

	DEPARTMENT OF ECOLOGY State of Washington	State of Washington Department of Ecology Eastern Regional Office Water Compliance Inspection Report
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Section A: National Data System Coding (i.e., PCS)

Transaction Code 1 N 2 5	NPDES # 3 WA-0045144 11	yr/mo/day 12 18/12/03 17	Inspection Type 18 C	Inspector 19 S	Fac Type 20 1
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Remarks

21 _____ 66

Inspection Work Days 67 4.5 69	Facility Self-Monitoring Evaluation Rating 70 5	BI 71 N	QA 72 N	-----Reserved----- 73 _____ 74 _____ 75 _____ 80
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Section B: Facility Data

Name and Location of Facility Inspected (<i>For industrial users discharging to POTW, also include POTW name and NPDES permit number</i>) Liberty Lake Water Reclamation Facility 1926 N. Harvard Road Liberty Lake, WA 99019	Entry Time/Date 8:50 AM 11/29/2018	Permit Effective Date 7/01/2011
	Exit Time / Date 3:45 PM 11/29/2018	Permit Expiration Date 6/30/2016
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Dan Grogg Chief Operator/ Group III /Cell 509-370-1453 Office 509-922-5443 Derek Nesbitt Field Maintenance Supervisor/ Cell 509-370-8884 Greg Sattler WRF Operator/ Group I/ Cell 509-368-4593	Other Facility Data (e.g. SIC NAICS, and other descriptive information) Extended aeration-activated sludge treatment facility with biological nutrient removal, tertiary membrane filtration, and UV disinfection	
Name, Address of Responsible Official/Title/Phone and Fax Number BiJay Adams, General Manager Liberty Lake Sewer and Water District 22510 E. Mission Ave, Liberty Lake WA 99019 Direct: (509) 922-9016 Cell: (509) 370-1574	Contacted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Discharges to Spokane River approximately 3.5 miles downstream from the Washington/Idaho Stateline	

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

<input checked="" type="checkbox"/> Permit	<input checked="" type="checkbox"/> Self-Monitoring Program	<input checked="" type="checkbox"/> Pretreatment	<input type="checkbox"/> MS4
<input checked="" type="checkbox"/> Records/Reports	<input checked="" type="checkbox"/> Compliance Schedules	<input type="checkbox"/> Pollution Prevention	<input type="checkbox"/> Other:
<input checked="" type="checkbox"/> Facility Site Review	<input checked="" type="checkbox"/> Laboratory	<input type="checkbox"/> Stormwater	
<input type="checkbox"/> Effluent/Receiving Water	<input checked="" type="checkbox"/> Operations & Maintenance	<input type="checkbox"/> Combined Sewer Overflow	
<input type="checkbox"/> Flow Measurement	<input checked="" type="checkbox"/> Sludge Handling/Disposal	<input checked="" type="checkbox"/> Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments
 (Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

Summary of findings:

- LLSWD must submit the operations and maintenance manual, including all checklists for the collection system.
- LLSWD must report all sanitary sewer overflow to Ecology per the permit requirement within 24 hours and follow up with a report providing details of the incident and corrective actions taken to prevent future overflows.
- LLSWD should provide a detailed preventative maintenance program with plan for cleaning, videoing, and then replacing sewer lines as needed.
- All calibration solutions used must be dated when opened and all expired solution must be discarded.
- The check standard concentrations should be approximately the same order of magnitude as the expected analyte concentration.
- LLSWD must have a designated dangerous waste area if they use an analytical method that generates a waste that is designated as hazardous or dangerous.
- LLSWD must have a temperature monitoring device in composite samplers, and the temperature and time the sample is taken must be recorded on the internal chain of custody.
- LLSWD must incorporate the new O&M checklist (daily, weekly and so on) into operational procedures and maintain in operations log for future inspections.

Name(s) and Signatures of Inspector(s) Diana Washington PE, Senior Engineer/Permit Manager	Agency/Office/Phone and Fax Numbers Ecology/WQ Program/Spokane 509 329-3519	Date 12/18/2018
Signature of Management Q A Reviewer Art Jenkins PE, Permit Unit Supervisor	Agency/Office/Phone and Fax Numbers Ecology/WQ Program/Spokane 509 329-3504	Date 12/18/2018

Water Compliance Inspection Report
Section D. Summary of Findings/Comments (continued)

Introduction

I met with Dan Grogg, Derek Nesbitt, and BiJay Adams at the Liberty Lake Sewer and Water District (LLSWD) treatment works at 8:50 a.m. on November 27, 2018. Greg Sattler joined the meeting towards the end of the collection system discussion.

