



REGION 9

SAN FRANCISCO, CA 94105

June 28, 2024

Sent via Email only

Jennifer Hodges
President, Havasu Water Company, Inc.
P.O. Box 1690
Havasu Lake, CA 92363
Email: havasuwater@outlook.com

Dear Jennifer Hodges:

Enclosed is a copy of the sanitary survey report for the Havasu Water Company (HWC) water system. Shelley Nolan, of Rural and Tribal Environmental Solutions (RATES), conducted this survey on May 8, 2024, under contract with EPA. One of the requirements of the Safe Drinking Water Act (SDWA) is a periodic sanitary survey of the public water system to assess the ability of the system to provide safe and clean drinking water for the populations served. In general, a sanitary survey is required not less than once every 3-5 years, however, the last survey conducted at HWC occurred in 2017.

During the sanitary survey conducted on the HWC water system on May 8, 2024, the inspector found fourteen deficiencies which are of significant health risk to the system and the people served by the system. These deficiencies have been deemed to be significant deficiencies and are of the greatest health threat. Under the SDWA's Long-term 2 Enhanced Surface Water Treatment Rule (LT2), significant deficiencies are defined to include defects in design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage or distribution system that EPA determines to be causing, or have potential for causing, the introduction of contamination into the water delivered to consumers. See 40 C.F.R. § 141.723(b).

Two significant deficiencies of the fourteen were originally discovered during the December 15, 2023, inspection and remained unresolved at the time of the survey. The deficiency regarding polymer containment was subsequently corrected on June 17, 2024. However, the lack of an on-site certified operator remains unresolved and must be corrected by July 1, 2024. Two other significant deficiencies found in the survey were identified earlier in a letter sent to HWC on May 21, 2024, and are accordingly due for correction or an EPA-approved Corrective Action Plan by July 18, 2024.

The remaining significant deficiencies, summarized in the enclosure entitled “Required Corrections,” must be corrected within a specified time frame, which is detailed below. The purpose of this letter is to initiate the consultation period during which you, the owner, must create a plan to correct these significant deficiencies. This plan must be approved by EPA before it can be implemented.

The specific actions you take to address the significant deficiencies must be approved by EPA in advance. Recommended solutions to the deficiencies have been provided, but if there are other options that you believe would correct the deficiencies, you may consult with EPA and seek approval.

In addition to these significant deficiencies, Table 2 of the report narrative outlines other water system deficiencies as well as recommended improvements to ensure the delivery of safe water. Although EPA did not identify these as significant deficiencies, we highly recommend that you address all system deficiencies described in the report. Higher priority health risks represent higher potential for the introduction of contamination into the water delivered to customers and require attention as soon as possible.

Pursuant to 40 C.F.R. § 14.1.723(c), you must respond in writing no later than 45 days after receipt of the report, indicating how and on what schedule the system will address the ten new significant deficiencies. This Corrective Action Plan must be approved by EPA and contain anticipated dates for the correction of each significant deficiency. If we do not receive a comprehensive plan to correct these additional significant deficiencies by August 12, 2024, additional steps may be taken by EPA, which could include referring this matter to EPA’s Office of Enforcement and Compliance Assurance.

Please call Annie Wan at (415) 972-3845 or email at wan.annie@epa.gov to discuss your plans for remediating the above-described deficiencies. Thank you for your attention to these important issues to ensure the safety of the water served to your customers.

Sincerely,
/s/ by Emmanuelle Rapicavoli on 6.28.24

For: Emmanuelle Rapicavoli
Manager, Tribal Drinking Water Section

Enclosures

1. Required Corrections
2. Havasu Water Company Sanitary Survey 5-8-24

cc: Sean Chapin, Site Operations Manager

Required Corrections

0600202- Havasu Water Company

List of Significant Deficiencies identified during the Sanitary Survey conducted on 5/8/2024

Deficiency Title

Due Date

The Cationic Polymer Storage Is Not Adequate

6/27/2024

Deficiency Category: **Treatment**

Facilities **TP001**

Issue Description

The cationic polymer is pumped from a 5-gallon open bucket placed on a stool by the door and can be easily tipped over. This was also identified during the Dec 15th, 2023, inspection by ECAD. It was partially corrected in a photo sent in on Jun 11th, 2024, which depicted polymer containers with exposed openings for injection lines and no secondary containment. While it was corrected in a photo sent on Jun 17th, 2023 which showed the openings were plugged, a recommendation was made for acquiring better secondary containment as the tray in the photo was insufficient for capturing all the polymer if the containers were to completely spill.

