DEQ WQ Inspection Report Checklist

NPDES Minor Domestic Permits

State of Oregon Department of Environmental Quality

Permittee: City of Oakridge	**Date: 7/7/2022**	**DEQ File #: 62886** **EPA ID #: OR0022314**
Facility address and location: 47927 LaDuke Road Oakridge, OR 97463		
Primary DEQ inspector name: Gus Glaser		

Brief facility description: Sequencing Batch Reactor (SBR) treatment plant with UV disinfection, placed into service in 1994.

Prior inspection date, summary of findings, and permittee response: Inspection on 9-16-2014 Recommnedations: Implement a laboratory QA/QC program, provide standby power for aeration basin blowers, maintain a written log book for collection system maintenance. Permittee response: Collection system maintenance is now tracked and recorded in log book, QA/QC manual was not developed, blowers still are not supplied with standby power.

I. PRE-INSPECTION PREPARATION				
Complete this section prior to going to facility. ***Request ICIS report of violations and NODI code use from WQ Data Crew, then answer the follow questions.***				
1.	Y X	N	NA	Have all DMRs been submitted on time? If no, explain:
2.	Y X	N	NA	Are all DMRs complete and accurate? (e.g., no “non-receipt” violations and correct NODI code use) If no, explain:
3.	Y X	N	NA	Is the person signing DMRs a principal executive officer, ranking elected official or duly authorized representative? If no, explain:
4.	Y X	N	NA	Have all effluent limits been met? If no, list limits that have not been met:

I. PRE-INSPECTION PREPARATION				
5.	Y	N	NA X	Have all violations been resolved with an enforcement action? If no, list unresolved violations:
6.	Y	N X	NA	Does the ICIS report include any schedule violations? If yes, list below and note if these violations are resolved:
7.	Y	N X	NA	Does the ICIS report include any single event violations? If yes, list below and note if these violations are resolved:
8. Other comments on ICIS report:				
Download NetDMR CORs back to most recent WL or PEN. One year is minimum. Three (3) years is maximum. Date range of NetDMR CORs reviewed:				
9.	Y X	N	NA	Do all DMRs include a daily data attachment (DDA)? If no, list missing attachments:
10.	Y X	N	NA	Do the DDAs show all the summary statistic calculations and do the DDA calculated values statistics match the values in the NetDMR DMR? If no, explain:
11.	Y X	N	NA	If the discharge is intermittent, do they monitor effluent on discharging days only? If no, explain:
12. List all monitoring requirements not in the NetDMR set up (e.g., WET tests, biosolids, land application):				
Review ACES non-DMR reporting requirements from past three years. Does ACES contain all non-DMR reporting requirements from Schedule B, C, or D? If no, update ACES.				
13.	Y X	N	NA	Have all non-DMR reports (e.g., WET tests, biosolids, land application) been submitted? List or attach list of missing reports:

I. PRE-INSPECTION PREPARATION				
14. List all effluent limits not in the NetDMR set up (e.g., WET tests show no toxicity at edge of RMZ):				
15.	Y X	N	NA	Has all monitoring been done at the required frequency, including requirements not in the NetDMR setup? If no, explain:
16.	Y X	N	NA	Are monitoring events representative (spread out during the period)? For example, twice a month monitoring should be done during the first and second week of the month. Twice a week monitoring should be done during the first part and last part of the week (e.g., Mon and Thu). If no, explain:
17.	Y	N	NA X	Have all numeric effluent limits not in the NetDMR set up been met? If no, list limits that have not been met:
18.	Y	N	NA X	Has the permittee attached a noncompliance report for all permit violations? If no, explain:
19. Comments on NetDMR attachments and other reporting requirements:				
20.	Y	N	NA X	Has the permittee completed MAO requirements? "NA" is no MAO. If no, explain:
21. Attach or summarize all WLs and PENs within the prior 36 months:				

I. PRE-INSPECTION PREPARATION
22. Order split sample kit from DEQ lab. Summarize results of previous split sampling events:

II. OPENING CONFERENCE			
Introductions, present credentials, and explain inspection objectives. List people present (include other DEQ and EPA employees).			
Name	**Title**	**Phone Number**	**Email**
Gus Glaser	Water Quality Compliance Specialist	503.708.9171	Gus.glaser@deq.oregon.gov
Jon Gasik	Senior WQ Environmental Engineer	971.283.1873	Jon.gasik@deq.oregon.gov
Clint Whitney	Wastewater Operator	541.556.8056	clintwhitney@ci.oakridge.or.us
James Cleavenger	City Administrator	503.990.9368	cityadministrator@ci.oakridge.or.us
Robert Chrisman	Public Works Maintenance Supervisor	541.954.3121	robertchrisman@ci.oakridge.or.us