LLSWD completed a facility upgrade in 2018 to meet the Spokane River Dissolved Oxygen Total Maximum Daily Load (DO TMDL) approved by the Environmental Protection Agency (EPA) on May 20, 2010. The last inspection was conducted by Ellie Key, Ecology permit manager, in 2016. This is the first compliance inspection since the construction of the latest upgrade was completed November 2, 2018. The upgrade included installation of a new influent screen, tertiary membranes, and ultraviolet disinfection. The upgraded treatment provides LLSWD the option of continuing to discharge to the Spokane River or to produce and distribute reclaimed water, provided they obtain a reclaimed water permit.

The inspection covered three areas: the collection system, the laboratory, and the treatment works. The inspection included a review of all required documents, reporting, operations, and maintenance for all aspects of the collection system, laboratory, and treatment works. We discussed the potential for issues with LLSWD industrial dischargers but BiJay indicated that the facility does not receive industrial waste that require permits from the district or Ecology. The Districts engineers review discharge and potential for needing a permit prior to issuance of the connection to the system.

BiJay said that all commercial dischargers are required to minimize discharge of fats, oils, and grease by maintaining grease traps and oil-water separators. The inspection did not go into depth with respect to reviewing the pretreatment documentation and industrial user surveys. This will be included in the next inspection.

Collection system

Derek Nesbitt, the maintenance supervisor responsible for the collection system, provided documentation and answered questions with Dan regarding the collection system. The service area for LLSWD does not include all of the dischargers within the Liberty Lake city boundary. Some of homes and businesses, including those located north of I-90 and west of Harvard Road, are within the sewer service area for Spokane County. The collection system map provided (Photo 1) includes 16 lift stations, numerous small segments of pressure main, cleanouts and manholes. The collection system consist of 2-inch force mains up to 10-inch gravity pipelines. The interceptor is 21-inch concrete pipe which collects sewage and conveys it under Interstate 90 to the treatment facility on the north side of the interstate. LLSWD owns all portions of the collection system within their service area. The *Rules, Regulations, and Bylaws Governing Sewer System for Liberty Lake Sewer & Water District #1* includes requirements that all collection systems be constructed to LLSWD collection system specifications and be turned over to LLSWD upon completion.

LLSWD uses a Google Drive platform to facilitate their collaborative work. All components of the wastewater collection system and water distribution system are located on GIS layers and available to all staff as they complete work orders. These layers are also part of the asset management database. All maintenance activities are added to the file and historic issues are cross referenced to the property address. Historical issues are taken into consideration when a problem is reported by the public or identified by the maintenance staff.

When the public reports an issue, they contact the LLSWD billing office. The billing office creates a service order and adds the call to the Caselle asset management database. The service order goes to the field staff and they verify the cause. If a side sewer plug caused the sanitary sewer overflow, the property owner is responsible for addressing the issue. If it is caused by a plug or backup in the collection main or lift station, LLSWD completes a work order and closes out the service order. The work order goes into Google Calendar until the work is completed and then the closed-out work order is added to the history for the property.

When asked if they report each sanitary sewer overflow to Ecology, the staff said that they do not. I informed Bijay and the staff that the permit specifically requires 24-hour reporting for all sanitary sewer overflows per section 3F.1.e. This part of the permit specifies all sanitary sewer overflows including those caused by side sewers are to be reported within 24 hours. They said that they will start reporting these notifications.

Each lift station has a paper copy of the O&M manual available for the pumps. These are also available via Google Drive. Staff discussed the new lift station and said that they do not have the new O&M for that location. Staff told me that the pumps are the same model as used in other lift stations. LLSWD will request the O&M for the new station from the contractor, and in the meantime they will use a copy of an existing lift station O&M manual and place it in the lift station as a reference until the new one is available. Derek reviews the pump usage on a regular basis, and identifies potential issues based on increases or changes in the number of hours the pumps operated.

Each lift station has a redundant pump so the pumps can be serviced without having to take the lift stations off line. Some of the lift stations have onsite backup power and some require a mobile unit. When a power outage occurs, the alarm notifies the maintenance staff on call and if no response is received, a call goes out on the auto-dialer list until a response is made by maintenance staff. Staff indicated that the collection system has adequate storage to allow time for the mobile unit to arrive

and engage without sewer overflow into houses or the street. LLSWD checks the switches weekly and the load is actually transferred to verify that the generator effectively takes the load and the pumps can continue normal operation. LLSWD subcontracts the annual generator testing.

LLSWD does not have a preventative maintenance program for the collection system. LLSWD said that it is a newer collection system and they experience minimal infiltration and inflow (I&I). Derek did add that they have a couple of older developments, specifically those by the lake, that do have more maintenance issues. I encouraged LLSWD to develop a preventative maintenance and pipe replacement program. This will benefit the sewer district by preventing violations due to illicit discharges when pipes fail. The preventative maintenance is a typical part of the operations and maintenance for collection systems. Additionally, it allows staff the opportunity to inspect manholes on a regular basis and identify potential illicit inputs into the collection system.

