Crawford County - PDWB
Indian Hills Utilities
PWS ID # MO-6036052

SCHEDULE JC-01

STATE OF MISSOURI

Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

August 25, 2014

CERTIFIED MAIL: 7014 0150 0001 3175 3543
RETURN RECEIPT REQUESTED

Ms. Lois Stanley, Owner
Indian Hills Utilities
2538 Alleghenny
Cuba, MO 65453

Dear Ms. Stanley:

Enclosed is a Compliance and Operation Inspection Report for the community public water system serving Indian Hills Utilities, PWS ID # MO-6036052, Cuba, Crawford County, Missouri. The purpose of the inspection was to determine the public water system's compliance with the Missouri Safe Drinking Water Act and Missouri Public Drinking Water Program regulations. Please direct your attention to the recommendations contained in the enclosed inspection report and provide a written response **within 60 calendar days,** with the exception of Significant Deficiencies, which require a **30 calendar day** response from the date of this certified letter. Your response should be specific in detailing how you intend to correct the problems identified.

Significant Deficiencies were identified during this inspection that requires your immediate attention. The public water system must consult the department's Regional Office **on or before September 24, 2014**, to determine what actions will be taken or have been taken to correct the Significant Deficiencies. Significant deficiencies can be defects in design, operation or maintenance that can cause a failure in the public water system, or have the potential to introduce contamination. Steps must be taken to correct all unsatisfactory features identified in the enclosed inspection report with the designated deadlines. Failure to respond within the designated deadlines stated above is a violation and may lead to enforcement action by the department.

If you have any questions regarding the enclosed inspection report, please feel free to contact Ms. Michelle Oglesby at (573) 368-7344 in the department's Southeast Regional Office's Rolla Satellite Office, 111 Fairgrounds Rd. (P.O. Box 250), Rolla, MO 65401. Thank you for your cooperation to preserve, protect and enhance Missouri's natural, cultural and energy resources.

Sincerely,

SOUTHEAST REGIONAL OFFICE

Jackson L. Bostic
Regional Director

JLB:mol

Enclosure: Compliance and Operation Inspection Report
Photo Attachment
Monthly Chlorine Record Form
How to Select TTHM and HAA Sample Sites

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

Recycled Paper

MISSOURI DEPARTMENT OF NATURAL RESOURCES
COMPLIANCE AND OPERATION INSPECTION REPORT
COMMUNITY PUBLIC WATER SUPPLY
INDIAN HILLS UTILITIES
PWS ID# 6036052
AUGUST 25, 2014

INTRODUCTION:

On August 20, 2014, a representative of the Missouri Department of Natural Resources' (MDNR) Rolla Satellite Office conducted a Compliance and Operation Inspection of Indian Hills Utilities' public drinking water system. The purpose of the inspection was to determine the system's compliance with the Missouri Safe Drinking Water Act and the Missouri Public Drinking Water Program Regulations. This inspection reviewed all eight (8) critical components of a public water system. Requirements and recommendations to correct deficiencies found during this inspection are outlined as follows.

BRIEF SYSTEM DESCRIPTION:

The Indian Hills Utilities' 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 and serves a population of 2,500 individuals. The system is comprised of two (2) wells (Well #2 currently is off-line), a 20,000 gallon ground storage tank, a 5,000 gallon pressure tank and a pressure booster pump station. Treatment consists of sodium hypochlorite (liquid Chlorine) injection at Well #1 just before the 20,000 gallon ground storage tank.

Indian Hills Utilities' water treatment is classified at a DS II level of certification for distribution. The operator in charge of treatment and distribution is listed as Mr. Matthew Eaton. Mr. Eaton has a DS II level certification for distribution.

SIGNIFICANT DEFICIENCIES:

1. The public water system failed to perform sufficient operational monitoring to maintain control of the treatment processes as required by Missouri Public Drinking Water Commission regulation 10 CSR 60-4.080.

   The public water system failed to conduct daily monitoring of chlorine residual levels within the public water system's distribution system. Daily testing of chlorine residuals within the public water system's distribution system insures that chlorine levels are maintained to eliminate contaminants within the water system. Total chlorine residuals cannot drop below 0.2 mg/L at the farthest point within the distribution system and cannot be above 4.0 mg/L before the first service connection of the distribution system. A "Monthly Chlorine Record Form" has been included with this inspection report for you to use.

