectors through training, direct professional assistance, production of durable resources, and innovative policy ideas.



# Overview

- EPA or your State regulator can and will inspect your **NPDES** facility
  - **Non-NPDES** facilities (evaporative lagoons, reuse, etc.) likely State-Only
  - Be prepared
- Don't panic!
- Understand how the inspection will play out
- Know what the inspector is looking for and why
  - Review copies of past inspection reports/forms
  - If part of a *multimedia* inspection – e.g. RCRA – may need other staff involved
- Help the inspector understand your operation

# Poll 1 – Where Are You Employed?

- Local Government – Operations or Management
- Industry
- State/Federal Government
- Consulting
- Other

# Inspections By Regulators Are Allowed

- State or EPA officials have authority to inspect
  - Must be at reasonable times
    - Typical workday hours
  - Present credentials
    - EPA – always
    - State – mixed
      - You can require credentials
- **40 CFR 122.41(i)**
  - Inspection and entry. The permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:
    - 1) Enter upon the permittee's premises
    - 2) Have access to and copy any records
    - 3) Inspect any facilities, equipment, practices, or operations regulated under the permit
    - 4) Sample or monitor any substances or parameters at any location to determine permit compliance.

# What is the Goal of an Inspection?

- Determine compliance status w/permit conditions and requirements
  - Don't forget about the General, Standard, and Supplemental Conditions
- Verify accuracy of information submitted by permittee
- Verify adequacy of sampling/monitoring by the permittee
- Gather evidence to support enforcement actions
- Assess compliance with orders, decrees, schedules of compliance



# Why Was I Chosen for Inspection?

- Generally
  - State regulators
    - Are obligated to inspect your facility every 1 to 5 years
      - More complex facilities more often
    - Issues that may prompt more frequent inspections:
      - An upset at your facility
      - A complaint about your facility
      - Out of compliance with DMRs
        - ✓ Particularly if the reason provided for noncompliance is “I don’t know why”
      - Excessive sanitary sewer overflows (SSOs)
      - Frequent operational problems
      - Verification of progress on a schedule of compliance (SOC)

# Why Was I Chosen for Inspection?

- Generally
  - EPA regulators
    - Tend to target facilities based on certain characteristics
      - Significant bypass/SSO
      - Facilities with significant noncompliance (SNC)
      - Any upset, spill, or bypass covered by the press
      - Specific Industries – e.g., may have emphasis on petroleum refineries one year
    - May be a request from state agency
      - Particularly if it may result in a criminal investigation
    - Why?
      - Want to make the most of their resources

# State vs EPA Inspections – My Experience

U.S. EPA Interim Revised NPDES Inspection Manual | 2017

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- Inspectors
  - You will c
  - Generally
- Often “ann
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  - They or a
  - They have
- Will not rec
  - If they mis
  - They may
- Tend to foc
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# Inspection Format – State or EPA

- Entrance interview
  - Good to have management and operations staff attend
  - Inspector explains the nature of their visit and what to expect
  - Sometimes, it might only be a sampling inspection;
    - Others may be full records and operational review – or both
- You will need to provide requested records
- Must provide access to any facilities/equipment covered by the permit
  - You should accompany and explain operations
  - Inspectors usually take pictures and/or videos to document their observations
- Allow them to set up sampling equipment/take samples
- Exit meeting – generally explain findings
  - Should explain there may be additional findings in the written report

# Inspection Format – Entrance Interview

- Good to have plant management and operations staff attend
- Ask questions if you have them
  - Ask for copy of their inspection checklist – should be a public record
- Alert inspector to any current issues – e.g.
  - A treatment unit down, a plant upset, etc.
- If records are kept off site, let the inspector know
  - Arrange to have records delivered to the plant or
  - For the inspector to go to the records storage facility
- Inspector will want to know if new additions to influent
  - Hydraulic, organic, inorganic
- Any additional information you think would be valuable to know
  - Good to have plant flow diagrams to explain plant – SCADA displays can work too