In summary, LLSWD should address the following items with respect to their collection system:

- LLSWD must submit the complete O&M manual for the collection system, including all checklists to Ecology for approval. This document should be in electronic format and submitted through the web portal.
- LLSWD must report all sanitary sewer overflow to Ecology within 24 hours and follow-up with a report providing details of the incident and corrective actions taken to prevent future overflows.
- LLSWD should provide a detailed preventative maintenance program for the collection system with a plan for cleaning, videoing, and then repairing or replacing the sewer line as needed.

Laboratory

LLSWD has an accredited lab under the State of Washington Lab Accreditation Program. The lab recently moved and due to the move is in interim status until an Accreditation Unit audit is completed. Liberty Lake Water Reclamation Facility Laboratory, accreditation #W710, is accredited for the following non-potable water analytes: ammonia, biochemical oxygen demand (BOD), fecal coliforms, dissolved oxygen (DO), orthophosphate, total phosphorous, total suspended solids (TSS), and pH. Though in interim status, the lab is still allowed to run samples for accredited parameters.

Greg Sattler, Group I operator, works in the lab. Greg works under Dan Grogg, a Group III operator. Greg is working on the review and update of the quality assurance manual and standard operating procedures for the lab. The lab is working to get accredited for low level phosphorous testing. The lab sends metals testing to Accurate Testing Labs LLC in Coeur d'Alene, Idaho. The priority pollutant sampling goes to Anatek Labs, Inc. in Spokane, Washington. Both of these labs provide a chain of custody with the report.

The lab bench sheets should include sample collection time, samplers name, sample location, and time held before sample is analyzed. The bench sheets have space to record the name of the sampler but this information has not always filled in. The operator in responsible charge should verify that all documents are completed and that records are stored for three years according to the permit requirements. All operational parameters should be recorded and all operational changes noted in operations log.

The visual inspection of the lab found it to be clean and orderly. The equipment was in good working order and appeared to be well maintained as documented in Photos 9, 10, and 11. The operator autoclaves all bacteria cultures prior to disposal. They also autoclave glassware used for fecal testing. Autoclave tape is used to verify autoclave temperature.

The following laboratory issues need to be addressed:

- All calibration solutions used must be dated when opened and all expired solution must be discarded.
- The check standard concentrations should be approximately the same order of magnitude as the expected analyte concentration.
- LLSWD must have a designated dangerous waste area in the lab if they use an analytical method that generates a waste designated as hazardous or dangerous.

Treatment Works Operations

The LLSWD wastewater treatment facility received the perfect compliance award for 2017. I gave the award to BiJay and agreed to present it to the staff at the District meeting on January 14, 2018. The treatment works inspection began with a review of the required documentation. The facility construction was completed November 2, 2018. The O&M manual for the updated treatment works was provided on a DVD and will be uploaded to PARIS. Ecology will send either an approval letter or comment letter to LLSWD after the document has been reviewed.

Dan said the district also uses Google Drive to track maintenance at the treatment works. O&M and operator logs were available for review through their Google Drive database. Dan has paper logs that go back to 1982 when he first started at the facility. The last few years of documents were also available online and operators use a smart pad to input data when they make rounds of the facility. LLSWD is optimizing the new tertiary treatment units. The operator takes several readings a day and documents changes. All of the operators participate in operational decisions so that everyone understands why changes

were made and then, as a team, they are better able to identify, communicate, and troubleshoot when operational changes are not working.

The facility consist of the following unit operations:

- Influent screen (Photos 15, 16, & 17)
- Equalization basin
- Biological selector (anoxic/anaerobic tank) (Photo 19)
- Aeration basin (Photo 20)
- Secondary clarifier
- Chemically enhanced solids removal
- Enhanced solids removal rapid mix tank and flocculation tank
- Tertiary membranes and permeate pumps (Photo 33)
- Clean in place system (Photo 26)
- UV disinfection (Photo 23)
- Sludge holding tank (Photo 21)
- Solids belt press

A visual inspection of the facility identified that the site was clean and well maintained (Photos 15 through 40). Everything appeared to function and operate as designed. The operational staff were knowledgeable and discussed issues they have resolved. One significant issue was the chemical delivery system for the clean-in-place components, which has several compression fittings. The operators indicated that identifying and fixing leaks in the system took significant resources.