   Within **30 calendar days** please submit a copy of the public water system's chlorine residuals by the 10th of each following month to the Missouri Department of Natural Resources, Southeast Regional Office, Rolla Satellite Office, PO Box 250 (111 Fairgrounds Rd.), Rolla, MO 65402-0250. After the department evaluates the chlorine residuals for the initial 90 days, you will be notified if your public water system must continue to submit chlorine residuals to the above office.

   The department requires that Indian Hills Utilities begin performing chlorine level residual testing daily and document these levels within the public water system records.

FINDINGS, COMMENTS, AND RECOMMENDATIONS FOR OTHER DEFICIENCIES:

System Management, Operator Certification, Monitoring and Reporting

1. The public water system does not have a stand-by chief operator to operate and maintain the drinking water system in the event that the chief operator is unavailable or incapacitated.

   This is in violation of Missouri Safe Drinking Water Commission Regulation 10 CSR 60-14.010, which establishes certification requirements for public water system operators. This regulation requires community public water systems to develop a contingency plan for a stand-by chief operator to be available at all times. This may be a second employee certified at the chief operator level, a mutual assistance agreement with a neighboring system, or a pre-arrangement with a contract operator. In some situations multiple backup operators may be required. Sample agreements have been included with this inspection report.

   Within **60 calendar days**, the public water system must submit a plan of action, to the Missouri Department of Natural Resources, Southeast Regional Office, Rolla Satellite Office, PO Box 250 (111 Fairgrounds Rd.), Rolla, MO 65402-0250, outlining the public water system's plan to retain services of a stand-by chief operator(s). This plan of action should contain the name(s) of the contracted stand-by chief operator(s), a copy of the work agreement contract and a copy of contracted stand-by chief operator(s) certification certificate; or the name of any individual(s) scheduled dates to attend a certification training course or online course with a planned timeframe for completion to include operator certification testing date(s). For additional information on training courses or operator certification testing dates, please contact the Missouri Department of Natural Resources, Water Protection Program, Operator Certification Section at (800) 361-4827 or (573) 751-1600, P.O. Box 176 (1101 Riverside Dr.), Jefferson City, MO 65102-0176.

   The department requires that Indian Hills Utilities submit a plan of action for obtaining a stand-by chief operator for their public water system within **60 calendar days.**

2. The public water system does not have an up-to-date coliform site sample plan in accordance with Missouri Public Drinking Water Commission regulation 10 CSR 60-4.020(1).

   A public water system must collect total coliform samples according to a written sample siting plan at sites which are representative of the potable water throughout the entire distribution system. Public water systems must identify a minimum of five (5) routine sample locations in different areas of the system. It is recommended that cold water only inside taps be used for sample collection and the well cannot be used for routine sampling points.

   The public water system must enact an appropriate coliform site sample plan and begin rotation of routine samples throughout the distribution system. An example coliform sample siting plan was given to you during this inspection along with a list of sample sites that the department has on record for your public water system. Within **60 calendar days,** the public water system must submit a copy of the coliform site sample plan to the Missouri Department of Natural Resources, Southeast Regional Office, Rolla Satellite Office, P.O. Box 250 (111 Fairgrounds Rd.), Rolla, MO 65402-0250.

The department requires that Indian Hills Utilities submit a coliform site sample plan for their public water system within **60 calendar days**.

3. The public water system has not developed a Disinfection by-product (DBP) monitoring plan in accordance with Missouri Public Drinking Water Commission regulation 10 CSR 60-4.090(3).

   Effective January 1, 2004, all community public water systems that add a chemical disinfectant to the water are required to develop, maintain and make available to the department upon request a plan to monitor DBP. A "How to Select TTHM and HAA Sample Sites" document has been included with this inspection report to guide you on how to select and document your DBP monitoring sites. Within **60 calendar days,** the public water system must submit a copy of the coliform site sample plan to the Missouri Department of Natural Resources, Southeast Regional Office, Rolla Satellite Office, P.O. Box 250 (111 Fairgrounds Rd.), Rolla, MO 65402-0250.

   The department requires that Indian Hills Utilities submit a DBP monitoring plan for their pubic water system within **60 calendar days.**

4. The public water system is violating Missouri Safe Drinking Water Commission regulation 10 CSR 60 16.010, because the public water system has failed to pay the required primacy fees for calendar year 2011-2013.

