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Janet Napolitano
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov



Stephen A. Owens
Director

August 19, 2008

Inspection ID:123663

Mt. Tipton Water Co.
Attn: John Janek
P. O. Box 38
Dolan springs, AZ, 86441

RE: Mount Tipton Water Co, PWS: 08-059, Place ID : 5776

Dear Mr. Janek:

Please find enclosed a copy of a sanitary survey report for the above referenced facility. The inspection was performed on **July 9, and August 7, 2008**, in accordance with Arizona Administrative Code R18-4-101, et sequi, R18-5-101, et sequi, and Arizona Revised Statutes 49-101, et sequi. The report may include a summary of inspection, checklist and inspection rights form, or other information regarding the facility.

If there are any questions please contact A. T. Wilson at the referenced address, or at 928-773-2708.

Sincerely,

Robert E. "Buck" Olberding
Field Services Manager
Northern Regional Office
Arizona Department of Environmental Quality

Arizona Corporation Commission
DOCKETED

AUG 22 2008

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AZ CORP COMMISSION
DOCKET CONTROL

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RECEIVED

Cc: ADEQ/WQCS

ATTN: Cynthia Campbell, Section Manager
Arizona Corporation commission- 1200 W. Washington St., Phx., AZ, 85018
ATTN: Director of the Utilities Division & Ms. Dorothy Hains, P. E.
Arizona Department of Water Resources- 3550 N. Central Ave., Phx, 85012
ATTN: Mike Ball, Sr. Compliance Enforcement Officer
MCHD/ES/Kingman-3675 E Hwy 66, Kingman, 86401
MCP&Z-same

Northern Regional Office
1801 W. Route 66 • Suite 117
Flagstaff, AZ 86001
(928) 779-0313

Southern Regional Office
400 West Congress Street • Suite 433
Tucson, AZ 85701
(520) 628-6733

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ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
Northern Regional Office
1801 West Route 66, Suite 117, Flagstaff, Arizona 86001

INSPECTION REPORT

Facility: Mt. Tipton W. C.	System # 08-059
Inspected By: A. T. Wilson	Date: 7/09/08 IID:123663
Accompanied By: Bob Martinez-MCHD, Frank Soto-ASUA, John Janak, others	County: Mohave
Recommendations By: A. Wilson	Report Date: 8/19/08
Number of Plants: 0	Wells: 9
Population: 3900	Service Connections: 898

COMPLIANCE SUMMARY

The water system is in compliance with the following ADEQ requirements:

	YES	NO	N/A	N/E
Certified Operator (System Grade)	x			
Physical Facilities		x		
Monitoring and Reporting		x		

INSPECTION SUMMARY

The survey of the above referenced facility included:

An inspection of the physical facilities	X
Interview with personnel	X
A review of ADEQ monitoring and reporting databases	X
A review of the NRO files	X
A review of files at the facility	

The following observations and recommendations were based upon the criteria checked above:

Major Deficiencies:

Monitoring and Reporting:

1. The system currently has four unresolved monitoring and reporting violations; see the attachment. Contact the ADEQ Water Quality Compliance Data Unit at 1110 W. Washington, Phoenix, 85007, to resolve these items. Please copy the NRO with all related correspondence.

Wells:

2. ADEQ requests that the system repair and seal the direct openings into well number 1. Extra silicone sealant should be added to well # 2, 3 and 6
3. ADEQ requests that you remove the galvanized pipe and fittings from well number 1. This also applies to any other well, within the system, with galvanized pipe on the surface. This is a repeat violation.
4. In order to reduce the current level of water loss and stop the erosion around both the building base and the discharge line; ADEQ requests that you replace the auto sensor on well number 6 to prevent excess water from overflowing the storage tanks at night.
5. ADEQ requests that you repair the leak at the center well head on well number 8.
6. There is currently no security of any type at the well site for well # 9B. Consequently, ADEQ requests that you secure the well site for well # 9B; preferably with a fence that meets ADEQ Engineering Bulletin # 10 standards.

7. ADEQ has no records of either source approval sampling or Approval of Construction for any of the wells on the system. The Department requests that you furnish the ADWR well permit, well number, ADEQ source approval data and Construction Certification for each well on the system.

There is a possibility that the posted number for well # 8 actually belongs to well number 9B. Well number 9B is not listed on the system in our database, however, it is connected into the system. ADEQ requests that you furnish the same documentation for this well.