# Inspection Format – Entrance Interview

ACTIVATED SLUDGE					
Kansas Department of Health and Environment Bureau of Environmental Field Services					
Kansas Water Pollution Control Facility Inspection Report					
<b>I. General Information</b>					
Inspection Date:	Inspection Time:		KWPC Permit No.		
KDHE Representative:					
Facility Name:					
Facility Mailing Address:					
Design Capacity:	Current Population:				
WWTP Classification:	Last Inspection Date:				
<b>II. Contacts / Responsible Staff / Certified Operators</b>					
Name	Present	Title	Certification Level	Email Address	Telephone No.
<b>III. Facility Information</b>					
Description	Yes	No	N/A	Comments	
a. Does the level of staff certification comply with K.A.R. 28-16-36?					
<b>IV. Operation and Maintenance</b>					
Description	Yes	No	N/A	Comments	
a. Does the facility have adequate hydraulic capacity?					
b. Are all units in service (except backup)?					
c. Are operation and maintenance manuals available?					
d. Is flow measurement present?					
e. Is flow measurement device operable?					
<b>V. Influent / Effluent</b>					
Description	Yes	No	Comments		
a. Has there been or are there any anticipated significant changes in the influent quality and / or quantity?					
b. Describe the effluent and its effect on the receiving stream.					
c. Identify or discuss any high strength or problem user of the collection system.					
<b>VI. Sampling</b>					
Description	Yes	No	Comments		
a. Identify the location where the permittee actually samples the influent and effluent for permit compliance monitoring. Include multiple points if applicable.					
b. Are sample location(s) adequate?					
c. Do the plant personnel perform their own permit compliance monitoring testing? If no, who collects and analyzes samples and for what parameters?					
d. Is each laboratory certified for these parameters?					
e. Are the sample collection methods adequate?					
f. Was a sample collected for analysis during the inspection?					
g. Has the permittee been in compliance with the KWPC Permit effluent limitations since the last inspection?					
<b>VII. Reporting and Recordkeeping</b>					
Description	Yes	No	N/A	Comments	
a. Is a copy of the KWPC Permit available?					
b. Have all Discharge Monitoring Reports been submitted to KDHE on time?					
c. Are Discharge Monitoring Reports available?					
d. Are the Discharge Monitoring Reports maintained for three (3) years?					
e. Are records of laboratory instrumentation maintenance maintained for three (3) years?					
f. Are records of laboratory instrumentation calibration maintained for three (3) years?					

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Revision No. 2.0

g. How is effluent being measured?				
h. What is the last date of calibration of the flow meter(s)?				
i. Describe (or attach diagram if available) location of meter sites.				
j. Flow Measurement:				
	MGD	Date Recorded	Comments	
Average Daily Flow				
Minimum Daily Flow				
Maximum Daily Flow				
<b>V. Influent / Effluent</b>				
Description	Yes	No	Comments	
a. Has there been or are there any anticipated significant changes in the influent quality and / or quantity?				
b. Describe the effluent and its effect on the receiving stream.				
c. Identify or discuss any high strength or problem user of the collection system.				
<b>VI. Sampling</b>				
Description	Yes	No	Comments	
a. Identify the location where the permittee actually samples the influent and effluent for permit compliance monitoring. Include multiple points if applicable.				
b. Are sample location(s) adequate?				
c. Do the plant personnel perform their own permit compliance monitoring testing? If no, who collects and analyzes samples and for what parameters?				
d. Is each laboratory certified for these parameters?				
e. Are the sample collection methods adequate?				
f. Was a sample collected for analysis during the inspection?				
g. Has the permittee been in compliance with the KWPC Permit effluent limitations since the last inspection?				
<b>VII. Reporting and Recordkeeping</b>				
Description	Yes	No	N/A	Comments
a. Is a copy of the KWPC Permit available?				
b. Have all Discharge Monitoring Reports been submitted to KDHE on time?				
c. Are Discharge Monitoring Reports available?				
d. Are the Discharge Monitoring Reports maintained for three (3) years?				
e. Are records of laboratory instrumentation maintenance maintained for three (3) years?				
f. Are records of laboratory instrumentation calibration maintained for three (3) years?				

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Revision No. 2.0  
Revision Date: March 2009



# Inspection Format – Entrance Interview



## Pre-Inspection Checklist Wastewater Treatment Plants (WWTPs)

Your wastewater treatment plant is due for a routine inspection. Please complete the checklist and return it to the ADEQ inspector prior to the follow-up phone call. Completion of this checklist and any associated corrective actions may increase compliance.

WWTP Name: \_\_\_\_\_ Permit #: \_\_\_\_\_ Date: \_\_\_\_\_

Name and title of person completing form: \_\_\_\_\_

Missing forms, plans or templates? Visit [azdeq.gov/forms](http://azdeq.gov/forms) or click below:



[Contingency Reporting Form](#)  
[Contingency Plan Template](#)  
[Well Maintenance Guidance](#)

**Go paperless!** Managing your permits and reporting is easier than ever with myDEQ. Login or register today at [azdeq.gov/myDEQ](http://azdeq.gov/myDEQ)

### Easily addressed common deficiencies:

- Not having a current copy of the signed APP permit on-site
- Non-submittal of Self-Monitoring Reporting Forms (SMRFs)
- Non-submittals of both 5-day notifications and 30-day investigative reports
- Failure to have a contingency plan on-site
- Not maintaining a lab book on-site
- Failure to maintain WWTP in good working condition
- Operations & maintenance



Failure to maintain liner



Scum floating in clarifier



Poorly sealed POC well



Bar screen full of solids



O&M manual



Flow meter calibration



Missing reclaim signage



Vegetation within impoundment



## Pre-Inspection Checklist Wastewater Treatment Plants (WWTPs)

### General Paperwork Review

Do you have the following documents on-site and available at the time of inspection?