   Community public water systems shall submit an annual primacy fee for each active service connection for unmetered and metered customers based on meter size. These fees help to pay for microbiological and chemical testing the department is required to do for public water systems. Missouri is unique in that the department provides testing services for public water systems within the state. Without these fees, each public water system would have to hire their own private laboratories to do the required testing at a much higher cost. Also, each public water system would have to track which/when tests must be done and obtain the appropriate sample containers to collect the samples. The primacy fee is an additional charge to the customer and the public water system is allowed to keep a portion of the primacy fee collected to pay for administrative costs.

   Within **60 calendar days**, the public water system must contact Ms. Tina Stockman at (573) 751-5331 in the Missouri Department of Natural Resources, Water Pollution Program, Fiscal Management Unit, P.O. Box 176 (1101 Riverside Dr.), Jefferson City, MO 65101-0176, to resolve payment of these required annual fees.

   The department requires Indian Hills Utilities to pay annual primacy fees to help pay for the required microbiological and chemical testing required of a public water system.

   NOTE: This office has received an email from Ms. Stockman stating that you have contacted her to pay the 2011 primacy fees and have set up a payment plan for the remaining outstanding primacy fees.

5. The public water system could not locate the lead ban user's agreement at the time of this inspection.

   The Missouri Safe Drinking Water Act (§ RSMo 640.120.7) and Missouri Safe Drinking Water Commission regulation 10 CSR 60-10.040, prohibits the use of lead, or lead-based materials, in the construction or repairs of any public water system. All community public water systems are required to enact a lead ban ordinance/user's agreement so that the public water system may have primacy to protect the water supply. A sample ordinance was given to you at the time of this inspection. The public water system must enact an appropriate lead ban ordinance/ user's agreement and begin enforcement of the ordinance/agreement or provide the department documentation of an ordinance/agreement that the public water system currently holds.

   Within **60 calendar days,** the public water system must submit a copy of lead ban ordinance/ user's agreement to the Missouri Department of Natural Resources, Southeast Regional Office, Rolla Satellite Office, P.O. Box 250 (111 Fairgrounds Rd.), Rolla, MO 65402-0250.

   The department requires that Indian Hills Utilities submit a lead ban ordinance/ user's agreement for their public water system within **60 calendar days**.

6. The public water system is in violation of Missouri Safe Drinking Commission Regulation 10 CSR 60-9.010 which establishes requirements for maintaining public water system records.

   The records of microbiological analyses and operational analysis must be retained for a minimum of five (5) years. The records of chemical analyses and any inspection reports must be retained for a minimum of ten (10) years. The records of action taken by the public water system to correct violations of regulation/law must be retained for a minimum of three (3) years. These records or reports pertaining to the public water system must be provided to its customers and to the department upon request.

   The department recommends supply file all administrative documents (Permit to Dispense, emergency operations plan, distribution map, etc.) in a separate file from sample results. This recommendation will allow easier access to documents that must be accessible to key personnel and kept on file at all times. This can also help facilitate proper disposal of outdated sample results.

   The department requires that Indian Hills Utilities retain public water system records or reports for the minimum time frame outlined above.

Source

1. Well #2 is currently off-line due to well pump malfunction.

   The public water system serves approximately 2,500 individuals with only one (1) active well and no emergency back-up supply. Public water systems serving a population greater than 500 individuals should have two (2) or more active sources of water. With Well #2 being off-line, your only option is to haul in water using tanker trucks.

This can be eliminated by repairing Well #2 and bringing it back on line. In addition to an emergency supply, Well #2 could also relieve Well #1 by alternating run times, giving the ground water recharge area around Well #1 additional time to replenish.

When Well #2 is repaired, the following upgrades need to be installed:

a. Check valve – located close to the well and before the master meter;
b. Shut off valve – located between the well head and water system to isolate the well from the distribution system;
c. Drawdown gauge – after installation readings should be taken at minimum in the summer months, but preferably reading should be conducted monthly; and
d. Casing vent's diameter needs to be increased to 1.5 inches. The vent will have to be installed on the side of the well casing, not through the well head seal.

The department recommends that the public water system repair all components for Well #2, to have an additional source of water for the water system.