8. The well identified as "non-potable" located within the well # 8 yard is plumbed into the delivery system and was formerly used in the system. It is temporarily valved off to flow to the non-potable tanks. ADEQ practice requires that all wells which are physically connected to the system be treated as if they are in use. ADEQ requests that the water company supply the same data requested in item # 4 for this well. Additionally, supply construction data including well depth and casing screen depth.

9. Due to the location and form of these three wells (8, 9B and Non-potable) and the conditions identified in AAC R18-4-301.01 they are probably ground water under the influence of surface water(GWUI); as such they are required to be treated as surface water.

ADEQ requests that the company's Engineer conduct an MPA test and other testing which may be needed to determine whether the wells are actually GWUI or can be classified as true groundwater. If the testing determines that the sources are in fact GWUI the Engineer must submit plans for the required water treatment plant to the Drinking Water Plan Review Unit at 1100 W. Washington St., Phx., 85007 for an Approval to Construct.

Once that Approval is issued, the plant must be constructed and As-Built Plans with required closure documentation including all

testing data, disinfection data and an Engineer's certificate of Completion. The documentation must be submitted to the NRO Plan Review Unit in Flagstaff for an Approval of Construction before the plant can be placed into operation.

Tanks:

10. Downtown (Kevin's tanks); the black plastic tanks require cleaning as they have some sort of residue coating the insides of the tanks. The access portals need to be locked. The metal tank is leaking and near failure due to corrosion. It requires either extensive repair or replacement; preferably with a larger tank.
11. The transfer pump which feeds the primary storage tank for well # 5 is leaking. This condition prevents the pump from operating at its required level of efficiency. This in turn delays the sites capability to resupply the system; particularly during high demand periods. The pump requires repair or replacement.
12. The storage tank base for well # 5 is failing due to loss of the steel base retention ring. ADEQ requests that the ring be repaired or replaced and the lost base fill be replaced.
13. Mid Range Tanks; ADEQ requests that you repair the eroded tank bedding and broken bedding ring here also.

EPDS':

14. The actual EPDS' for this system are located at the discharge lines from the storage tanks. These will be at the well # 5 storage tank, Kevin's tanks, Dolan tanks, mid range tanks and the upper range tanks. ADEQ requests that the required sampling taps be installed on each actual EPDS which does not already have a tap.

Booster / Transfer Stations:

15. ADEQ requests that you repair or replace the valve packing in the leaking pump in booster station number 1. The leak is reducing the pump efficiency and contributes to the inability of the system to meet supply requirements during periods of high demand. It also contributes to the probability that the pump will fail.

16. ADEQ requests that you repair or replace the out of service booster pump at the Mid-Range booster station. The out of service pump reduces the system's ability to meet demand. Both pumps at this site are substandard for need and should be upgraded to higher capacity pumps in order to be able to refill the upper range tanks in a more expeditious period of time. 4 to 5 days to refill these tanks, even with aid from the interconnect pumps is too long a period.

17. System Interconnect; As originally constructed the connection consists of 3 inch piping and two limited capacity transfer pumps (Kevin's Station pumps). The pumps are over 40 years old and due to system growth, are now undersized for the current resupply capacity needed and the 3 inch line lacks the carrying capacity as illustrated by the systems inability, in conjunction with the mid-range booster station, to resupply the upper range tanks. ADEQ requests that the pumps in question be upgraded and the interconnect piping be increased in diameter to a size capable of handling the resupply demand.

Standpipes:

18. Downtown standpipe;
 - A. ADEQ requests that a constructed air gap meeting Bulletin # 10 standards be installed in the standpipe.
 - B. ADEQ requests that all galvanized piping be removed from the station.

19. Detridal (Well # 4); Although owned by the system, it is not currently plumbed into the system. Consequently it actually constitutes a separate, independent, water system. However the well acts as a source of hauled water when needed to supplement water shortages for the Mt. Tipton system.

The well will be designated by the Department as its own system. Please submit copies of all source approval sampling, well and site plans and required plan review applications to the Departments Plan Review Unit in Phoenix for an Approval to construct.

As soon as this approval is received, submit the AS-Built plans and required closure documentation to the NRO for an Approval of construction.

ADEQ recommends that prior to submittal of the plans, a constructed air gap be added top the standpipe and all galvanized pipe be removed from the site. These changes should be noted in the plans.

Minor Deficiencies:

Wells;

1. As the site is completely lacking in security, ADEQ requests that the system complete the fence around well # 7 and the storage tanks at Kevin's yard.