During the visual inspection of the facility, I noted that the aeration basin looked like it was running thin. The operator said that due to the changes with the biological selectors, they were having to run the aeration basin concentration at 1500 mg/L mixed liquor suspended solids (MLSS). They indicated that the settling and the phosphorous removal were poor if they run at a higher mixed liquor concentration. The operators stated that if they did not have an equalization basin to take some of the load off the system, it would be much harder to maintain compliance with the permit limits. The treatment system was designed to accommodate much higher flows, according to the operators and BiJay. They have numerous tanks that are not in use at this time as a result of the excess capacity.

Dan found that digesting solids wasted from the clarifiers can cause significant increases in the total phosphorous levels being returned to the headworks. The district has experimented with not digesting the wasted solids, but that limits what they can do with the partially treated biosolids. They are currently having to transport solids to a composting facility instead of being able to land apply them.

After biological nutrient removal and the activated sludge treatment process steps, secondary effluent discharges to the enhanced solids removal process and tertiary membranes (Photos 25 through 38). LLSWD was instructed by the manufacturer to start up using three of the membrane banks. Due to the current system flow volumes being considerably less than what the plant was designed for, the district is running the treatment unit as a batch system so that the membranes do not dry out. This has caused issues with the pumps due to the lower than expected pumping rates. The operators said they are working with the company to adjust the SCADA monitoring system to eliminate the errors reported due to the very low pump rates. The tertiary treatment has a separate backup power source. The generator is cycled regularly and load tested.

The operators showed me a ball valve (Photo 28) that was originally part of the enhanced chemical solids removal system. They had to remove it and reconfigure the system because within two days of starting operations, the precipitate formed and scaled up the valve to the point that it would not turn. LLSWD fixed this issue by putting in a drip delivery with an air gap. This keeps the treated wastewater from mixing with the coagulant prior to the rapid mix chamber.

The clean-in-place system was initially installed incorrectly. This system operates by injecting acid or base into the membranes by pH readings. The chemicals were injecting into the waste line and looping back, and not going into the membranes. Because of the location of the control loop you could not see that the membranes were not being cleaned. The operators identified the issues and corrected the problem. The compression fitting used in the system caused ongoing issues with leaks.

The operators used an equalization basin to retain the clean-in-place flows, and flows from the membranes, until the issue was discovered and addressed. LLSWD did not have to discharge in violation of the permit limits.

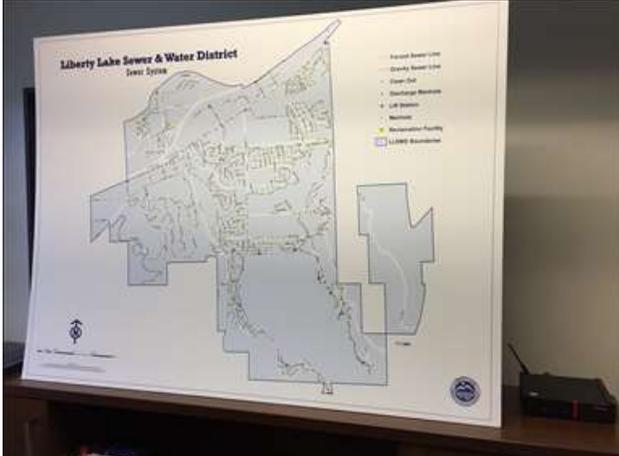
The composite samplers were inspected. Thermometers were not kept in the units and the sample felt warm to the touch (Photo 13).

The operators verify flow rates and check the calibration of the Parshall Flume flow gauge daily. They verify the in-line continuous pH regularly with the lab pH meter.

The solids train consist of a solids storage tank which was the aerobic digester. However, operators reported that running as a digester causes release of significant amounts of phosphorous back to the headworks with the supernatant. The solids are fed from the storage tank to the belt press approximately once a week. The solids press feeds to a truck trailer and is hauled to Boulder Park Inc. located in Mansfield Washington. The facility is a beneficial use facility contracted to transport, till and apply LLSWD's Class B biosolids. The supernatant and the effluent from the press room goes back to the equalization basin.

LLSWD must correct the following treatment works issues:

- LLSWD must have a temperature monitoring device inside the composite samplers. The temperature and time the sample is taken must be recorded on the internal chain of custody.
- LLSWD must incorporate an O&M checklist (daily, weekly and so on) into operational procedures and maintain in operations log for future inspections.