2. The master meter for Well #1 is not being read.

Master meter readings contribute to the effective operation of a public water system. It can be used to identify some of the problems that result in water outages. Also, when compared to the water sold a public water system can identify the amount of water lost through leaks or flushing of lines. Water production is one of the items that should be included in operational records and routinely reported to the Public Drinking Water Program on operating report forms.

The department recommends at minimum that the public water system record the master meter readings at least weekly and maintain a copy of these records in an accessible area for accurate accounting of water pumped by the well.

3. A sample tap was not provided for collecting samples at the well prior to any chemical treatment for Well #1.

The Ground Water Rule requires each public water system to have a sample tap on/near the well discharge piping so that a microbiological sample can be collected prior to any chemical treatment or any storage. Sampling the source water (well) is required whenever there is a total coliform positive sample in the distribution system. Accurate sampling from the well can help rule out the source water as a possible contamination point within the potable water system. The sample tap should be all metal and smooth nosed (no hose bib threads). Installation of the sample tap is preferred to be on the well discharge pipe before the check valve. This location also provides a means to verify that the check valve is holding and not leaking.

The department recommends that the public water system must install a sample tap at the well discharge pipe before the check valve.

4. The well's drawdown gauge is not being utilized to measure for static water level(s) and pumping water level(s) throughout the calendar year for Well #1.

Drawdown measurements/readings are used to detect the water level within the well. If the water is drawn down to the pump intake point, pump damage may occur. Drawdown measurement/readings are intended to make it possible for the operator to detect and prevent such problems.

The department recommends, at minimum, that drawdown readings be taken during the summer months when water usage is at the highest, however, monthly readings are recommended for verification of well water level(s) throughout the calendar year.

5. Corrosion was observed on the surface of the well casing, wellhead and piping.

   Failure to control corrosion on the metallic surfaces of the public water system's components may result in premature failure and unnecessary water outages. It is important to clean off the rust and scale then apply rust preventive paint before the well components deteriorate further. Additional damage to the casing may require the casing to be cut and a new casing section welded on. This is a significant expense the public water system can avoid with proper maintenance and repairs.

   The department recommends that the public water system clean (remove) rust and scale from all metallic surfaces and apply a surface protective coating.

6. Poor housekeeping was observed in the well houses at both wells.

   The well house is in a state of clutter and disarray. Dust, debris, parts and equipment are scattered around the floor making access to equipment difficult and hazardous. This situation makes proper maintenance and operation difficult.

   The department recommends that the public water system reorganize or remove miscellaneous equipment stored inside the well house then thoroughly clean the well house walls, floors, etc.

Distribution

1. The public water system does not have a cross-connection control plan in accordance with Missouri Public Drinking Water Commission regulation 10 CSR 60-11.010.

   A cross-connection between the system and anything other than approved portable water may cause a serious health hazard to the customers should a backflow event occur. All community public water systems should have a local ordinance or policy prohibiting any cross-connection. The ordinance or policy should also require the installation of the appropriate backflow prevention device on the customer's service line and annual testing of the customer's device. A sample ordinance was given to you at the time of this inspection.

   The public water system must enact an appropriate cross-connection control ordinance or policy and begin enforcement of the ordinance or policy. Within **60 calendar days**, from the receipt of this inspection report the public water system must submit a copy of the cross-connection control ordinance or policy to the Missouri Department of Natural Resources, Southeast Regional Office, Rolla Satellite Office, P.O. Box 250 (111 Fairgrounds Rd.), Rolla, MO 65402-0250.

The department requires that Indian Hills Utilities submit an ordinance or policy for a cross-connection control plan for their public water system within 60 calendar days.

2. The department has experienced a high volume of customer concerns in regards to low water pressure within the public water system, during a main break or leak.

   Failure to maintain minimum pressures of at least 20 pounds per square inch (psi) are considered a health hazard and a violation of the Missouri Public Drinking Water Commission regulation 10 CSR 60-4.080(9). This pressure level is required to keep contamination from entering the system and back flow from household appliances entering the distribution system. During a main break or leak event the customers affected must be notified by phone, email, door to door, etc. if pressure drops below 20 psi, to boil their water until safe samples are obtained from that area of the distribution system. The public water system must also report any low water pressure events or boil advisories to the department. A copy of the "Report of Low Water Pressure" form was given to you at the time of this inspection for reporting any pressure drops below 20 psi events within the distribution system.