Booster / Transfer Stations:

2. Kevins tanks; ADEQ requests that the eroded "pit" at the discharge line from the booster station structure be back filled to protect the piping. The leaking roof for this structure is causing electrical problems with the transfer pumps and must be repaired to prevent further damage. The pumps are worn and one or both of the pumps themselves are frequently out of service and need replacement. (See item # 17.)
ADEQ requests that the pumps be replaced and upgraded.

20. ADEQ requests that the failed pump located at the Mid range transfer station be repaired and when possible both pumps should be upgraded to higher capacity pumps.

Tanks:

4. ADEQ requests that you replace the missing block and repair the tank bedding on the mid-range tanks.

5. ADEQ requests that the tank access ladder on the same tanks be secured.

6. ADEQ requests that the visual water level gauge scale on the Older upper range tank be replaced or repainted.

7. ADEQ also requests that the bedding on the older upper range tank be repaired.

8. ADEQ requests that the base ring for the storage tank for well # 5 be repaired and the lost fill be replaced.
The water flow meter for this well is not functioning, without the meter the well flow cannot be measured, ADEQ requests that the meter be repaired or replaced. .

Distribution System:

9. A portion of the overall water loss is due to leaks in the distribution system, some of these leaks are known. ADEQ requests that all locatable leaks be repaired and lines replaced as necessary.

Inspection Recommendations:

1. The system has experienced several recent water outages due to ageing equipment or substandard water line failure and the inadequate interconnection between the Dolan system and the Mount Tipton system.. ADEQ requests that the company conducts a survey of the system and determine which equipment and lines require replacement or upgrading. Particularly, the survey should locate and mark all existing valves within the distribution system which cannot now be located. Those valves which have failed should be replaced.

Delivery mains in the distribution system vary from 1.5 inches to 6 inches in diameter. Many of the old lines are very long and are "dead-end" lines that require extra maintenance and result in monthly water loss. Consideration should be given to replacing the small diameter mains and looping as many of the mains as possible to enhance efficiency of delivery and reduce maintenance.

According to the data submitted to the Department by the system, within the last 12 months the system has "lost" over 12 million gallons of water due to leaks and faulty service meters.

The replacement of these meters should be a priority as the additional income from the recovered loss through the meters will help alleviate the financial shortfalls that the system is experiencing.

The construction of the surface water treatment plant (if required) should enable the system to bring the "non-potable" well back on line..

The survey information should be used to help develop a Master Plan for the system. This plan should be developed under the supervision of a Professional Engineer registered in the State of Arizona. It should indicate current conditions and make proposals for future developments to bring the system into compliance with professional engineering standards and all current Departmental Rules. It should also develop requirements and feasibility of bring the Detritial Well (# 4) into the system.

2. ADEQ requests that all exposed PVC pipe in the system should be wrapped or painted to protect it from UV exposure.
3. ADEQ requests that you secure the electrical controls for the wells and the booster stations. This request also applies to all other sites on the system. This is necessary to protect the controls from tampering or other vandalism.
4. ADEQ requests that all access hatches on all storage tanks be sealed with appropriate air and insect tight seals. The access ports for the visual gauge cables and any electronic cable ports also should be sealed.
5. ADEQ requests that all overflow lines from the storage tanks be sealed with either 16 gauge screen, or flapper valves to prevent insect intrusion into the tanks.
6. Cumulative grading of the drainage surface from Pierce Ferry Road Has apparently resulted in lowering of the ground level over the buried mains that parallel the road. Vibration and weight transfer from the heavy bus and truck load now on the road is resulting in line failure in these mains.
ADEQ requests that as part of the Master Plan, the lines be relocated, placed into deeper trenches and buffered against further wear from road traffic.

7. ADEQ requests that the site gauge on the pressure tank for well number 5 be repaired or replaced.
8. The original plans for well # 5 called for a 60,000 gallon storage tank. A 10,000 gallon tank was installed instead. This storage capacity is proving inadequate to system needs. ADEQ requests that the storage tank be upgraded to the planned 60,000 gallon tank.
9. ADEQ requests that you rotate the well vents on well # 1 and # 3 so that the vent opening is not vulnerable to weather events (rain, etc.). This requirement also applies to those other sites with the same problem.
10. ADEQ requests that you remove the corrosion or replace the sampling tap for well # 1.
11. ADEQ requests that you replace the $\frac{3}{4}$ inch threaded pipe nipple on well number 2 as the existing one is loose.
12. ADEQ requests that the sampling tap for well # 3 be replaced.
13. ADEQ requests that you repair or replace the meter on the discharge line for well # 5.
14. ADEQ requests that Chlorine injector valves be installed on the discharge line from each well and that a portable standby chlorinator and chemicals be purchased to be used when needed.