III. FACILITY SITE REVIEW				
List any facility modifications since last inspection: Solids compactor is planned for improvements and modifications.				
1.	Y X	N	NA	Are all treatment units operable? If no, explain:
2.	Y	N X	NA	Is there excessive scum buildup, grease, foam, or floating sludge in or on any of the treatment units? If yes, explain:
3.	Y X	N	NA	Are tank weirs level? If no, explain:
4.	Y	N X	NA	Is there any indication of a hydraulic overload? If yes, explain:
5.	Y	N X	NA	Are there any noxious odors leaving the site? If yes, explain:
6.	Y	N X	NA	Are there any unsafe conditions (e.g., slicks, faulty guardrails, missing grating)? If yes, explain:
7.	Y	N X	NA	Is there any evidence of severe corrosion in any piping or equipment? If yes, explain:

III. FACILITY SITE REVIEW				
8.	Y	N X	NA	Are there any breaks or leaks in any chemical feed lines or other piping? If yes, explain:
9.	Y	N X	NA	Is there any surcharging of influent lines, overflow weirs, or other structures? If yes, explain:
10.	Y	N	NA X	If the facility receives hauled waste (e.g., septage), is this done in accordance with a hauled waste plan? If no, explain: Facility does not accept any hauled waste.
11.	Y	N	NA X	Is there any evidence of spills at the hauled waste receiving facility? If yes, explain:
12.	Y	N X	NA	Does the facility have any storm drains?
	Y	N X	NA	If yes, are any chemicals and/or wastes stored where they could spill into storm drains?
	Y	N X	NA	Is there any dry weather flow in the storm drain? If yes, explain:
13.	Y X	N	NA	Does the facility have any floor drains? If yes, where are they and where do they discharge? Influent pump station Are any chemicals/oils/wastes stored in the vicinity of the floor drain? No

IV. FLOW MEASUREMENT				
1. What type of ***influent*** meter is used? Mag Primary element reading: Instantaneous flow reading: Flow from chart:				
2. What type of ***effluent*** meter is used? Mag Primary element reading: Instantaneous flow reading: Flow from chart:				
3.	Y	N X	NA	Are influent (if applicable) and effluent flow measuring device(s) calibrated (or verified for magnetic flow meters) at the frequency specified by the manufacturer or at least once per year, whichever is more frequent? Are the results within 10 percent accuracy? If no, explain: This needs to be done and documented.
4.	Y X	N	NA	Are all effluent flow measuring devices clean and free of debris and deposits? If no, explain:
5.	Y	N	NA X	Are the sides of the flume(s) throat vertical and parallel? If no, explain:

IV. FLOW MEASUREMENT				
7.	Y	N	NA X	Is the effluent weir level? If no, explain:
8.	Y	N X	NA	Is there any leakage around any of the flow measuring devices? If yes, explain:
Comments on flow measurement: Inflent and effluent mag meters require regular calibration, which has not been occurring nor documented.				

V. SELF MONITORING				
1.	Y X	N	NA	Are the influent and effluent samples collected at locations specified in the permit? If no, explain:
2.	Y X	N	NA	Are the correct effluent sample types (grab or composite) taken? If no, explain:
Composite Sampling				
3.	Y X	N	NA	Are composite samples flow-proportioned? If no, explain:
4.	Y X	N	NA	Are composite samples kept cool at ≤6°C during the compositing period? If no, explain:
5.	Y	N	NA X	If ice or gel packs are used, is the temperature of the final sample recorded? If no, explain:

V. SELF MONITORING				
Grab Sampling				
6.	Y X	N	NA	Are all grab samples cooled with ice, gel packs or refrigerated to <6°C from the time of collection until analysis? If no, explain:
7.	Y X	N	NA	If ice or gel packs are used, is the temperature of the final sample recorded? If no, explain:
Refrigerator Storage				
8.	Y X	N	NA	Is refrigerator used for storing composite and/or grab samples prior to analysis? If no, explain:
9.	Y X	N	NA	Is there a thermometer in the refrigerator? If no, explain:
10.	Y X	N	NA	Is the refrigerator temperature recorded routinely? If no, explain:
11.	Y X	N	NA	Are all samples which require preservation properly preserved? If no, explain:
12.	Y X	N	NA	Are the correct sample containers being used? If no, explain:
13.	Y X	N	NA	Is all the sampling equipment and glassware cleaned before being used? If no, explain:

V. SELF MONITORING

Laboratory Analysis

14. List all permit-required analyses done in-house (include all influent, effluent, sludge, biosolids, and recycled water testing requirements): Influent and effluent: pH, TSS, CBOD, E. coli, Ammonia, effluent UV transmittance Biosolids: Total solids, volatile solids

15. List all permit-required analyses done by outside laboratory and name of laboratory (include all influent, effluent, sludge, biosolids, and recycled water testing requirements): Influent and effluent: nitrates, phosphorous Biosolids: fecal bacteria, metals Current Lab: Analytical Labs in Eugene

16.	Y	N X	NA	Does the facility have a written laboratory QA/QC manual? If no or NA, explain: Not required by permit, SOPs are written down.
17.	Y	N X	NA	Does the laboratory QA/QC manual include all the following? ☐ Organization and Responsibilities ☐ Sample Control and Documentation ☐ SOP Procedures for Analytical Methods ☐ Training Requirements ☐ Equipment Maintenance and Calibration Procedures ☐ Calibration Procedure and Detection Limits ☐ Corrective Action Procedures ☐ Quality Control and Calculations ☐ Performance Audits ☐ Evaluating Data for Precision and Accuracy ☐ Reporting and Record Keeping If no, explain: QA/QC manual does not exist.
18.	Y	N	NA X	Is the laboratory QA/QC manual being used by facility personnel? If no, explain:
19.	Y	N X	NA	Are the correct analytical testing procedures used and holding times met? If no, explain: Colitag is used for E. coli testing. Howevewr Colitag is not approved for wastewater by EPA. TSS, CBOD and ammonia use correct methods.
20.	Y X	N	NA	Is bacteria monitoring required?
	Y X	N	NA	If yes, is bacteria monitoring equipment sterilized?

V. SELF MONITORING				
	Y	N	NA X	If Colilert is used for bacterial analysis, is Quanti-Tray/2000 used?
	Y	N	NA X	If Quanti-Tray/2000 is not used, are samples diluted at least 10:1?
21.	Y X	N	NA	Are laboratory method detection limits for all parameters tested less than the permit limits? If no, explain:
22.	Y	N X	NA	Is the permittee conducting quality control standards, sample duplicates, spikes and blanks as per the QA manual? (e.g., are TSS duplicates run?) If no, explain: QA/QC manual needs to be created and followed for all testing methodologies in use. TSS: no duplicates run, no second drying, not running blanks. CBOD: Not doing 3 dilutions, runing a duplicate instead of two different dilutions. Ammonia: no standards are in use, using distilled water as standard.
23.	Y	N	NA X	Are corrective actions made when QC criteria are not met? Examples include: relative percent difference of TSS duplicates is >20%, BOD GGA > 198 ± 30.5, BOD blank > 0.20 mg/L? If no, explain:
24.	Y	N X	NA	Does the laboratory have all the equipment necessary to do the in-house analyses? If no, explain: New equipment for an approved E. coli method needs to be purchased.
25.	Y X	N	NA	Is all the laboratory equipment installed and maintained properly (e.g., scale on a stable table?) If no, explain:
26.	Y	N X	NA	Is the permittee calibrating and maintaining all laboratory instruments and equipment on the periodic basis specified in the QA Manual? (Annual calibrations for thermometers and balances are required; annual calibrations for all other laboratory instruments are recommended but are not required.) If no, explain:
27.	Y	N X	NA	Are the thermometers calibrated annually using a NIST-certified thermometer or does the facility purchase new NIST-certified thermometers yearly? If no, explain: Thermometers are calibrated by an outside company. Need to purchase their own NIST-certified thermometer.

V. SELF MONITORING				
28.	Y X	N	NA	Are all reagents, including pH buffers and standards, properly stored? Are expiration dates displayed and not expired? If no, explain:
29.	Y X	N	NA	Is proper laboratory grade laboratory pure water available for specific analyses? If no, explain:
30.	Y X	N	NA	Are laboratory safety devices (e.g., eyewash and shower, fume hood, proper labeling and storage, pipette suction bulbs) available? (*Recommendation only*) If no, explain:
31.	Y X	N	NA	Does the permittee cross-check its calculations? (*Recommendation only*; however, no cross-checking may result in misreporting which is a violation of the permit) If not, explain:
32.	Y X	N	NA	Does the permittee use the correct lab formulae to calculate final results? If no, explain:
33.	Y X	N	NA	If the permittee conducts BOD, Carbonaceous BOD, or Nitrogenous BOD analysis in-house, do the bench sheets show use of proper acceptance criteria (>2 mg/L DO depletion and >1 mg/L DO remaining). If no, explain:

VI. PERMIT, RECORDS, AND REPORTS				
1.	Y X	N	NA	Is a copy of the current permit onsite? If no, explain:
2.	Y X	N	NA	If the permit is expired or due to expire within 180 days, has a reapplication been submitted? If no, explain: Current NPDES permit was issued on 5/29/2007 and is expired. Timely reapplication was received by DEQ in 2011.