- ☐ Yes ☐ No
1. Signed Aquifer Protection Permit (APP)
  2. Operation & Maintenance (O&M) Manual(s)
  3. Ten (10) years of records
  4. Contingency plan
  5. Maintenance records
  6. Records:
    - a. Sampling
    - b. Log books
    - c. Bench log sheets
    - d. Lab work; including lab results and quality assurance plan (QAP)
    - e. Lab methodology
    - f. Ten (10) years
    - g. Sanitary sewer overflows (SSOs)
  7. Operator certification(s)

### Physical Facilities

Perform a walk-through of your systems and verify that the following components are installed and in good condition (if applicable).

- ☐ Yes ☐ No ☐ N/A
1. Headworks: functioning bar screen, grit chambers and removal, etc.
  2. Equalization basin(s): functioning, matching permitting
  3. Aeration, Nitrification, Oxidation ditches: good aeration, chocolate milk color
  4. Anoxic and Denitrification: no bubbles
  5. Clarifiers: primary/secondary, floating solids and scum, algae growth, weirs
  6. Process pumps: return/waste activated sludge (RAS/WAS) properly working
  7. Disinfection: chlorination and/or UV as permitted, UV bulbs burned out, etc.
  8. De-chlorination: properly stored, adequate mixing
  9. Digesters: (an)aerobic, no uniform aeration, temperature outside range, etc.
  10. Sludge removal: sludge drying beds, centrifuges, presses, etc.
  11. Facultative/treatment impoundments: maintained, liner integrity, freeboard
  12. Storage/disposal ponds: vegetation, liner integrity, berms, etc.
  13. Point of Compliance (POC) wells: maintained, protected, pad in good shape etc.
  14. Flow meters: inflow/outflow, properly calibrated
  15. Reuse: proper signage, no ponding or interaction with humans, etc.
  16. Lab reagents: pH and specific conductance not expired

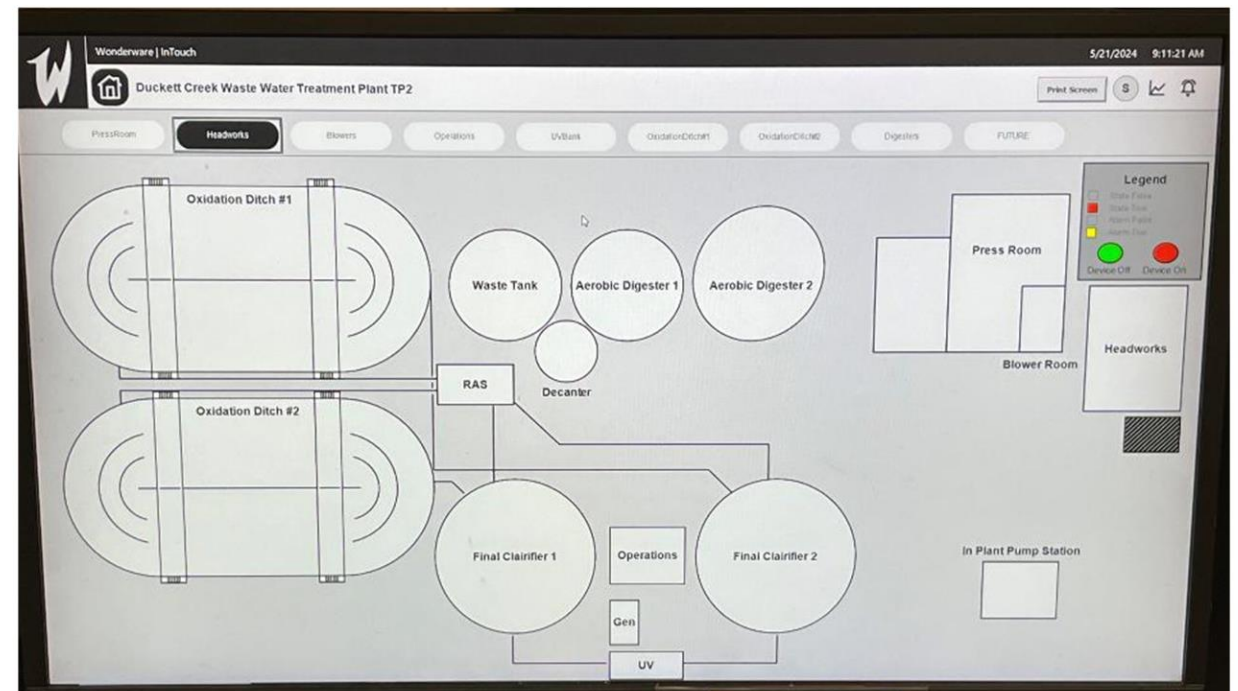
If you have answered "No" to any of the above questions, list the corrective action(s) taken to address the situation(s). If any deficiencies have not been addressed, please provide a brief explanation why. Use additional paper if needed.