Description	Photographs	Image Name
Collection system map		Photo 1
O&M manuals		Photo 2

Example of scheduled maintenance summary

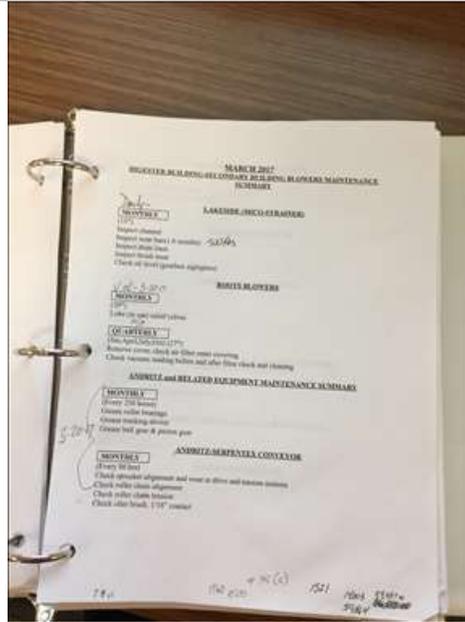


Photo 3

Example of scheduled weekly maintenance tasks

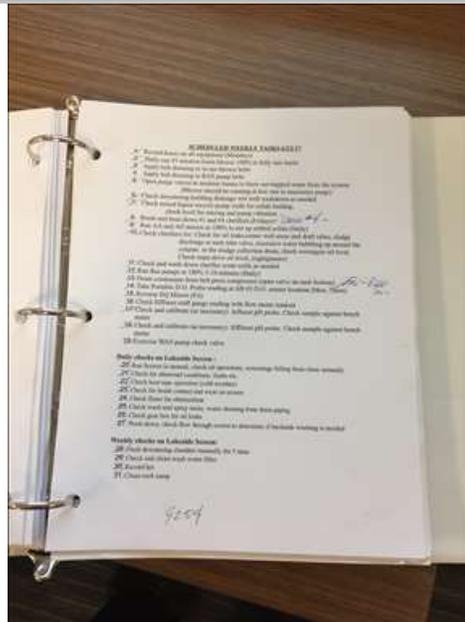


Photo 4

Operations monitoring system provides real time unit operations information



Photo 5

BOD incubator with check thermometer



Photo 9

Solids drying oven with thermometer



Photo 10

Water bath with thermometer



Photo 11

<p>Headworks at sample collection site</p>		<p>Photo 12</p>
<p>Composite sampler collecting sample does not have required internal thermometer and sample container.</p>		<p>Photo 13</p>
<p>Sampler tube location placement at influent pipe</p>		<p>Photo 14</p>

<p>Old screw conveyor screen is now back-up screen</p>		<p>Photo 15</p>
<p>New screw conveyor screen</p>		<p>Photo 16</p>
<p>New screw conveyor screen insulated cover protects from low temperatures</p>		<p>Photo 17</p>

Screw conveyor solids collection and disposal



Photo 18

Anaerobic/anoxic selector



Photo 19

Aeration basin



Photo 20

Sludge holding tank with coarse bubble diffuser



Photo 21

Solids haul trailer



Photo 22

UV units



Photo 23

Effluent Parshall Flume



Photo 24

Liberty Lake uses hazardous chemical placards on the buildings containing the chemicals



Photo 25

Clean-in-place system and chemical reservoirs



Photo 26

The operator can't access the membrane feed pumps without climbing over or under the pumps



Photo 27

This ball valve was used on the alkalinity chemical-process water feed to the rapid mix tank



Photo 28

Ball valve replaced by a drip line with an air gap

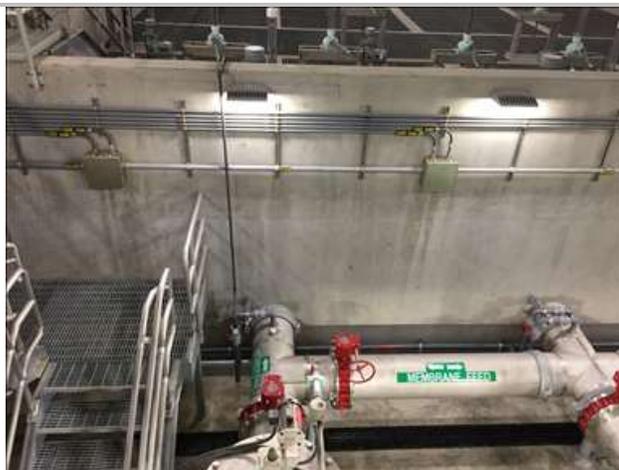


Photo 29

Rapid mix basin (top of the photo) discharges through gate valve to flocculation basin



Photo 30

Blower offline



Photo 31

Delta blower



Photo 32

Permeate pumps and clean in place valves



Photo 33

Clean-in-place system piping, valves and chemical reservoirs.



Photo 34

Continuous turbidity readings



Photo 35

Clean-in-place pH readings and controllers



Photo 36

Clean-in-place valves originally installed on the effluent side is now installed correctly and all leaks have been resolved



Photo 37

Operations station for the membranes



Photo 38

<p>Membrane backup power source</p>		<p>Photo 39</p>
<p>Photo of the photo of the original plant upgraded in 1983</p>		<p>Photo 40</p>

Section D: COMPLETED BY: Diana Washington PE
TITLE: Senior Engineer/Permit Manager

DATE: 11/29/2018
TELEPHONE: 509-329-3519

INSTRUCTIONS

Section A: National Data System Coding (i.e., PCS)

Column 1: Transaction Code: Use N, C, or D for New, Change, or Delete. All inspections will be *new* unless there is an error in the data entered.