VI. PERMIT, RECORDS, AND REPORTS				
3.	Y X	N	NA	Are the records and reports maintained by the permittee for at least 3 years? If no, explain:
4.	Y	N	NA X	If the permittee monitors any parameter with a permit limit more frequently than required by its permit, using approved test methods, are these additional results included in its DMR calculations? If no, explain:
5.	Y X	N	NA	Check a random DMR against analytical results reported on the permittee's bench sheets. Are they consistent? If no, explain:

VII. OPERATIONS AND MAINTENANCE				
1.	Y X	N		Does the permittee have a written O&M manual? If no, explain:
2.	Y X	N	NA	Does the wastewater treatment facility have an alarm system for all essential equipment? A. Does the facility check its alarm systems? Yes B. How often are alarms checked? Yes C. When were the alarm systems last checked? 2021 D. Are alarms sent to qualified personnel who can respond immediately? Yes
Routine and Preventative Maintenance				
3.	Y X	N	NA	Are routine and preventive maintenance (PM) scheduled performed and recorded? If no, explain: Type of PM tracking system: ☐ electronic Xpaper ☐ other: If paper, how are records kept? Logbook? Other? Describe below: logbook
4.	Y X	N	NA	Check a random equipment unit against manufacturer recommendations. Has it been maintained adequately? If no, explain:

VII. OPERATIONS AND MAINTENANCE				
5.	Y X	N	NA	Does the permittee maintain written procedures for responding to emergencies such as power failures, floods, fires, and other natural disasters? If no, explain:
6.	Y X	N	NA	Does the permittee maintain a written list of contacts for emergencies? If no, explain;
7.	Y	N X	NA	Does the permittee maintain an inventory of spare parts, either at the facility or close by, sufficient to keep all of its treatment units operational? If no, explain: This needs to be developed.
8.	Y	N X	NA	Does the facility have standby power for all treatment units? If no, explain: Aeration basin blower motors are not connected to standby power.
9.	Y X	N	NA	Is the standby power regularly exercised under load? If no, explain: Plant experiences greater than 5 power outages annually. Power under load conducted annually, but not recorded – need to start recording.

VIII. EMERGENCY RESPONSE AND SANITARY SEWER OVERFLOWS				
1.	Y	N X	NA	Do they have a written Emergency Response and Public Notification Plan? Does it contain the following: ☐ Method for citizens to report SSOs. ☐ Steps taken to contain and stop a SSO. ☐ Public Notification Procedures, including contacts for public water supplies, public health officials, location of signage, standard media release. ☐ Description of monitoring procedures to assess bacteria levels in affected surface water. ☐ Description of when signage may be removed. ☐ Reporting to OERS and DEQ. ☐ Follow up actions to reduce, eliminate, and prevent future occurrences. ☐ Process to update plan as knowledge of SSOs increases.
1.	Y	N X	NA	Do they have a written CMOM program? How are maintenance activities tracked? Routine cleaning, call-ins, are all logged and tracked. Is the complete collection system cleaned and inspected on a 5 year rotation? No
2.	Y X	N	NA	Have any SSOs occurred since the last inspection? Are these SSOs reported within 24 hours verbally and followed up with a letter in 5 days? Y If no, explain:

3.	Y	N	NA	List the locations, amounts, surface water impacts, causes, and corrective actions taken for each SSO: 12/12/2019 location: 48187 Highway 58 spill was contained and did not reach surface waters

IX. EFFLUENT AND RECEIVING WATER				
1.	Y	N X	NA	Are there any floating solids, oil sheen, color, or foam **in the effluent**? If yes, explain:
2.	Y	N X	NA	Are there any floating solids, oil sheen, color, foam, odor, or recognizable plume **in the receiving water** due to the discharge? Mark "NA" if outfall observation point is not accessible. If yes, explain:

X. BIOSOLIDS				
1.				Biosolids management in previous 5 years. Check all that apply. x Land applied ☐ Hauled to landfill. Name of hauler and landfill: ☐ Hauled to wastewater treatment facility. Name of hauler and treatment facility: If no land application, continue to section XI.
2.	Y X	N	NA	Does the permittee have a copy of the biosolids management plan and DEQ's approval? If no, explain:
3.				What class(s) of biosolids are approved? ☐ A X B What method(s) does the permittee use to **treat** sewage sludge (check all that apply): x Aerobic Digestion ☐ Other (describe): ☐ Anaerobic Digestion ☐ Alkaline Stabilization ☐ Composting ☐ Drying Beds ☐ Screw press ☐ Centrifuge

X. BIOSOLIDS				
4.				What method(s) does the permittee use to meet **pathogen reduction** requirements (check all that apply): XMonitoring for fecal coliform density ☐ Other (describe): ☐ Air Drying ☐ Composting X Aerobic digestion ☐ Anaerobic Digestion ☐ Lime Stabilization
5.				What method(s) does the permittee use to meet **vector attraction reduction** requirements (check all that apply): X Meet 38% volatile solids reduction ☐ Dry to > 75% solids (no unstabilized solids) ☐ Anaerobic digestion test ☐ Dry to >90% solids with unstabilized solids ☐ Aerobic digestion test ☐ Inject biosolids beneath soil ☐ SOUR for aerobic digested ☐ Incorporate into soil within 6 hrs of application ☐ Aerobic digestion > 40°C and 14 days ☐ Cover with soil or other material each day ☐ Alkali addition
6.	Y X	N	NA	Are all methods used approved in the BMP? If no, explain:
7.	Y X	N	NA	Does the treatment facility have the equipment needed to meet these requirements and is the equipment functional? If no, explain:

XI. RECYCLED WATER				
1.	Y	N X	NA	Does the permittee land apply of recycled water? If no, mark the rest of this section "NA" and continue to the section XII. Recycled supernatant is pumped to treatment plant for processing.
2.	Y	N	NA X	Does the permittee have a copy of the recycled water use plan and DEQ's approval? If no, explain:
3.	Y	N	NA X	What class(s) of water are approved? ☐ A ☐ B ☐ C ☐ D Does the treatment facility have the equipment needed to meet these requirements and is the equipment functional? If no, explain:

XI. RECYCLED WATER				
4.	Y	N	NA X	Is the recycled water monitoring done at the correct location(s)? If no, explain:
Daily Irrigation Log				
5.	Y	N	NA X	Is the log complete? If no, explain:
	Y	N	NA X	Log in bound book?
	Y	N	NA X	Includes run times (start and stop), flow recordings (gallons), and site observations (problems noted and corrected)?
	Y	N	NA X	Staff visit application site and check system on all days of operation?
Recycled Water Site Inspection(s)				
5.	Y	N	NA X	Are appropriate signs posted at the application site? If no, explain:
	Y	N	NA X	Does the irrigation equipment match the description in the recycled water use plan? If no, explain:
	Y	N	NA X	Prolonged ponding on the ground surface? If yes, explain:
	Y	N	NA X	Surface runoff? If yes, explain:
	Y	N	NA X	Nuisance conditions, such as odors, fly or mosquito breeding? If yes, explain:

XI. RECYCLED WATER				
	Y	N	NA X	Potential overloading with nutrients or organics (e.g., greener areas, lush or uneven growth)? If yes, explain:

XII. OTHER NPDES SPECIFIC REPORTS AND REQUIREMENTS	
1.	
2.	
3.	
4.	
5.	

XIII. OTHER OBSERVATIONS AND COMMENTS	
1.	

XIII. OTHER OBSERVATIONS AND COMMENTS	
2.	
3.	
4.	
5.	

XIV. CLOSING CONFERENCE	
Review findings and explain the next steps. *Further consideration may be needed to determine whether findings are violations.*	
1.	Colitag method used for E. coli monitoring may not be approved for wastewater.
2.	Backup power supply testing under load needs to be documented
3.	Influent and effluent mag meter need to be calibrated annually, and that information recorded.

XIV. CLOSING CONFERENCE	
4.	Problems with CBOD, TSS and ammonia QA/QC procedures.
5.	Emergency Response and Public Notification Plan needs to be developed and updated.
6.	City should maintain an inventory of spare parts, either at the facility or close by, sufficient to keep all of its treatment units operational.
7.	Engineering plans for solids/screenings compactor improvements need to be submitted to DEQ plan review for approval, prior to installation.
8.	
9.	
10.	
11.	

XIV. CLOSING CONFERENCE	
12.	
13.	
14.	
15.	