



DEPARTMENT OF NATURAL RESOURCES

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November 4, 2016

Mr. Josiah Cox, Owner
Indian Hills Utilities Operating Co. Inc.
c/o Central States Water Resources
500 Northwest Plaza Drive, Suite 500
St. Louis, MO 63074

Finding of Compliance

Dear Mr. Cox:

An Inspection was conducted by the Missouri Department of Natural Resources staff pursuant to Section 640.100.4 of the Missouri Safe Drinking Water statutes on October 26, 2016. The Indian Hills Utilities Operating Co. Inc.'s Public Water System was found to be in compliance based upon the observations made at the time of this inspection.

The Report of Inspection describes the findings and may list important recommendations that should be considered to ensure continued compliance. Your cooperation implementing those recommendations will be appreciated.

If you have questions regarding the enclosed inspection report or would like to schedule a time to meet in person, please contact Ms. Michelle Oglesby at (573) 368-7344 or in writing at the Missouri Department of Natural Resources, Southeast Regional Office, Rolla Satellite Office, 111 Fairgrounds Road (P.O. Box 250), Rolla, MO 65401.

Sincerely,

SOUTHEAST REGIONAL OFFICE


Bradley K. Ledbetter
Chief, Public Drinking Water Unit

BKL/mol

Enclosures: Report of Inspection

c: Mr. Ben Kuenzel, Midwest Water Operations LLC, 1351 Jefferson, Suite 301, Washington,
MO 63090

Mr. Matt Eaton, 201 East Spencer, Cuba, MO 65453
Public Service Commission, P.O. Box 360, Jefferson City, MO 65101-0360
Public Drinking Water Branch (electronically)

Missouri Department of Natural Resources
Southeast Regional Office/Public Drinking Water Program
Report of Inspection
Indian Hills Utilities Operating Co. Inc.
500 Northwest Plaza Drive, Suite 500, St. Louis, MO 63074
Crawford County Missouri
MO6036052
November 4, 2016

Introduction

Pursuant to Section 640.100.4 of the Missouri Safe Drinking Water Statutes, a routine Compliance and Operation Inspection of Indian Hills Utilities Operating Co. Inc.'s public drinking water system was conducted by the Southeast Regional Office on October 26, 2016. This inspection was conducted to determine the facility's compliance with the Missouri Safe Drinking Water Statutes and the Missouri Safe Drinking Water Regulations. This report presents the findings and observations made during the inspection and covers all (8) critical components of a public water system; System Management and Operation, Operator Certification, Monitoring and Reporting, System Source, System Treatment, Pumping Facilities, Finished Water Storage, and Distribution System.

The following people were present at the time of the inspection:

Indian Hills Utilities Operating Co. Inc.
Mr. Josiah Cox, Owner (314) 736-4672
Mr. Ben Kuenzel, Engineer (636) 432-5029
Mr. Matt Eaton, Chief Operator (573) 205-3241
Mr. Joe Cason, Operator (573) 259-43473

Missouri Department of Natural Resources (department)
Ms. Michelle Oglesby, Environmental Specialist III (573) 368-7344

Facility Description and History

The Indian Hills Utilities Operating Co. Inc.'s water system is classified as a community public water system that is in operation throughout the year. This is a primary system which is 100% groundwater. The system is comprised of two (2) wells, two (2) booster pump stations, a 263,000 gallon standpipe and a 53,000 gallon standpipe. The water system is a chlorinated system utilizing 12% sodium hypochlorite or liquid chlorine. The system serves a population of approximately 2,200 individuals with 712 service connections. The water system is unable to calculate average water usage or water loss since Mr. Cox has taken ownership of this public water system, because historical records were not turned over by the previous owner. Since Mr. Cox has taken possession of public water system, his company has been diligently replacing leaking lines and upgrading the entire system. The current upgraded water system is keeping track of water loss (only a couple of months of data at this time). However, there is no historical data to report water loss or usage.