Column 3 - 11: NPDES Permit No.: Enter the facility's NPDES permit number – third character in permit number indicates permit type for U=unpermitted, G=general permit, etc.. (Use the Remarks columns to record the State permit number, if necessary.)

Columns 12 - 17: Inspection Date: Insert the date entry was made into the facility. Use the year/month/day format (e.g., 94/06/30 = June 30, 1994).

Column 18: Inspection Type*: Use one of the codes listed below to describe the type of inspection:

A	Performance Audit	U	IU Inspection with Pretreatment Audit	!	Pretreatment Compliance (Oversight)
B	Compliance Biomonitoring	X	Toxics Inspection	@	Follow-up (enforcement)
C	Compliance Evaluation (non-sampling)	Z	Sludge – Biosolids	{	Stormwater-Construction-Sampling
D	Diagnostic	#	Combined Sewer Overflow-Sampling	}	Stormwater-Construction-Non-Sampling
F	Pretreatment Follow-up	\$	Combined Sewer Overflow-Non-Sampling	:	Stormwater-Non-Construction-Sampling
G	Pretreatment (Audit)	+	Sanitary Sewer Overflow-Sampling	~	Stormwater-Non-Construction-Non-Sampling
I	Industrial User (IU) Inspection	&	Sanitary Sewer Overflow-Non-Sampling		Sampling
M	Multimedia	\	CAFO-Sampling	<	Stormwater-MS4-Sampling
N	Spill	=	CAFO-Non-Sampling	-	Stormwater-MS4-Non-Sampling
O	Compliance Evaluation (Oversight)	2	IU Sampling Inspection	>	Stormwater-MS4-Audit
P	Pretreatment Compliance Inspection	3	IU Non-Sampling Inspection		
R	Reconnaissance	4	IU Toxics Inspections		
S	Compliance Sampling	5	IU Sampling Inspection With Pretreatment		
		6	IU Non-Sampling Inspection with Pretreatment		
		7	IU Toxics With Pretreatment		

Column 19: Inspector Code: Use one of the codes listed below to describe the *lead agency* in the inspection

A - State (Contractor)	O - Other Inspectors, Federal/EPA (Specify in Remarks columns)
B - EPA (Contractor)	P - Other Inspectors, State (Specify in Remarks columns)
E - Corps of Engineers	R - EPA Regional Inspector
J - Joint EPA/State Inspectors-EPA Lead	S - State Inspector
L - Local Health Department (State)	T - Joint State/EPA Inspectors-State Lead
N - NEIC Inspectors	

Column 20: Facility Type: Use one of the codes below to describe the facility.

- 1 - Municipal. Publicly Owned Treatment Works (POTWs) with 1987 Standard Industrial Code (SIC) 4952.
- 2 - Industrial. Other than municipal, agricultural, and Federal facilities.
- 3 - Agricultural. Facilities classified with 1987 SIC 0111 to 0971.
- 4 - Federal. Facilities identified as Federal by the EPA Regional Office.
- 5 - Oil & Gas. Facilities classified with 1987 SIC 1311 to 1389

Columns 21-66: Remarks: These columns are reserved for remarks at the discretion of the Region.

Columns 67-69: Inspection Work Days: Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection and submit a QA reviewed report of findings. This estimate includes the accumulative effort participating inspectors; any effort for laboratory analyses, testing, and remote sensing; and the billed payroll time for travel and pre and post inspection preparation. This estimate does not require detailed documentation.

Column 70: Facility Evaluation Rating: Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs.

Column 71: Biomonitoring Information: Enter D for static testing. Enter F for flow through testing. Enter N for no biomonitoring.

Column 72: Quality Assurance Data Inspection: Enter Q if the inspection was conducted as follow-up on quality assurance sample results. Enter N otherwise.

Columns 73-80: These columns are reserved for regionally defined information.

Section B: Facility Data

This section is self-explanatory except for "Other Facility Data," which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, and other updates to the record).

Section C: Areas Evaluated During Inspection

Check only those areas evaluated by marking the appropriate box. Use Section D and additional sheets as necessary. Support the findings, as necessary, in a brief narrative report. Use the headings given on the report form (e.g., Permit, Records/Reports) when discussing the areas evaluated during the inspection.