   The department requires the public water system to notify customers and the department of any low water pressure events below 20 psi or boil advisories issued by the public water system.

3. The public water system does not have an up-to-date distribution map.

   Copies of an updated distribution map(s) should be made available to water system operators and others involved in operation, maintenance and management of the public water system. Water lines need to be indicated on distribution map(s) in relation to buildings, roads or permanent landmarks. Known water lines should have size indicated and be shown as a solid line on the map(s). With unknown water lines, estimated locations should be indicated as dashes on distribution map(s). Accurate locations of public water system facilities can be critical in times of an emergency and may aid to eliminate and/or reduce the duration of water outages during repairs.

   The department recommends that the public water system establish an updated distribution map(s) depicting the entire water system to include accurate locations of water lines, hydrants, valves, sample points, etc.

4. The public water system does not have a program for or does not practice routine unidirectional water main flushing. Water main flushing currently is only conducted on an as needed basis.

   A properly designed and implemented unidirectional flushing program is crucial for maintaining good water quality and for properly maintaining a water distribution system. Proper flushing moves water through the lines in an organized fashion at velocities high enough to create a scouring action inside the pipe. Water velocities during flushing should reach at least two-and-one-half (2-½) feet per second (fps) and preferably five (5) fps. Flushing velocities should not exceed eight (8) fps. The entire system should be flushed at least semi-annually unless water quality requires more frequent flushing of the total distribution system. When flushing isolated parts of the system, it is important to not cause pressure or turbidity problems in other parts of the distribution system.

Hydrants and valves should always be opened and closed slowly to minimize water hammer. Water tower levels and system pressures must be managed to prevent low pressures. All details of the flushing event (pressures, flows, velocities, minutes each hydrant is flushed and the open or closed configuration of each valve) must be recorded. Special bacteria samples should be taken throughout the system after flushing to make sure the high water velocities did not cause bacteriological problems.

The department recommends that the public water system develop and institute a proper water main flushing program that will begin at or near the water source and move outward through the distribution system.

Storage

1. The public water system does not have sufficient water storage for the current population.

   A water storage tank(s) of adequate volume is necessary for efficient operation of a public water system. In operation, pressure tanks act as well control devices rather than true storage. The greatest wear on a well pump occurs when it is turned on, not while the pump is running. With an insufficient sized pressure tank or water storage tank, the well pump is turned on frequently for very short durations. By sizing the gross volume of a pressure tank or water storage tank at 35 gallons per person served, the well pump is activated less and allowed to run for a longer period of time before it shuts off, resulting in less wear on the well pump motor. An adequately sized pressure tank or water storage tank also provides a more even and constant pressure to your customers. The public water system should plan on a gross volume of 35 gallons for each person served and an average of three (3) persons per household.

   The department recommends that the public water system begin planning now for adding additional storage tanks to adequately serve the water system.

2. The public water system does not have the most recent water storage facility's inspection and/or repairs reports.

   The public water system had the 20,000 gallon ground storage tank inspected in 2011. A copy of all work conducted by the engineering firm and/or contractor is recommended for the public water system to obtain and have available as a reference document for the department during an inspection. This report(s) is also important for any company warranty on parts, coatings, etc. that were used on the storage facilities. Without this report(s) the public water system will be unable uphold the warranties and if structural or component failures occur this could cost the public water system additional monies for repair(s) and/or replacement(s).

   The department recommends that the public water system set a policy requiring detailed inspection reports on any inspections and/or repairs conducted on the water storage facilities and maintain this report in an easily accessible area where it can be used by the public water system and the department as a reference document.

3. The pubic water system does not have any records of the 5,000 gallon pressure tank ever being inspected by a professional tank inspector.

   Contamination of water storage facilities is a leading cause of unsafe potable water in public water systems. Water storage facilities should be inspected by a professional tank inspector for physical deterioration and sanitary features, every three (3) to five (5) calendar years. Inspection should include any observed corrosion on the interior or exterior of the water storage facility. Pealing, flaking paint or blisters are all avenues for bacteria and other contaminants to "lodge" into the walls of the water storage tank. The inspection should clearly document the condition of the water storage facility including both structural and sanitary features. It is important that the report cite individually each of the sanitary features of the tank and their conditions.