Recommended Corrective Action

Liquid chemicals should be in a closed container that is safe from upending, with spill containment under the container.

Final Corrective Action Taken

Picture was sent showing the opening for the injection lines were plugged. However, secondary containment appeared to be a baking tray and was inadequate so system was advised to obtain better containment.

Corrective Action Date

6/17/2024

Interim Corrective Action Taken

Picture were sent with appropriate polymer containers, however an opening remained where the injection lines entered and there was no secondary containment.

Corrective Action Date

6/11/2024

Deficiency Title

Due Date

The Treatment Plant Is Not Being Operated By A Certified Operator.

7/1/2024

Deficiency Category: **Operator Compliance**

Facilities **DS001**

Issue Description

The surface water treatment plant is not being operated by an operator that works onsite and holds the required treatment level 2 and distribution level 1 licenses. This deficiency was also identified during the Dec 15th, 2023 inspection by ECAD.

Recommended Corrective Action

EPA Region 9 requires all community water systems and non-transient non-community water systems to have a certified operator at the appropriate level. The water system management needs to employ an on-site operator that is certified at a Level 2 Treatment and a Level 1 Distribution or higher to comply with EPA Region 9 Requirements.

Corrective Action Taken

Proof of Corrective Action not yet submitted

Corrective Action Date

Corrective Action Date pending

Required Corrections

0600202- Havasu Water Company

List of Significant Deficiencies identified during the Sanitary Survey conducted on 5/8/2024

Deficiency Title

Due Date

Lack of an Approved Coliform Sampling Plan

7/18/2024

Deficiency Category: **Distribution**

Facilities **DS001**

Issue Description

EPA observed the location of the only current routine coliform sampling site at the Havasu Estates (“H.E.S”) Intake Valve, which was very close to the treatment plant. As noted after the power outage, HWC should have multiple routine coliform sampling sites identified and cycle through them monthly to ensure its required monitoring is representative of the water quality in its entire distribution system. In addition, HWC needs to establish upstream and downstream sampling locations in the event of a positive routine total coliform sample. Those repeat sampling locations are required to properly establish the presence or absence of E. Coli. Currently, HWC does not have a site sampling plan that is approved by EPA.

Recommended Corrective Action

HWC must propose a coliform sampling plan with a minimum of three (3) routine coliform sampling sites that are spread throughout the distribution system. Each sampling site must be accompanied by a set of repeat sampling locations, comprising of one upstream and one downstream location, each no more than five (5) service connections away from the original site.

Corrective Action Taken

Proof of Corrective Action not yet submitted

Corrective Action Date

Corrective Action Date pending

Deficiency Title

Due Date

Lack of Emergency Backup Power On-site

7/18/2024

Deficiency Category: **Management and Operation**

Facilities **SW001, TP001**

Issue Description

HWC does not have a source of immediate backup power in case of emergencies to ensure water delivery to consumers. While a Quick Connect panel for the treatment plant was found during the survey, there is no generator on-site to power the treatment plant. Even with the Quick Connect panel in place, no backup connection was found for the pumping station, which means the operator would not be able to pump water to the pressure tank. The system would then be reliant on the water in the pressure tank to meet demand until power was restored. There is inadequate storage in the pressure tank to prevent depressurization of the distribution system. Depressurization could lead to backsiphonage and the introduction of contamination into the distribution system.

Recommended Corrective Action

HWC must acquire as many on-site power generators as needed for the system to maintain normal water pressure and water quality to provide uninterrupted service during a power outage. Generators must be checked monthly to ensure they are in working order.

Corrective Action Taken

Proof of Corrective Action not yet submitted

Corrective Action Date

Corrective Action Date pending

Deficiency Title

Due Date

Lack of an Emergency Response Plan

8/12/2024

Deficiency Category: **Management and Operation**

Facilities

Issue Description

The system did not have an emergency response plan (ERP) at the time of the survey.