Indian Hills Utilities Operating Co. Inc.'s water system is classified at a DS II level of certification for treatment and distribution. The operator in charge of treatment and distribution is listed as Mr. Matt Eaton, Certification #11846. Mr. Eaton has a DS II certification. Mr. Joe Cason, Certification #2316 is listed as the stand-by or backup operator. Mr. Cason has a DS III and Level C certifications.

The last inspection was conducted on August 20, 2014, with several items noted for correction for the previous owners. Since that time, Mr. Cox has upgraded the major components of this public water system. Well #1 was refurbished with a new drop pipe and pump, booster pump station, chemical injection room and equipment. There are backup pumps for treatment and a continuous chlorine reader for verification of amount of chlorine being injected into the water system. Installation of a generator for Well #1, that automatically turns on if loss of power occurs at this well and a 263,000 gallon standpipe. Previous storage at this well was inadequate for the number individuals on this water system. Well #3 was drilled for usage/back-up and set up like Well #1, along with an additional 53,000 gallon standpipe.

Since Well #2 could not be salvaged, it has been removed from the water system and plugged appropriately. Documentation of all water system ordinances, site plans, maps, sampling, etc. is being kept in one central location and operator is able to access if asked for.

Previous owner was under a Bilateral Compliance Agreement (BCA) for not obtaining a properly certified stand-by operator that was signed on July 17, 2015. This BCA was closed on April 22, 2016, after Mr. Cox provided proof of a certified operator and back-up operator for the water system.

Prior to the inspection, the files and other facility information for Indian Hills Utilities Operating Co. Inc. Public Water System (MO6036052) were reviewed. The inspection was conducted during normal business hours. Prior notification of the inspection was provided to ensure timely access to the site.

Discussion of Inspection and Observations

Upon arrival at the facility, I met with Mr. Josiah Cox, Mr. Ben Kuenzel, Mr. Matt Eaton, Mr. Joe Cason and multiple members of the Public Service Commission. During this time, I introduced myself and conducted a review of all relevant paperwork associated with the water system. Current paperwork and records appeared to be well kept and in order. It was noted that no historical records were given to Mr. Cox from the previous owner. The facility appeared to have a copy of their lead ban and cross connection agreements, emergency operations plan, coliform site plan, distribution map, and had records of all coliform and chemical sample results.

After the records review, I inspected the wells and storage tanks beginning at Well #1 and 263,000 gallon standpipe. Well #1 was drilled in 1963 and is approximately 990 feet deep with 275 feet of 8" casing. The well pumps approximately 220 gpm. The well house, treatment facilities, booster pumps and all controls appeared to be in good working condition. The 263,000 gallon standpipe has a ¼ inch screen with flap valve. The flap valve does not have a gasket and does not fit tight to overflow pipe, creating a gap that insects could get into and potentially contaminate the water storage tank. Well #3 was drilled in 2016 and is approximately 1,050 feet deep with 400 feet of 10" casing. The well pumps approximately 320 gpm. The 53,000 gallon standpipe has a ¼ inch screen with flap valve. The flap valve does not have a gasket and does not fit tight to the overflow pipe, creating a gap that insects could get into and potentially contaminating the water storage tank. Well #2 has been removed from the water system and properly plugged by Flynn Well Drilling. Also, the booster pump station at Well #2 has been removed along with the pressure tanks at Well #1.

Sampling and Monitoring

The appropriate sampling materials were taken on the inspection. The manufacturer's standard methods and sampling procedures for each instrument were followed. The instruments for field monitoring that were utilized on the inspection are the Hach chlorine colorimeter, Missouri State Health Department approved bacteriological sample bottles, and the necessary reagents. All instruments were properly calibrated according to manufacturer's recommendations and all reagents were used prior to the stated expiration date. QA/QC data for all field equipment is maintained at the regional office. The sample was analyzed as coliform absent (**safe**). **The following analytical field data was collected at the time of inspection:**

Analytical Field Data			
Parameter	Sample Location	Results	Units
Bacteria (Total Coliform)	Community Hall #R2	Absent	CFU/100 ml
Chlorine (Free)	Community Hall #R2	0.93	mg/L
Chlorine (Total)	Community Hall #R2	1.15	mg/L
Bacteria (Total Coliform)	Maintenance Shed #15	Absent	CFU/100 ml
Chlorine (Free)	Maintenance Shed #15	1.11	mg/L
Chlorine (Total)	Maintenance Shed #15	1.15	mg/L

Compliance Determination and Required Actions

This facility was found to be in **compliance** with the Missouri Safe Drinking Water Regulations based on observations made at the time of the inspection.