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# Explain Your Plant






# Inspection Format – Records Review

- Copy of current permit
- Staffing levels
  - Copy of operator license(s) (if state has operator certification program)
- Records requiring storage of at least 3 years
  - Discharge Monitoring Reports (DMRs)
  - Lab reports
    - Permittee lab and Commercial lab
  - Electronic data entry verification
  - Bypass and SSO reports
  - Equipment calibration reports – e.g., flow meters and probes
  - Equipment maintenance reports
  - Permit-required reports – e.g., schedule of compliance reports
- 503 Biosolids reports – must be kept 5 years
- Collection system map

# Inspection Format – Records Review



Pace Analytical Services, LLC  
9608 Loiret Blvd.  
Lenexa, KS 66219  
(913)599-5665

October 17, 2024

Josh Toevs  
City of Lawrence Kansas  
1400 E 8th Street  
Lawrence, KS 66044

RE: Project: PRIORITY POLLUTANTS-Revised Report  
Pace Project No.: 60460551

Dear Josh Toevs:

Enclosed are the analytical results for sample(s) received by the laboratory on September 16, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.


The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Kansas City
- Pace Analytical Services - Ormond Beach


REVISED to include additional analyte by 625.1 on sample 60460551001, 1,2-diphenylhydrazine

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Alice Spiller  
alice.spiller@pacelabs.com  
(913)599-5665  
PM Lab Management



Pace Analytical Services, LLC  
9608 Loiret Blvd.  
Lenexa, KS 66219  
(913)599-5665

ANALYTICAL RESULTS

Project: PRIORITY POLLUTANTS-Revised Report  
Pace Project No.: 60460551

Sample: E 1625-N 1550    Lab ID: 60460551001    Collected: 09/16/24 09:39    Received: 09/16/24 13:09    Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>608.3 PCB</b>								
Analytical Method: EPA 608.3    Preparation Method: EPA 608.3 Pace Analytical Services - Indianapolis								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.10	1	09/19/24 18:26	09/24/24 22:39	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.10	1	09/19/24 18:26	09/24/24 22:39	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.10	1	09/19/24 18:26	09/24/24 22:39	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.10	1	09/19/24 18:26	09/24/24 22:39	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.10	1	09/19/24 18:26	09/24/24 22:39	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.10	1	09/19/24 18:26	09/24/24 22:39	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.10	1	09/19/24 18:26	09/24/24 22:39	11096-82-5	
<b>Surrogates</b>								
Tetrachloro-m-xylene (S)	54	%	1-112	1	09/19/24 18:26	09/24/24 22:39	877-09-8	
<b>608.3 Pesticides</b>								
Analytical Method: EPA 608.3    Preparation Method: EPA 608.3 Pace Analytical Services - Indianapolis								
Aldrin	ND	ug/L	0.050	1	09/19/24 18:26	09/24/24 21:59	309-00-2	H7,L2
alpha-BHC	ND	ug/L	0.050	1	09/19/24 18:26	09/24/24 21:59	319-84-6	
beta-BHC	ND	ug/L	0.050	1	09/19/24 18:26	09/24/24 21:59	319-85-7	
delta-BHC	ND	ug/L	0.050	1	09/19/24 18:26	09/24/24 21:59	319-86-8	
gamma-BHC (Lindane)	ND	ug/L	0.050	1	09/19/24 18:26	09/24/24 21:59	58-89-9	
Chlordane (Technical)	ND	ug/L	0.50	1	09/19/24 18:26	09/24/24 21:59	57-74-9	
alpha-Chlordane	ND	ug/L	0.050	1	09/19/24 18:26	09/24/24 21:59	5103-71-9	N2
gamma-Chlordane	ND	ug/L	0.050	1	09/19/24 18:26	09/24/24 21:59	5103-74-2	N2
4,4'-DDD	ND	ug/L	0.10	1	09/19/24 18:26	09/24/24 21:59	72-54-8	
4,4'-DDE	ND	ug/L	0.10	1	09/19/24 18:26	09/24/24 21:59	72-55-9	
4,4'-DDT	ND	ug/L	0.10	1	09/19/24 18:26	09/24/24 21:59	50-29-3	
Dieldrin	ND	ug/L	0.10	1	09/19/24 18:26	09/24/24 21:59	60-57-1	
Endosulfan I	ND	ug/L	0.050	1	09/19/24 18:26	09/24/24 21:59	959-98-8	
Endosulfan II	ND	ug/L	0.10	1	09/19/24 18:26	09/24/24 21:59	33213-65-9	
Endosulfan sulfate	ND	ug/L	0.10	1	09/19/24 18:26	09/24/24 21:59	1031-07-8	
Endrin	ND	ug/L	0.10	1	09/19/24 18:26	09/24/24 21:59	72-20-8	
Endrin aldehyde	ND	ug/L	0.10	1	09/19/24 18:26	09/24/24 21:59	7421-93-4	
Endrin ketone	ND	ug/L	0.10	1	09/19/24 18:26	09/24/24 21:59	53494-70-5	N2
Heptachlor	ND	ug/L	0.050	1	09/19/24 18:26	09/24/24 21:59	76-44-8	

