

INSPECTION REPORT

Inspection Entry Date/Time	03/21/2023 9:15 AM (PT)	Announced: No
Inspection Exit Date/Time	03/21/2023 1:20 PM (PT)	Access: Granted
Weather	50°F, Overcast	
Media	Water	
Statute(s)/Program(s)	Clean Water Act, NPDES, WWTP	
Type of Inspection	Compliance Evaluation Inspection	
Permittee Name	City of Orofino	
Facility Name	City of Orofino WWTP	
Facility Physical Address	10200 Highway 12	
City, State, Zip Code	Orofino, Idaho 83544	
County	Clearwater	
Facility GPS Coordinates	46.487385, -116.267884	
Mailing Address	217 First Street, P.O. Box 312	
City, State, Zip Code	Orofino, Idaho 83544	
FRS ID	110010027318	
Permit Number	ID0020150	
SIC	4952 (Sewage Systems)	

Lead Inspector:			
Raymond Andrews	EPA REGION 10	andrews.raymond@epa.gov	(206) 553-4252
Supervisor Review:			
Peter Contreras	EPA REGION 10	contreras.peter@epa.gov	(206) 553-6708

SECTION I – Opening Conference

Site Entry and Inspection Objectives

I arrived at the Orofino WWTP (the “Site” or “Facility”), located at 10200 Highway 12, Orofino, Idaho at 09:15 AM (PT) on 03/21/2023 for an unannounced inspection. I was accompanied on my inspection by Carolyn Whitney, an IDEQ inspector. I presented my inspector credentials to Michael Martin, the City of Orofino’s Water/Wastewater Superintendent. I informed Mr. Martin that I was an inspector from EPA Region 10’s Seattle office and I was at the facility to conduct an inspection to determine compliance with the Clean Water Act (CWA) and the facility’s National Pollutant Discharge Elimination System (NPDES) permit, permit # ID0020150. This report is based on information supplied by Mr. Martin, my direct observations, and records and reports maintained by the facility. In addition, information gathered from a review of EPA, State, and/or public records may be included in this report.

Attendees

Organization	Attendee Name	Title	Present in Opening Conf.	Present in Closing Conf.
EPA Region 10	Raymond Andrews	Lead Inspector	Yes	Yes
IDEQ	Caroline Whitney	IPDES Compliance Officer	Yes	Yes
City of Orofino	Michael Martin	Water/Wastewater Superintendent	Yes	Yes

Facility/Site Information

What is the facility's service population?	The facility has a service population of approximately 2,400 citizens. The facility is located within the tribal boundaries of the Nez Perce Tribal Reservation, but the tribe does not own or operate the facility.
How many employees does the facility have?	The names and certification of the wastewater operators are listed below: Mr. Michael Martin – Class III WW Treatment, Class II Collections Mr. Rick Bird – Class II WW Treatment Mr. Jim Thorp – Class I WW Treatment Mr. Justin Beard – Taking Class I WW Treatment Certification Test in June 2023
When is the facility staffed?	Per Mr. Martin, the facility is staffed 8:00am until 5:00pm, Monday – Friday. On Saturdays and Sundays, the on-call operator spends 4 hours each day checking and maintaining the facility.
What is receiving water?	Clearwater River
How many outfalls does the facility have?	The facility has a single outfall. The outfall is across the river from the facility. The primary collection point is on the north side of river. Wastewater is pumped under the river to the wastewater treatment facility on the east side of the river. After the wastewater has been treated, the effluent is pumped back under the river to the north side for discharge. Effluent samples are collected after final treatment. The actual discharge point is in the middle of the Clearwater River and was submerged at the time of the inspection.
What is the design flow of the facility?	The design flow is 0.88 million gallons per day (MGD).
What is the average daily flow?	The average daily flow for summer is 0.25 MGD. The average daily flow in winter is 0.5 MGD