Section D: Summary of Findings/Comments

Briefly summarize the inspection findings. This summary should abstract the pertinent inspection findings, not replace the narrative report. Reference a list of attachments, such as completed checklists taken from the NPDES Compliance Inspection Manuals and pretreatment guidance documents, including effluent data when sampling has been done. Use extra sheets as necessary.

*Footnote: In addition to the inspection types listed above under column 18, a state may continue to use the following wet weather and CAFO inspection types until the state is brought into ICIS-NPDES: K-CAFO, V-SSO, Y-COS, W-Stormwater, 9-MS4. States may also use the new wet weather CAFO and MS4 inspection types show in column 19 of this form. The EPA regions are required to use the new wet weather CAFO and MS4 inspection types for inspections with an inspection date (DTIN) on or after July 1, 2005.

Attachment - Single Event Violation Table - Codes and Descriptions*

CODE	DESCRIPTION
Effluent Violations	
A0018	Approved Bypass
A0013	Failed Toxicity Test
A0023	Industrial Spill
A0017	Inspection sample above historic DMR range
A0022	Narrative Effluent Violation
A0012	Numeric effluent violation
A0016	Reported Fish Kill
A0011	Unapproved Bypass
A0015	Unauthorized Discharge of Brine
Management Practice Violations	
B0019	Best Management Practice Deficiencies
B0024	Biosolids/Sewage Sludge Violation (Part 503)
B0026	Failure to Allow Entry
B0012	Failure to Conduct Inspections
B0027	Failure to Develop Adequate SPCC Plan
B0017	Failure to develop any or adequate SWPPP/SWMP
B0011	Failure to Develop/Enforce Standards
B0028	Failure to Implement SPCC Plan
B0018	Failure to Implement SWPPP/SWMP
B0041	Failure to Maintain Records
B0040	Improper Chemical Handling
B0023	Improper Land Application (non-503, non-CAFO)
B0020	Improper Operation and Maintenance
B0025	Inflow/Infiltration (I/I)
B0021	Laboratory Not Certified
B0022	No Licensed/Certified Operator
B0042	Violation of a milestone in an order
Monitoring Violations	
C0017	Analysis not Conducted
C0011	Failure to Monitor for non-Toxicity Requirements

CODE	DESCRIPTION
CSO	
A0C18	Approved Bypass
A0024	Dry weather overflow
B0030	Failure to Develop Adequate LTCP
B0031	Failure to Implement LTCP
B0029	Failure to Implement Nine Minimum Controls (NMCs)
BC291	Failure to implement required NMC #1(Proper operation and maintenance)
BC292	Failure to implement required NMC #2 (Maximum use of the collection system)
BC293	Failure to implement required NMC #3 (Review pretreatment requirements)
BC294	Failure to implement required NMC #4 (Maximization of flow)
BC295	Failure to implement required NMC #5 (Elimination of dry weather flow)
BC296	Failure to implement required NMC #6 (Control of solids)
BC297	Failure to implement required NMC #7 (Pollution prevention programs)
BC298	Failure to implement required NMC #8 (Public notification)
BC299	Failure to implement required NMC #9 (Monitoring)
B0C41	Failure to Maintain Records or Meet Record Keeping Requirements
C0C11	Failure to monitor
E0C16	Failure to submit required report (non-DMR)
E0C13	Improper/Incorrect reporting
B0044	LTCP implementation schedule milestone missed
A0C22	Narrative effluent violation
E0C14	Noncompliance with section 308 Information Request
A0C12	Numeric effluent violation
A0C11	Related Unapproved Bypass
A0021	Unauthorized CSO Discharge to Waters/Wet Weather
A0025	Unauthorized overflow to dry land or building backup
B0045	Violation of a milestone in a permit
B0C42	Violation of a milestone in an order
SSO	
A0S18	Approved Bypass
A0020	Discharge to Waters

CODE	DESCRIPTION
C0021	Failure to Monitor for Toxicity Requirements
C0015	Frequency of Sampling Violation
C0018	Improper Analysis or Lab Error
C0014	Invalid/Unrepresentative Sample
C0016	No Flow Measurement Device
Permitting Violations	
D0014	Application Incomplete
D0011	Discharge Without a Valid Permit
D0012	Failure to Apply for a Permit
D0015	Failure to Pay Fees
D0016	Failure to Submit Timely Permit Renewal Application
D0013	Unapproved Operation
D0017	Violation Specified in Comment

Reporting Violations	
E0017	Failure to Notify
E0012	Failure to Submit DMRs
E0016	Failure to submit required report (non-DMR, non-pretreatment)
E0013	Improper/ Incorrect Reporting
E0011	Late Submittal of DMRs
E0014	Noncompliance with Section 308 Information Request
Pretreatment	
C0012	Baseline Monitoring Report Violation
B0P12	Failure to Conduct Inspections
B0P11	Failure to Develop/Enforce Standards
B0013	Failure to Enforce Against I/U
B0015	Failure to Establish Local Limits
C0013	Failure to Establish Self-Monitoring Requirements
B0014	Failure to Issue SIU Permits
B0016	Failure to Meet Inspection and Sampling Plan for SIUs
E0015	Failure to submit required report (non-DMR)
B0P40	Improper Chemical Handling