# Inspection Format – Plant Inspection

MONTHLY PLANT TRIAL BENCH																				
MAY 2025																				
DATE	TIME	ORTHO-PHOS	PHOS-PHORUS	AMMONIA		FLOW MGD		NITRATE	NITRITE	TOTAL NIT	TOTAL KJEL NIT	ORP AIR ON		ORP AIR OFF		PH		TSS		
		EFFLUENT	EFFLUENT	RAW	EFFLUENT	EFFLUENT	RETURN ACTIVATED SLUDGE					EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	SOUTH OF INLET	15 AROUND BASIN	NORTH OF INLET	SOUTH OF INLET	15 AROUND BASIN
1	1:30 PM		10	28.70	0.047	1.706	1.562													
2					0.043	1.383	1.405													
3				3.91	0.022	3.202	1.685													
4						3.813	1.919													
5						3.300	1.776													
6						2.384	1.788													
7						1.872	1.807													
8	11:00 AM	11	6.15/11	19.70	.054/.029/.051	1.092	1.830													
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				

5-DAY BOD PPM		D.O. PPM			BLOWERS	
EFFLUENT COMP BOD	RAW COMP BOD	EFFLUENT	MIXED LIQUOR HIGH	MIXED LIQUOR LOW	# OF BLOWERS IN USE	ON TIME (in min)
		7.60	0.755	0.622	2	60.0
3.47	33				2	60.0
					2	60.0
					2	60.0
					2	60.0
		7.04			2	60.0
					2	60.0

# Inspection Format – Plant Inspection

**State of Missouri  
Department of Natural Resources  
National Pollutant Discharge Elimination System (NPDES)  
Discharge Monitoring Report (DMR)**

St. Louis Regional Office  
7545 South Lindbergh,  
Suite 210  
St. Louis, MO, 63125

Permit Number	Outfall Number
MO	001M
Monitoring Period	
2/1/25	2/28/25
NODI:	*****

Parameters	Reporting Requirements			Unit	Reporting Requirements		Unit
<b>Flow, in conduit or thru treatment plant</b>	*****	*****	*****	*****	5.42	4.96	Mgal/d
Mon. Location.. End of Pipe	*****:*****	*****:*****	*****:*****		Daily Max.:Monitoring Required	Monthly Avg.:Monitoring Required	
Sample Type: Total Measured							
Frequency: Weekdays							
<b>BOD, 5-day, 20 deg. C</b>	*****	6.65	5.4	mg/L	*****	*****	*****
Mon. Location.. End of Pipe	*****:*****	Weekly Avg.:15	Monthly Avg.:10		*****:*****	*****:*****	
Sample Type: 24 Hour Composite							
Frequency: Twice Every Week							
<b>Total Suspended Solids (TSS)</b>	*****	3	1	mg/L	*****	*****	*****
Mon. Location.. End of Pipe	*****:*****	Weekly Avg.:20	Monthly Avg.:15		*****:*****	*****:*****	
Sample Type: 24 Hour Composite							
Frequency: Twice Every Week							

# Inspection Format – Records Review

- Reports used to complete the permit application
  - Toxicity analysis if required
  - Priority Pollutant Analysis
- O&M manuals
  - Rarely reviewed, just verify they exist
- Emergency plans
- Maintenance records – if electronic may need to show how recorded
  - Treatment equipment
  - Lab equipment
  - Etc.