How often does the facility discharge?	The facility is authorized to discharge year-round.
Explain the facility's treatment process.	Raw wastewater is collected on the east side of the Clearwater River and is pumped under the river through underground piping to the headworks on the west side of the river. The effluent goes through bar screening to remove large solids followed by screening through a fine screen to remove grit and other fine solids. The screenings go to a transfer station for disposal and the effluent goes into a grit clarifier to separate any remaining grit from liquid. The effluent then flows to the oxidation ditch where it remains for approximately 30-days while the wastewater is biologically treated to remove organic material. Once the effluent leaves the oxidation ditch, it goes to the clarifiers. From the clarifier, the liquor (supernate) and the solids go different routes. The clarified effluent travels to the chlorine contact chamber for disinfection. The facility does not dechlorinate the effluent. The supernate is then sent back across the river for discharge. The discharge point is in the approximate middle of the river. From the clarifier, the solids, Returned Activated Sludge (RAS), are sent back to the oxidation ditch. Mr. Martin calculates how much sludge needs to be maintained in the system. Sludge deemed to be excess is sent to the sludge holding tank daily. Sludge from the holding tank is sent to a building for flocculation and dewatering. Once the sludge has been dewatered, it is loaded onto trucks and shipped to farmers for land application. I asked Mr. Martin if the facility had any problems meeting the permit's chlorine limits since the facility does not dechlorinate. He said the facility has not had any problems meeting their limits. A review of data submitted to ICIS supports Mr. Martin's statement.
Who conducts the sampling?	Mr. Martin draws the influent and effluent samples.
Does the facility treat anything other than domestic sewage waste?	The facility has one industrial user. It is an "anodizer" which uses aluminum, caustic soda, and sulphur acid in the anodizing process. The industrial user pre-treats its effluent by neutralizing the chemicals prior to sending the waste stream to the wastewater treatment facility. Mr. Martin said the addition of the industrial waste stream does not seem to have a negative effect on the wastewater treatment plant's operations.
Does the facility conduct its own sampling?	The facility conducts its own sampling. The facility monitors chlorine, temperature, pH, BOD, TSS, ammonia, E. coli, and flow and analyzes all parameters at its in-house lab.
Is the facility sampling more than required?	The facility samples more than required and all extra samples are included in calculations for DMRs.
How does the facility analyze pH?	The facility analyzes pH using a pH meter and probe. The meter is calibrated weekly by staff and once a year an outside contractor comes in to calibrate all equipment.
Does the facility accept waste from septage haulers?	The facility accepts waste from septage haulers. Mr. Martin said there have been no problems maintaining the facility as a result of accepting the additional waste. The septage haulers are required to pre-treat the waste they deliver prior to discharging it at the treatment facility and they are only allowed to discharge 3,000 gallons of liquor per day.
Are any upgrades planned at the facility?	The facility is planning to upgrade to UV disinfection in Summer 2023.

SECTION II – Observations

Location: Facility Laboratory	
Observation #: RA1-OB-001	Date: 03/21/2023
In the facility's lab, I observed the pH 10.0 calibration buffer solution was expired.	

SECTION III – Records Review

Records may not be in sequential order.

Record: Other - Quality Assurance (QA) Plan		AOC: Yes
Ref #: RA1-RR-001	Reviewed By: Raymond Andrews	Reviewed Date: 03/21/2023
The Quality Assurance (QA) Plan was not signed or dated, was not in the format specified in the reference documents cited in the permit, did not show the qualifications and training of personnel and did not contain details on the number of samples to be collected, analytical detection and quantitation limits for each target compound, and the type and number of quality assurance field samples to be collected. The QA Plan map had a facility diagram with sampling points marked but does not contain a map.		

Record: Other - EPA's Integrated Compliance Information System (ICIS) Database		AOC: Yes
Ref #: RA1-RR-002	Reviewed By: Raymond Andrews	Reviewed Date: 03/21/2023
Upon review of data in EPA's Integrated Compliance Information System (ICIS) database, I found the facility had a total of 52 effluent exceedances between 5/1/2018 and 4/30/2023.		

SECTION IV – Areas of Concern

Areas of Concern may not be in sequential order.

The presentation of Areas of Concern does not constitute a formal compliance determination or violation.