Recommended Corrective Action

An emergency response plan for the system should be created, using the template provided by EPA. This plan should consider a wide variety of situations that could occur, and provide a breakdown of steps to address each scenario. The plan must include response steps for a power outage, loss of pressure, line break, positive E.Coli sample, and chlorine gas leak. The process for conducting public notification (PN) must also be included. This plan should be submitted to EPA for review and approval and should be updated over time.

Corrective Action Taken

Proof of Corrective Action not yet submitted

Corrective Action Date

Corrective Action Date pending

If no due date shown, please consult regarding these proposed corrective actions and negotiate reasonable due dates and specific actions.

Required Corrections

0600202- Havasu Water Company

List of Significant Deficiencies identified during the Sanitary Survey conducted on 5/8/2024

Deficiency Title

Due Date

Lack Of Flow Meters for the Raw Water inlet, Finished Water Outlet and Backwash Water.

8/12/2024

Deficiency Category: **Treatment**

Facilities **TP001**

Issue Description

There are no flow meters on the raw water inlet from Lake Havasu, the treated water outlet, or the backwash water flow to determine the actual flow rates in the treatment plant filters. The reported flow on the MORs does not meet the minimum design filtration flow rates for the treatment process. It is unclear if the current backwash flow rates meet the design rate to adequately backwash the filters and prevent excessive media loss.

Recommended Corrective Action

Provide documentation to demonstrate how the treatment plant flow rate is currently calculated without flow meters. Provide documentation that the reported flow rate meets minimum design filtration rates for Stage 1 filters. Flow meters must be installed, and read, on the raw water inlet, treated water outlet, and backwash flow. Once installed, the water system must use the actual flow rates for the treatment plant on its MORs.

Corrective Action Taken

Proof of Corrective Action not yet submitted

Corrective Action Date

Corrective Action Date pending

Deficiency Title

Due Date

Lack Of A Cleaning And Inspection Schedule for Storage Tanks.

8/12/2024

Deficiency Category: **Finished Water Storage**

Facilities **ST001**

Issue Description

The storage tank has not been cleaned or inspected in the recommended 3 - 5 years. It is unknown when it was last inspected and cleaned.

Recommended Corrective Action

Tanks should be cleaned and inspected by a certified tank inspection company, with a set of coliform samples taken afterwards. EPA must be provided with a copy of the inspection results and labeled photographs. EPA will review the inspection report and may require additional corrective actions.

Corrective Action Taken

Proof of Corrective Action not yet submitted

Corrective Action Date

Corrective Action Date pending

Deficiency Title

Due Date

Source Of Contaminated Water In The Immediate Area Of The Booster Pumps That Pump Water To The Hydropneumatic Storage Tank

8/12/2024

Deficiency Category: **Pumps, Pump Facilities and Controls**

Facilities **DS001**

Issue Description

There is standing water around the booster pumps in the vicinity of the active storage tank (ST001). In the event of low pressure, this contaminated water could enter piping through holes in the underground piping and be sent to the hydropneumatic tank (HP001). The water may be a result of the pump seals leaking due to pumping against a high head of pressure and blowing out the seals on the pump. There are no identifiable ratings on the pumps. The storage capacity, that the pumps are boosting water to, must be at least 10 times the capacity of the gpm rating on the pump. The pumps are pumping against a 60 psi storage and an additional 8 feet of elevation head.

Recommended Corrective Action

Identify the source of the water and determine if the piping has been compromised from the storage tank to the booster pumps. If the water is from leaking pump seals and piping determine if the head pressure is too high in the hydropneumatic tank.

Corrective Action Taken

Proof of Corrective Action not yet submitted

Corrective Action Date

Corrective Action Date pending

If no due date shown, please consult regarding these proposed corrective actions and negotiate reasonable due dates and specific actions.

Required Corrections

0600202- Havasu Water Company

List of Significant Deficiencies identified during the Sanitary Survey conducted on 5/8/2024

Deficiency Title

Due Date

The Pressure Tank Is at Risk for Failure

8/12/2024

Deficiency Category: **Pumps, Pump Facilities and Controls**

Facilities **HP001**

Issue Description

The hydropneumatic pressure tank may be close to 50 years old and the inlet from the booster pumps is severely corroded on the outside. During the survey, the water system did not have inspection records available and indicated that it may have never been inspected. The surveyors and water system personnel were not able to locate a pressure relief valve (PRV) and personnel indicated that the operations manager uses a compressor to manually put air into the tank. The tank may be vulnerable to catastrophic failure.