# Inspection Format – Records Review

Weekday Lagoon Checklist

Date	Influent Structure Clean	Dikes Issues	Green Color	Excess Odors	Excess Effluent Solids	Comments	Initials
4/1/2024	Y	N	Y	N	N		BB
4/2/2024	Y	N	Y	N	N		BB
4/3/2024	yes	No	Yes	No	Yes	1. Moved down splitter 2. Lots of algae...	JH
4/4/2024	Y	N	Y	N	Y	ALGAE	BB
4/5/2024	Y	N	Y	N	X	NO DISCHARGE	BB
4/8/2024							
4/9/2024							
4/10/2024							
4/11/2024							

# Inspection Format – Records Review

JOB Plus v2.8.6 - Lake Placid (C:\Job\JobPlus\JobPlus.mdb)

File Find Edit Utilities Help

Icons: [Icons for various functions like print, save, etc.]

	Week of 3/11/2019	Week of 3/18/2019	Week of 3/25/2019	Week of 4/1/2019	Week of 4/8/2019	Week of 4/15/2019	Week of 4/22/2019	Week of 4/29/2019
1	PR-2 // Phosphorus	CF-2 // 5 Year Chemical	SLG-01 // Aeration Tank	SP-2 // 5 Year Sump Pump	SLG-03 // Aeration Tank	PST-2-DRIVE // Annual	WG-03 // Aeration Tank	M-4 // Annual
2	PST-2-DRIVE // Annual	PR-2 // 5 Year Chemical	SFP-1 // Sanitary Filtrate	SP-1 // 5 Year Sump Pump	WG-04 // Aeration Tank	FST-2-DRIVE // Annual	WG-01 // Aeration Tank	M-3 // Annual
3	UVS // 6 Month UV	CL-2 // 5 Year Chemical	SG-09 // Semi-annual Dist	SP-4 // 5 Year Sump Pump	SLG-04 // Aeration Tank	PST-1-DRIVE // Annual	SLG-02 // Aeration Tank	CF-2 // Annual
4	SG-16 // Semi-annual Dist	CL-3 // 5 Year Chemical	SG-17 // Semi-annual Dist	M-3 // 6 Month Anoxic	WG-05 // Aeration Tank	AB-2 // Annual Aeration	WG-06 // Aeration Tank	PR-2 // Annual
5	SG-15 // Semi-annual Dist	GSC-1 // 5 Year	SG-14 // Semi-annual Dist	M-2 // 6 Month Anoxic	WG-09 // Aeration Tank	AB-5 // Annual Aeration	SLG-08 // Aeration Tank	PR-1 // Annual
6	SG-12 // Semi-annual Dist	GBT-1 // Annual Gravity	SG-02 // Semi-Annual	M-1 // 6 Month Anoxic	SLG-05 // Aeration Tank	AB-3 // Annual Aeration	WG-11 // Aeration Tank	CF-1 // Annual
7	SFP-2 // Sanitary Filtrate	FST-1 CE // Annual	GM-1 // Semi-annual PD	M-4 // 6 Month Anoxic	SLG-06 // Aeration Tank	AB-1 // Annual Aeration	FST-1 DRIVE // Annual	FST-2 // Annual
8	PST-2 // Corrective	SG-21 // Semi-annual Dist		BFP-1 // 6 Month Belt	WG-07 // Aeration Tank	AB-4 // Annual Aeration	AB-5 // Annual Aeration	FST-1 // Annual
9	UVS // Monthly UV	GSC-1 // Semi-Annual Grit		DIG-SJ // 6 Month	WG-08 // Aeration Tank	AB-4 // Annual Aeration	AB-1 // Annual Aeration	GS-1 // Annual
10	CF-1 // 5 Year Chemical			GBT-1 // 6 Month Gravity	SLG-07 // Aeration Tank	M-2 // Annual Anoxic Zone	AB-2 // Annual Aeration	PST-1 - CE // Annual
11				WG-02 // Aeration Tank	WG-10 // Aeration Tank	UVS // Monthly UV	AB-3 // Annual Aeration	PST-2 - CE // Annual
12					WG-12 // Aeration Tank	AT-1 FBD // Annual Air	AT-4 FBD // Annual Air	
13							AT-3 FBD // Annual Air	
14							AT-2 FBD // Annual Air	
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Work Order Detail - Open W/O

Equipment: AT-1 FBD Aeration Tank No. 1 Fine Bubble Diffusers W.O. # 1513 Closed

Task Desc: Annual Air Diffuser Inspection/Maintenance W.O. Type Preventative W.O. Priority (1-9) 4 Late > 4 Wks Late < 4 Wks Due Shipped Estimated