   The department recommends that the public water system procure services from a contractor of their choosing to inspect, clean, repair/replace components and paint any exterior or interior portions of the water storage facility.

4. The water storage facilities are partially housed. The back 90% of the water storage facilities are buried and not protected by a building.

   Water storage facilities should be above the normal ground surface and housed to protect from weather conditions. Any housing should allow enough room for visual inspections of the water storage facilities' outer surfaces. Without proper housing around the water storage facilities, rust and corrosion may go unnoticed causing leaks or ruptures to the tank walls, which may result in unnecessary water outages and premature replacement of the water storage facilities.

   The department recommends that the public water system begin plans to uncover the water storage facilities and construct housing for proper weather protection.

5. Corrosion was observed on the surface of the water storage facilities exterior surfaces and related components housed within the well house.

   Failure to control corrosion on the metallic surfaces of the public water system's components may result in premature failure and unnecessary water outages. It is important to clean off the rust and scale then apply rust preventive paint before the pressure tank and related components deteriorate further. Additional damage to the pressure tank and related components may require the tank walls or piping is cut and new sections welded on. This is a significant expense the public water system can avoid with proper maintenance and repairs.

   The department recommends that the public water system clean (remove) rust and scale from all metallic surfaces and apply a surface protective coating.

Treatment

1. The public water system has only one (1) chemical feeder and a repair kit for this feeder. Standby or redundant disinfection facilities are not provided.

A backup chlorination pump was not provided to continue disinfection if the current pump should fail. Because the public water system is required to disinfect, equipment failure would require the public water system to shut down or issue a boil water notice.

The department recommends that the public water system acquire essential backup parts and equipment to ensure that chlorination equipment can be replaced in a timely manner.

2. The ventilation piping for the chlorine solution tank is not screened.

   Current configuration of the ventilation piping of the chlorine solution tank could allow the entrance of birds and large insects into the chemical tank. This situation can be eliminated by installing an 18 gauge mesh corrosion resistant screen over the outside piping.

   The department recommends that the public water system install a screen over the outside ventilation piping for the chlorine solution tank.

Pumping Facilities

1. There is no emergency notification system for the failure of a critical presssure booster pump(s).

   The public water system should have a functioning telephone dialer or similar automatic system to notify the operator in the event a critical pump or other critical process fails to operate. Without proper notification the operator will not be alerted to a malfunction or failure until customers call reporting a service outage. If pressure drops below 20 psi as a result, a boil water notice will be required.

   The department recommends that the public water system consult with an engineer and begin the process to install a failure alarm system for the pressure booster pumps.

2. The public water system has only one (1) booster pump available at each well/storage facility for pressure regulation.

   The public water system should have at least two (2) equal and functioning units, so if one unit fails the facility can still provide service. Currently if a booster pump should fail and the pressure drops below 20 psi a result a boil water notice will be required.

   The department recommends that the public water system obtain a secondary unit for each booster pump in case of emergency or failure so service can still be provided.

3. There is no lighting within the pump house for safety or for routine inspection and maintenance at the Highway DD Booster Pump Station.

   For safety and basic routine operations, lighting must be provided so that every part of the facility is well lit and all instrument readings, maintenance and operations can be performed without additional lighting.

   The department recommends that the public water system add or improve the lighting within the pump house.

4. There is no heating or adequate ventilation for the Highway DD Booster Pump Station.

   This pump station does not heat to prevent freezing in the winter or adequate ventilation or humidity control for the summer. Excessive heat or freezing could result in equipment malfunction and possibly damage to the water system components, resulting in low water pressure events or water outages.

   The department recommends that heating and adequate ventilation be installed to insure that public water system equipment does not malfunction during extreme temperatures.

5. The building walls for the pump house at Highway DD Booster Pump Station are rotting and falling down.

   Excessive moisture within the pump house has started to rot out the walls. Pieces of wall board, insulation, and other debris are all over the floor of the pump house. Unless repairs are made the water facility components may be in jeopardy of damage from the weather or from unauthorized access (animal).

   The department recommends that the public water system clean out the pump house and make the necessary repairs to the wall to eliminate debris from falling onto the floor.

COMMENTS:

A bacteriological sample was taken at the time of inspection at 2484 Sanchez sample site location and the results were absent total coliform. Chlorine residuals were taken during this inspection and the results were 0.78 mg/L Free and 0.83 mg/L Total.