Recommended Corrective Action

The tank should be inspected by a tank inspection professional. The water system must provide documentation of the tank's age and a photo of the pressure relief valve (PRV), if one can be located. If the tank is found to not have a PRV, a properly sized pressure relief valve should be installed on the pumping facility discharge header to protect the distribution system and the pressure tanks if pressure develops that is greater than the maximum pressure rating of the water system.

Corrective Action Taken

Proof of Corrective Action not yet submitted

Corrective Action Date

Corrective Action Date pending

Deficiency Title

Due Date

Critically Low Storage Tank Level.

8/12/2024

Deficiency Category: **Management and Operation**

Facilities **ST001**

Issue Description

The water level for the storage tank was observed to be at a critically low level during the sanitary survey inspection. The system must maintain a minimum tank level of 10 feet to ensure that the required detention time is met for contact time (CT) log inactivation for Giardia and viruses. Maintaining sufficient water storage is also necessary to avoid a critical situation such as no fire flow, potential low distribution pressure, and tank sediment being sucked into the distribution system from the bottom of the tank.

Recommended Corrective Action

Develop operational procedures and parameters that clearly define the operations of the treatment plant, backwash parameters, and tank levels.

Corrective Action Taken

Proof of Corrective Action not yet submitted

Corrective Action Date

Corrective Action Date pending

Deficiency Title

Due Date

The Vent Shroud Is Not Adequate

8/12/2024

Deficiency Category: **Finished Water Storage**

Facilities **ST001**

Issue Description

The vent screen on the active storage tank is partially exposed, allowing dust and particles to enter the storage tank.

Recommended Corrective Action

The storage tank vent should be fitted with a watertight cover that extends down below the screen to minimize the entry of rain, snow, dust and other windblown contaminants into the tank.

Corrective Action Taken

Proof of Corrective Action not yet submitted

Corrective Action Date

Corrective Action Date pending

Required Corrections

0600202- Havasu Water Company

List of Significant Deficiencies identified during the Sanitary Survey conducted on 5/8/2024

Deficiency Title

Due Date

Lack of A Backup Booster Pump That Is Operational.

8/12/2024

Deficiency Category: **Pumps, Pump Facilities and Controls**

Facilities

Issue Description

There is only one pump that is operational to boost water from the storage tank to the hydropneumatic pressure tank. If it breaks, water service will be interrupted by the loss of pressure.

Recommended Corrective Action

Repair or replace the second pump and/or motor to provide a continuous supply of water to the distribution system.

Corrective Action Taken

Proof of Corrective Action not yet submitted

Corrective Action Date

Corrective Action Date pending

Deficiency Title

Due Date

Lack Of A Backup Raw Water Pump That Is Operational

8/12/2024

Deficiency Category: **Pumps, Pump Facilities and Controls**

Facilities **SW001**

Issue Description

There is no backup pump for the surface water source supply to the treatment plant. If the current pump fails, the water system will be unable to pump water to the treatment plant.

Recommended Corrective Action

Repair or replace a second raw water pump and/or motor to provide a continuous supply of raw water to the treatment plant.

Corrective Action Taken

Proof of Corrective Action not yet submitted

Corrective Action Date

Corrective Action Date pending

Deficiency Title

Due Date

Lack Of Procedure For Injecting a Disinfectant To Meet Log Inactivation Requirements

8/12/2024

Deficiency Category: **Treatment**

Facilities **TP001**

Issue Description

The water system's personnel are unfamiliar with its chlorination process. They could not reliably determine if both chlorine injection points are operational. Without this information, the system cannot maintain a consistent and reliable amount of chlorine in their water.

Recommended Corrective Action

The water system must develop a standard operating procedure for its chlorination process. This procedure should describe when and how chlorine is added (e.g., when the plant is producing water, etc.) and should be used in tandem with the treatment process diagram that was developed in response to the previously identified significant deficiency related to the chlorine injection points.

Corrective Action Taken

Proof of Corrective Action not yet submitted

Corrective Action Date

Corrective Action Date pending