Assigned To: Schedule Type Floating Date Due 04/15/2019 Total Labor Hours 0 Est. Labor Hours 0 Schedule By Days Date Complete / / Total Cost \$0.00 Edit Details Task Instr. (Read Only)

W/O Notes: Last Meter Reading/Date / / Meter Due / / W/O Printed

start Job Microsoft Excel - Equ... JOB Plus v2.8.6 - Lak... 2:29 PM

SW EFC

# Inspection Format – Plant Inspection

- Determine if the facility matches the permit description
- Generally, follow the flow from the influent to the effluent
- Sometimes makes sense to go out of order - suggest that if appropriate
  - Example - if solids processing is only taking place for a limited time, view first if operating
- Will want to observe flow monitoring point(s)
  - Influent and effluent
- Will want to observe sample monitoring points
  - Are they as described in the permit?
  - If composite sampling is required by the permit:
    - Are compositors on-site?
    - Are they refrigerated?
    - Are they time or flow weighted (should be specified in the permit)



# Inspection Format – Plant Inspection

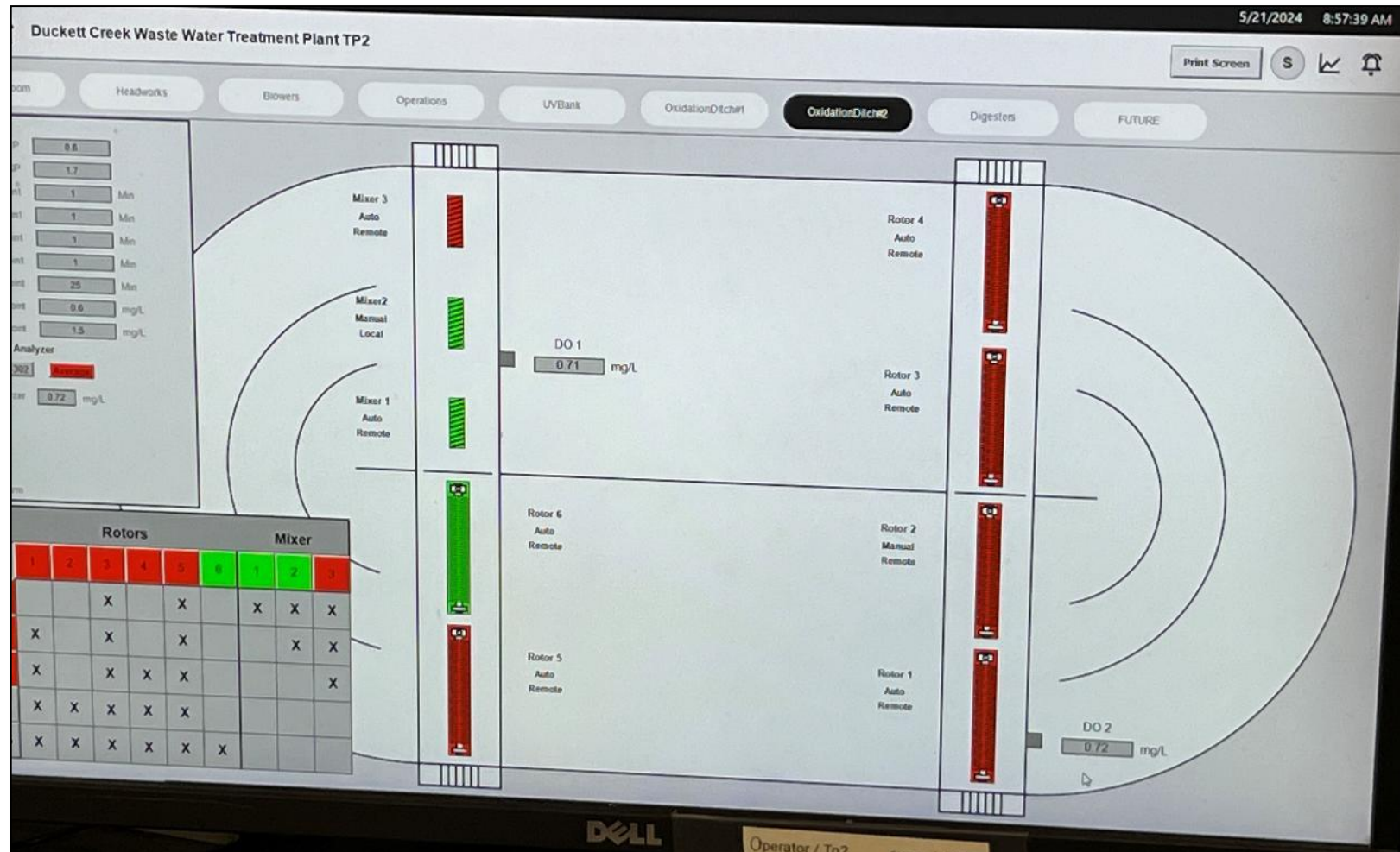
- Will evaluate:
  - Housekeeping – good housekeeping generally leaves a better impression of your plant with the inspector
  - Spare parts inventory
  - Are all units operational?
    - 40 CFR 122.41(e) requires the permittee to “*at all times properly operate and maintain all facilities and systems of treatment and control* (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.”
    - I have seen some inspectors interpret this to mean all units must be operating
      - I do not believe that is the intent
      - For example:
        - ✓ At a plant with 4 final clarifiers, flows may be low enough that it is more efficient to run only 2 or 3
        - ✓ As long as permit limits are met and the non-functioning clarifiers can be called into duty, that is OK
  - If a unit is down for repair, tell the inspector the reason and when repairs are expected to be made
    - Hopefully, you have let the regulatory agency know