Since the last inspection conducted by the department on September 20, 2011, the public water system has obtained an agreement for a generator during emergency situations, vented the active chlorine tank to the outside, repaired the electrical line to the ground storage tank, paid outstanding primacy fees for 2004-2007 and 2009-2010, and Mr. Matthew Eaton obtained his DS II level of certification. 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 and Mr. Eaton for your time and assistance during the inspection. If there are any questions concerning this report please feel free to contact me at 573-368-7344.

SUBMITTED BY:

Michelle Oglesby
Environmental Specialist III
Southeast Regional Office
Rolla Satellite Office

APPROVED BY:

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

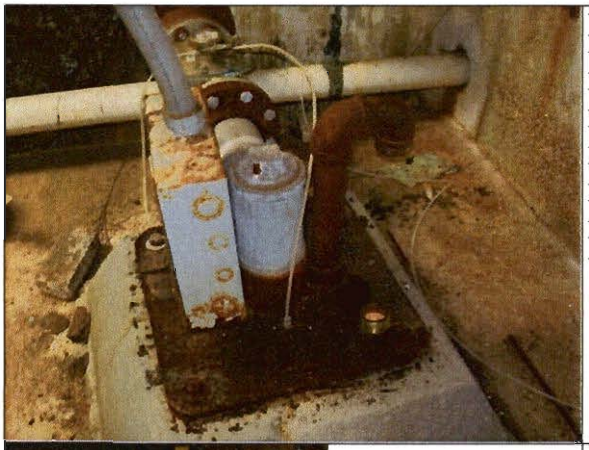


Photo #:1
Date Taken: 08/20/2014
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities
Description: Well head and casing for Well #1.

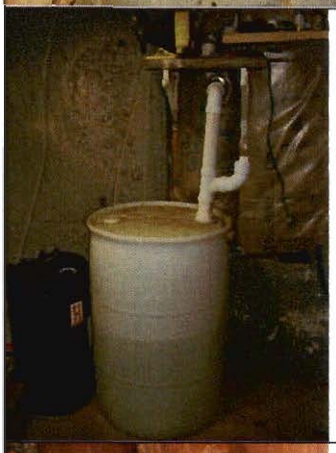


Photo #:2
Date Taken: 08/20/2014
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities
Description: Chlorine pump and solution tank.

Photo #:3
Date Taken: 08/20/2014
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities
Description: Chlorine injection point, just after the well and before the 20,000 gallon ground storage tank.

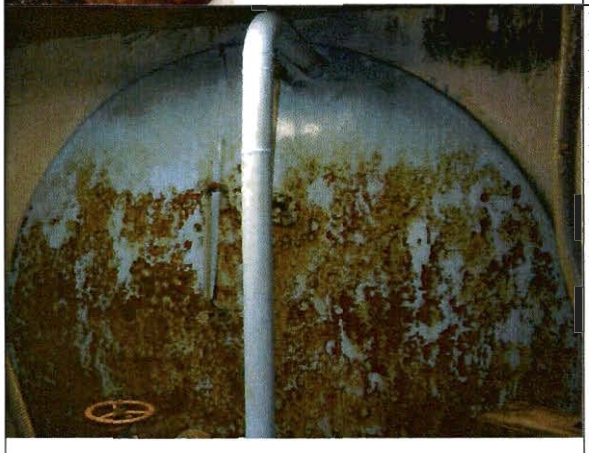


Photo #:4
Date Taken: 08/20/2014
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities
Description: East end of 20,000 gallon ground storage, upper terminal.

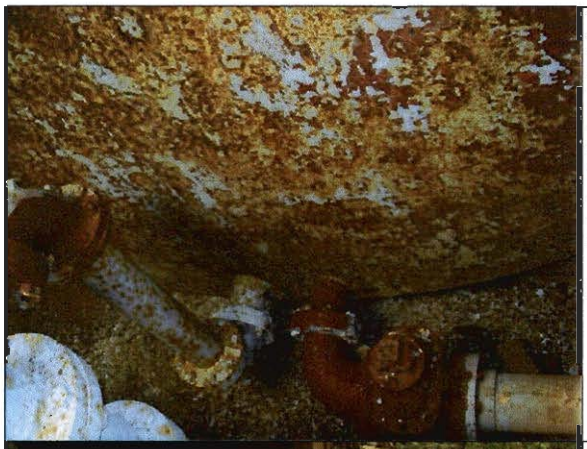


Photo #:5
Date Taken: 08/20/2014
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities
Description: East end of 20,000 gallon ground storage, lower terminal with piping.