Recommendations

1. An improperly constructed flap valve on the overflow piping allows the entrance of insects into the water storage facilities.

Overflow piping should be protected from the entrance of birds, animals or insects by a tight fitting counterweighted flap valve and/or screen. The current ¼ inch screen eliminates the entrance of birds or animals, but can allow the entrance of insects, because the flap valve is not tight fitting to the overflow piping.

It is strongly recommended that the utility contact a water storage tank maintenance company of your choosing to replace the existing flap valve or provide a gasket so the current flap valve is tight fitting to the overflow piping, to eliminate possible contamination of the water storage facilities.

Additional Comments

I would like to commend you for your efforts and attention to the water system in providing safe potable water for the public to drink. I would also like to thank you, Mr. Ben Kuenzel, Mr. Matt Eaton, and Mr. Joe Cason for their time and assistance during the inspection. If there are any questions concerning this report please feel free to contact me at 573-368-7344.

Signatures

SUBMITTED BY:



Michelle Oglesby
Environmental Specialist III
Southeast Regional Office

REVIEWED BY:



Bradley K. Ledbetter
Chief, Public Drinking Water Unit
Southeast Regional Office

Attachments

- Attachment #1 – Photos 1-17**
Attachment #2 – Map – Page 5



Photo #:001
Date Taken: 10/26/2016
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities Operating Co. Inc.
Description: Well #1



Photo #:002
Date Taken: 10/26/2016
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities Operating Co. Inc.
Description: Well #1 - Piping



Photo #:003
Date Taken: 10/26/2016
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities Operating Co. Inc.
Description: Well #1 – Chlorine Room with chlorine pumps.



Photo #:004
Date Taken: 10/26/2016
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities Operating Co. Inc.
Description: Well #1 – Chlorine Room with chemical storage.



Photo #:005
Date Taken: 10/26/2016
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities Operating Co. Inc.
Description: Well #1 – Continuous chlorine reader.



Photo #:006
Date Taken: 10/26/2016
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities Operating Co. Inc.
Description: Well #1 – Booster Pump Station



Photo #:007
Date Taken: 10/26/2016
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities Operating Co. Inc.
Description: Well #1 – 263,000 gallon standpipe.



Photo #:008
Date Taken: 10/26/2016
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities Operating Co. Inc.
Description: Well #1 – Generator



Photo #:009
Date Taken: 10/26/2016
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities Operating Co. Inc.
Description: Location where Well #2 used to be.



Photo #:010
Date Taken: 10/26/2016
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities Operating Co. Inc.
Description: Location where Well #2 booster pumps station was located.



Photo #:011
Date Taken: 10/26/2016
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities Operating Co. Inc.
Description: Well #3



Photo #:012
Date Taken: 10/26/2016
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities Operating Co. Inc.
Description: Well #3 - Piping



Photo #:013
Date Taken: 10/26/2016
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities Operating Co. Inc.
Description: Well #3 – Chlorine Room with chlorine pumps.



Photo #:014
Date Taken: 10/26/2016
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities Operating Co. Inc.
Description: Well #3 – Chlorine Room with chemical storage.



Photo #:015
Date Taken: 10/26/2016
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities Operating Co. Inc.
Description: Well #3 – Continuous chlorine reader.



Photo #:016
Date Taken: 10/26/2016
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities Operating Co. Inc.
Description: Well #3 – Booster Pump Station.



Photo #:017
Date Taken: 10/26/2016
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities Operating Co. Inc.
Description: Well #3 – 53,000 gallon standpipe.

ATTACHMENT #2 – Map
November 4, 2016
Indian Hills Utilities Operating Co. Inc.