# Inspection Format – Plant Inspection



Non-Functioning  
Secondary Clarifier

# Inspection Format – Plant Inspection



# Inspection Format – Plant Inspection

- Will evaluate:
  - What type of sampling is done for operational control
  - Visual observations
    - Clarifier arms moving
    - Aeration even
    - Color of activated sludge/fixed film
    - Scum/foam present
    - Odors
    - Disinfection - UV lights on or chlorinator/de-chlorinator operating
    - Solids handling – thickeners, belt presses, drying beds, etc.



# Inspection Format – Plant Inspection

- Will evaluate:
  - Evidence of overflows/spills – dried solids, standing water/sewage
  - Back up power available?
    - Is there an exercise plan?
  - The outfall
    - Color
    - Solids
    - Smells
  - Receiving water
    - Color
    - Solids build up
    - Smells
    - Aquatic life



# Inspection Format – Plant Inspection

- Will evaluate:
  - Laboratory – if applicable
    - Testing procedures – are they approved methods?
    - Maintenance records
    - Certifications – if applicable
    - Calibration records
    - Compliance with any state-specific regulations

# Inspection Format – Plant Inspection

- Will evaluate:
  - Stormwater
    - Visual observation – debris, oil sheen, spilled solids, gulleys, etc. at discharge from property
    - Best Management Practices (BMPs)
      - Pollutants under cover of a roof or awning?
      - Secondary containment for storage tanks, drums, or totes?
      - Stormwater routed around property?
    - Any required records maintained?

# Inspection Format – Plant Inspection

- What about lagoons/waste stabilization ponds?
  - Are water levels even and below the freeboard level?
  - Influent structure clean and splitting flow?
  - Transfer pipes screened?
  - Dikes
    - Good integrity?
    - Mowed?
    - Liner intact (if applicable)?
    - Animal destruction?
  - Short circuiting
  - Effluent
    - Green?
    - Solids





# Inspection Format – Exit Meeting

- Exit meeting should summarize initial findings/impressions:
  - Any noncompliance observed
    - May not be able to assess all compliance on site, so may include additional items in the written report
    - If serious enough, could issue a notice of violation on site
  - Items that may need improvement – e.g. cleaning clarifier weirs
  - If plant staff unable to provide some information during the inspection, what information needs to be provided by a fixed date – e.g. inspector may want to know the volume of a basin
  - Any questions the owner/operator may have
    - Always clarify if any item identified represents
      - Noncompliance with mandatory corrections, or
      - Recommendations

# What Comes Next

- The inspector's next steps
  - Issue a notice of violation or letter of violation
  - Issue an inspection report and the expected date for additional requests
  - Follow up inspection if needed
- Your next steps
  - Carefully review the report
    - If additional information required - provide
    - Again, identify what is a requirement and what is a recommendation
      - If requirements – you must address
      - If recommendations – address as you think best
    - If clear errors exist – respond in writing with corrections
      - If difference of opinion, perhaps let it go

# Poll 2 – What is the Records Storage Requirement?

- Forever
- 5 years in most cases
- 3 years in most cases
- Until your next inspection

# My Tips for Inspections

- Don't panic or be confrontational
  - Have a conversation with the inspector(s)
- Understand your permit requirements
- Be able to produce all required records
- Know the operational status of all treatment units
- Be able to explain your plant operation
  - Flow diagrams, pictures are a big plus
- BE HONEST
  - If you know there are problems – discuss them

# If You Cannot Sleep at Night

- EPA NPDES Compliance Inspection Manual – 918 pages
  - <https://www.epa.gov/sites/default/files/2017-01/documents/npdesinspect.pdf>

# Thank You!

Mike Tate, PE

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