Photo #:6
Date Taken: 08/20/2014
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities
Description: 20,000 gallon ground storage access hatch and vent/over flow piping.

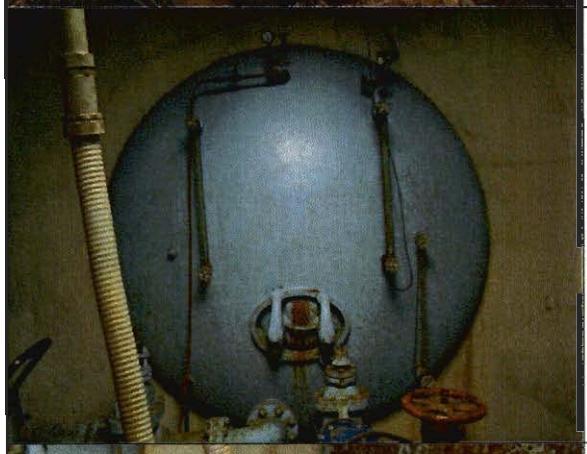
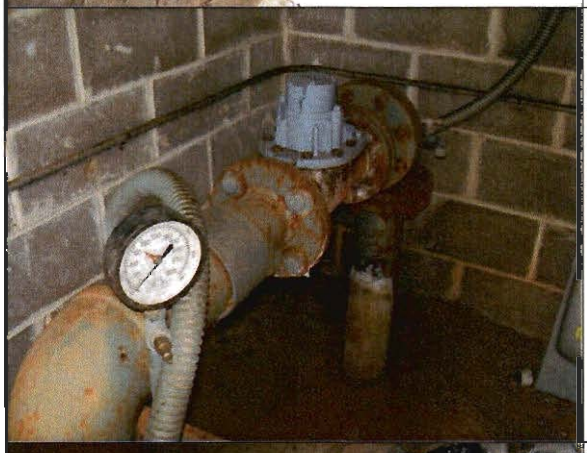
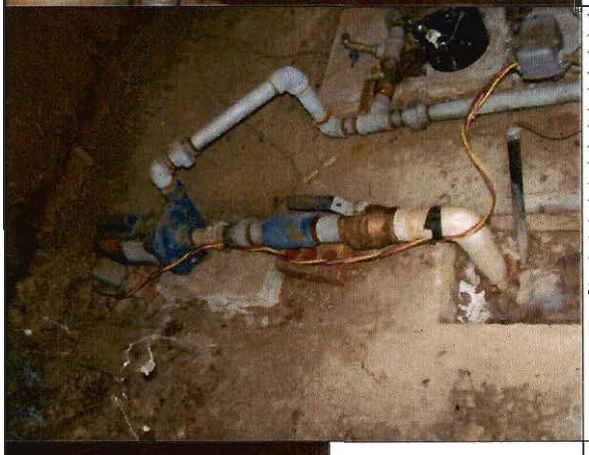


Photo #:7
Date Taken: 08/20/2014
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities
Description: North end of 5,000 gallon pressure tank.

Photo #:8
Date Taken: 08/20/2014
By: Michelle Oglesby
Program: PDWB
File: Crawford County
Location: Indian Hills Utilities
Description: Pump and piping within the well house for Well #1.

	Photo #:9 Date Taken: 08/20/2014 By: Michelle Oglesby Program: PDWB File: Crawford County Location: Indian Hills Utilities Description: Well head and casing for Well #2.
	Photo #:10 Date Taken: 08/20/2014 By: Michelle Oglesby Program: PDWB File: Crawford County Location: Indian Hills Utilities Description: Piping for Well #2.
	Photo #:11 Date Taken: 08/20/2014 By: Michelle Oglesby Program: PDWB File: Crawford County Location: Indian Hills Utilities Description: Pressure booster pump for homes along Highway DD.
	Photo #:12 Date Taken: 08/20/2014 By: Michelle Oglesby Program: PDWB File: Crawford County Location: Indian Hills Utilities Description: Pressure tanks that work in conjunction with booster pump for additional pressure within the system. They are not used as storage.