AOC Reference #: RA1-RR-001	Records Review: Other - Quality Assurance Plan
Regulation and/or Permit Requirement	
Permit Part II.B.3.c. , “At a minimum, the QAP must include...Qualification and training of personnel.”	
AOC: The QA Plan did not contain the qualifications and training of personnel.	
AOC Reference #: RA1-RR-001	Records Review: Other - Quality Assurance Plan
Regulation and/or Permit Requirement	
Permit Part II.B.3.b. , “At a minimum, the QAP must include...Map(s) indicating the location of each sampling point.”	
AOC: The QA Plan map had a facility diagram with sampling points marked but does not contain a map.	
AOC Reference #: RA1-RR-001	Records Review: Other - Quality Assurance Plan
Regulation and/or Permit Requirement	
Permit Part II.B.2. , “Throughout all sample collection and analysis activities, the permittee must use the EPA-approved QA/QC and chain-of-custody procedures described in <i>EPA Requirements for Quality Assurance Project Plans</i> (EPA/QA/R-5) and <i>Guidance for Quality Assurance Project Plans</i> (EPA/QA/G-5). The QAP must be prepared in the format that is specified in these documents.”	
AOC: The QA Plan was not in the format specified in the reference documents cited in the permit.	
AOC Reference #: RA1-RR-001	Records Review: Other - Quality Assurance Plan
Regulation and/or Permit Requirement	
Permit Part II.B.3.a. , “At a minimum, the QAP must include...Details on the number of samples...analytical detection and quantitation limits for each target compound...type and number of quality assurance field samples...”	
AOC: The QA Plan did not contain details on the number of samples to be collected, analytical detection and quantitation limits for each target compound, and the type and number of quality assurance field samples to be collected.	
AOC Reference #: RA1-RR-002	Records Review: Other - EPA's ICIS Database
Regulation and/or Permit Requirement	
Permit Part I.B. , “The permittee must limit and monitor discharges from outfall 001 as specified in Table 1. Effluent Limitations and Monitoring Requirements, below. All figures represent maximum effluent limits unless otherwise indicated. The permittee must comply with the effluent limits in the tables at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this permit.	
AOC: I found the facility had a total of 52 effluent exceedances between 5/1/2018 and 4/30/2023. A table of the exceedances is in Appendix II.	

AOC Reference #: RA1-OB-001	Location: Facility Laboratory
Regulation and/or Permit Requirement Permit Part II.B, “The permittee must develop quality assurance plan (QAP) for all monitoring required by this permit.” QA Plan, Part 5.2.2, “pH Meters – All pH meters have an accuracy of at least plus or minus 0.1 pH unit and provide for temperature correction of pH measurements. Calibrations are performed with a minimum of two standardization buffers in the appropriate pH range.”	
AOC: The pH 10.0 calibration buffer solution was expired. 	

SECTION V – Closing Conference

I held a closing conference with Mr. Martin at 01:20 PM (PT) on 03/21/2023. During the conference, I discussed my observations and Areas of Concern I identified during the inspection. Observations and Areas of Concern have not yet been evaluated for a formal compliance determination.

SECTION VI – List of Appendices

- I. Photo Log
- II. Areas of Concern Tables

APPENDIX I: Photo Log

All photos were taken by Lead EPA Inspector, Ray Andrews, during the inspection.

Photos were not manipulated beyond minor cropping for sizing and labels or callouts to draw attention to the subject of the photo.

All photos taken during the inspection are included in the Photo Log; however, only photos that support an Area of Concern are included in the inspection report.

- P1010623 - Expired Calibration Buffer Solution, pH 10.0, photo 1
- P1010624 - Expired Calibration Buffer Solution, pH 10.0, photo 2
- P1010625 – Fine Grit Screen
- P1010626 – Influent Sampling Point, near fine grit screen
- P1010627 – Grit Clarifier
- P1010628 – Oxidation Ditch Paddlewheel
- P1010629 – Oxidation Ditch
- P1010630 – Clarifier, single
- P1010631 – Clarifiers, both
- P1010632 – Sludge Holding Tank
- P1010633 – Chlorine Contact Chamber, photo 1
- P1010634 – Chlorine Contact Chamber, photo 2
- P1010635 – Effluent Sampling Point at Chlorine Contact Chamber
- P1010636 – Auto-sampler Control Board

APPENDIX II: Areas of Concern Tables

Effluent Exceedances

Month	Parameter	DMR Value	Permit Limit	Unit	Limit Type	# Violations
Jan 2019	TSS	104	45	mg/L	Wkly Avg	7
Jan 2019	TSS	569	330	lb/d	Wkly Avg	7
Apr 2019	Chlorine	4.35	3.6	lb/d	Mo Avg	30
Apr 2019	Chlorine	7.78	5.5	lb/d	Wkly Avg	7
Mar 2021	<i>E. coli</i>	727	406	#/100mL	Inst Max	1