

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 8			
DRINKING WATER ENFORCEMENT INSPECTION (8ENF-W-SD)			
Section A: Facility Data			
Public Water System (PWS) Name: Crow Agency		Location: Crow Reservation, MT	System Type: ☒ Community ☐ Non-Community ☐ Non-Transient Non-Community
PWS Identification (ID) #: 083090011			
Unannounced Inspection? ☐ Y ☒ N	Population Served: 1300	Water Source: ☐ Ground Water ☒ Surface Water (SW) ☐ Ground Water Under Direct Influence SW	Other System Data (e.g., other descriptive information): N/A
Name(s) and Email(s) of Owner(s): Frank White Clay, Chairman Name(s) of on-site representative(s) and title(s): Chris Dillon, Crow Public Utility Director Darrell Brightwings, Operator			
Section B: Background Information			
Inspection Date: January 6-8, 2025 Lead EPA Inspector: Rachel Brookins, Steven Latino Additional EPA Inspector(s): N/A Additional EPA Representatives Present: Kenley Stone, Water Division			
Open Violations/Date(s): The water system does not currently have any open violations.			

Section C: Inspection Purpose

Purpose: Onsite visit was performed to evaluate the capabilities of the Supervisory Control and Data Acquisition System (SCADA).

Section D: Areas Evaluated During Inspection (check only those evaluated)

Enforcement Action Compliance		Sampling		Ownership Verification		Maintenance Records	
Facility Tour	✓	Compliance w/ Plan		Photos Attached			

Section E: Preliminary Findings

During the inspection, the following was assessed regarding the SCADA system:

- Alarms:
 - Low Clearwell Alarm – the SCADA system is programmed to turn off high service pumps when the clearwell falls to six feet. The high service pumps will turn back on when the clearwell reaches seven and a half feet.
 - Low Chlorine Alarm – the SCADA system will alert operators when the chlorine residual leaving the water treatment plant falls below 0.26 milligrams per liter (mg/L) and will automatically shut off the plant if residual falls below 0.20 mg/L.
 - High Turbidity Alarm – the SCADA system does not alert operators if turbidity reaches a specific threshold; however, it will prevent water from entering the clearwell if the turbidity is over 0.26 Nephelometric turbidity unit (NTU).
 - Filter Performance Alarm – the SCADA system will alert operators if filter head loss reaches a certain threshold. The inspectors were not able to determine what this threshold is.
- Backwash Automation:
 - The SCADA is programmed to send the filter into filter-to-waste when turbidity reaches 0.26 NTU.
 - The filter-to-waste is programmed to run for three, 20-minute cycles before allowing the filter to return to service. There is not automation that would return the filter to service earlier if the filter effluent turbidity fell to a low enough threshold.
- Turbidity Monitoring:
 - Raw water turbidity is being continuously monitored and recorded. The online turbidimeter can read up to 800 NTU.
 - Settled water turbidity is being continuously monitored. The plant operations staff stated that the clarification process reduces the raw water turbidity by around 75% on average prior to the water entering the filter.
 - The SCADA system is not programmed to alarm the operators if settled water turbidity reaches a certain high threshold.
- Reporting and Recording:
 - During the time of the inspection, the online chlorine residual analyzer was not functioning properly after a power outage at the end of October

2024. Plant operations staff were collecting two grab samples per day and reading and recording results via a handheld pocket colorimeter unit.

- Plant operations staff are not currently tracking if the high service pumps are on or off when recording chlorine residuals. The EPA inspection team advised the operations staff to track this information.
- Turbidity readings are being recorded and stored on the SCADA system every 11 seconds. Plant operations staff can access at least five years of turbidity data.
- Storage Tank and System Pressure Tracking:
 - The System lost a cable transducer in a 2023 ice storm. This was what had previously allowed them to accurately track tank levels.
 - Part of the SCADA upgrades (scheduled to be completed by October 2025) will include greater control over storage tank levels. SCADA upgrades will track tank levels and control pump shutoff when tank levels reach a high threshold.

Name(s) and signature(s) of inspectors:

Form completed by: Rachel Brookins Title: Inspector Date: January 17, 2025

Admin review: _____ Date: _____

Technical review: Steven Latino Date: January 22, 2025

Lead Inspector Electronic Signature: _____