CODE	DESCRIPTION
D0S11	Discharge without a valid permit (includes satellite systems)
B0S41	Failure to Maintain Records or Meet Record Keeping Requirements
C0S11	Failure to monitor
E0018	Failure to report other violation
E0019	Failure to report violation that may endanger public health 122.41(1)(7)
D0S12	Failure to submit required permit application info (includes satellite systems)
B0S20	Improper Operation and Maintenance
A0S22	Narrative effluent violation
E0S14	Noncompliance with section 308 Information Request
A0S12	Numeric effluent violation
A0026	Overflow to Dry Land or Building Backup
A0S11	Related Unapproved Bypass
BS42A	Violation of milestone in an administrative order
BS42J	Violation of milestone in judicial decree
B0046	Violation of sewer moratorium or restriction
Stormwater Construction	
D0R11	Discharge without a permit
D0R18	Failure to apply for a notice of termination
B0R12	Failure to Conduct Inspections
B0C17	Failure to develop any or adequate SWPPP/SWMP
B0C18	Failure to Implement SWPPP/SWMP
B0R41	Failure to Maintain Records
C0R11	Failure to Monitor
BR19A	Failure to properly install/implement BMPs
BR19B	Failure to properly operate and maintain BMPs
D0R12	Failure to submit required permit application information
E0R16	Failure to submit required report (non-DMR)
A0R22	Narrative effluent violation
E0R14	Noncompliance with section 308 Information Request
A0R12	Numeric Effluent Violation
B0R42	Violation of a milestone in an order
Stormwater MS4	
D0M11	Discharge without a permit

CODE	DESCRIPTION
A0014	IU Violation of Pretreatment Standards
CAFO	
B0A19	Best Management Practice Deficiencies
B0038	Direct Animal Contact with Waters of US
D0A11	Discharge without a permit
B0A12	Failure to Conduct Inspections
B0032	Failure to Develop any or adequate NMP
B0033	Failure to Implement NMP
B0A41	Failure to Maintain Records or Meet Record Keeping Requirements
B0043	Failure to meet order final compliance date
C0A11	Failure to Monitor
D0A12	Failure to submit required permit application information
C0019	Failure to Test Manure
B0A40	Improper Chemical Handling
B0A23	Improper Land Application
B0039	Improper Manure Handling (not including land application)
B0037	Improper Mortality Management
B0036	Improper O&M of Storage Facility
E0A13	Improper/Incorrect reporting
B0034	Insufficient Buffers/Setbacks
B0035	Insufficient Storage Capacity
A0A22	Narrative effluent violation
E0A16	No Annual Report Submitted
C0020	No Depth Marker
E0A14	Noncompliance with section 308 Information Request
A0A12	Numeric effluent violation
A0019	Production Area Runoff
B0A42	Violation of a milestone in an order

CODE	DESCRIPTION
D0M18	Failure to apply for a notice of termination
B0M12	Failure to Conduct Inspections
B0M17	Failure to develop any or adequate SWPPP/SWMP
B0M18	Failure to Implement SWPPP/SWMP
B0M41	Failure to Maintain Records or Meet Record Keeping
C0M11	Failure to Monitor
BM19A	Failure to properly install/implement BMPs
BM19B	Failure to properly operate and maintain BMPs
D0M12	Failure to submit required permit application information
E0M16	Failure to submit required report (non-DMR)
A0M22	Narrative effluent violation
E0M14	Noncompliance with section 308 Information Request
A0M12	Numeric Effluent Violation
B0M42	Violation of a milestone in an order
Stormwater Non-Construction	
D0N11	Discharge without a permit
D0N18	Failure to apply for a notice of termination
B0N12	Failure to Conduct Inspections
B0N17	Failure to develop any or adequate SWPPP/SWMP
B0N18	Failure to Implement SWPPP/SWMP
B0N41	Failure to Maintain Records
C0N11	Failure to Monitor
BN19A	Failure to properly install/implement BMPs
BN19B	Failure to properly operate and maintain BMPs
D0N12	Failure to submit required permit application information
E0N16	Failure to submit required report (non-DMR)
A0N22	Narrative effluent violation
E0N14	Noncompliance with section 308 Information Request
A0N12	Numeric Effluent Violation
B0N42	Violation of a milestone in an order

* N. B. The codes and code names listed herein may change over time. Please consult ICIS-NPDES and PCS system documentation for updated lists.