Facility Response Guidelines:

- 1) Within 30 days please bring to the attention of ADEQ any determinations you believe are in error.

- 2) Major Deficiencies are subject to a Notice of Violation (NOV), whereas Minor Deficiencies are subject to a Notice of Opportunity to Correct (NOC). Inspection recommendations may be implemented at the discretion of the facility in order to improve system operation. NOC's may be escalated to NOV's, where it is judged to be appropriate, such as, but not limited to, situations where repeated violations have occurred or it is deemed necessary for public health.

SYSTEM DESCRIPTION:

This community system consists of 9 wells, at least two of which are spring wells, 10 storage tanks of assorted size, 2 pressure tanks, 4 booster / transfer stations and a 3 pressure zone distribution system.

Arizona Department of Environmental Quality		Water Quality Division		Safe Drinking Water	
County Map of Arizona		Water System Search			
Water System Detail Information					
Water System No.:	AZ0408059			Federal Type:	C
Water System Name:	MT TIPTON WATER CO INC			Federal Source:	GW
Principal County Served:	MOHAVE			System Status:	A - MA
Principal City Served:	DOLAN SPRINGS			Activity Date:	05-01-1

Group Violations								
Fed Fiscal Year	Comp Prd Begin Date	Comp Prd End Date	Sample Point	Viol Type	Violation Name	Comp Achieved	Analyte Group	Analyte Group
2008	01-01-2004	12-31-2007	EPDS010	03	MONITORING, ROUTINE MINOR	Y	RADS	RADS
2005	01-01-2004	12-31-2004	EPDS004	03	MONITORING, ROUTINE MAJOR	Y	VOCD	DATA ENTR VOCS
2002	01-01-2001	12-31-2001	EPDS004	03	MONITORING, ROUTINE MAJOR	Y	VOCS	VOCS W/O \ CHLOR

Individual Violations								
Violation No.	Comp Prd Begin Date	Comp Prd End Date	Sample Point	Viol Type	Violation Name	Comp Achieved	Analyte Code	Analyte Name
<u>2008-17760</u>	06-01-2008	06-30-2008		23	MONITORING (TCR), ROUTINE MAJOR	N	3100	COLIFORM (TCR
<u>2008-17758</u>	04-01-2008	06-30-2008	EPDS002	03	MONITORING, ROUTINE MAJOR	N	1040	NITRATE
<u>2008-17759</u>	04-01-2008	06-30-2008	EPDS010	03	MONITORING, ROUTINE MAJOR	N	1040	NITRATE
<u>2008-17757</u>	05-01-2008	05-31-2008		23	MONITORING (TCR), ROUTINE MAJOR	N	3100	COLIFORM (TCR
<u>2008-17754</u>	01-01-2004	12-31-2007	EPDS011	03	MONITORING, ROUTINE MINOR	Y	4030	RADIUM-228
<u>2008-17756</u>	01-01-	12-31-	EPDS011	03	MONITORING, ROUTINE MINOR	Y	4010	COMBINED RAD 226 & -228)

Andy T. Wilson

From: Denise [denisengary@citlink.net]
Sent: Wednesday, August 06, 2008 4:50 PM
To: Andy T. Wilson
Subject: GPM OF WELLS

Well #

- 5 Chambers well 23 gpm
- 1 OFFICE WELL 22 GPM
- 2 Iron Well 18 GPM
- 6 Field Well 25 GPM AKA: Tom White REAR Well
- 7 Tank Well 40 GPM AKA: Tom White FRONT Well
- 3 LDS Well 10 GPM
- # 8 Well 10 GPM
- #9 Well 900 GPD
- #9B Well 18 GPM

I took these reading on 3/19/08

I hope that this will help you.

Gary Guffey

ADEQ Review

7/9/08

Request of Information Based on June, 2008 Reports

ARIZONA DEPARTMENT OF
ENVIRONMENTAL QUALITY
NORTHERN REGIONAL OFFICE

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Water Supply: The Mt. Tipton Water Co., Inc. has the following water producing capacity:

Well #	Production GPM
1	20
2	19
3	10
4	Not in Service - DETRIAL Well
5	22
6 > OLD Dolan Wells	14
7 >	21
8 - SPRING well	21
9	12
9B - SPRING well	18
Total Water producing capacity:	139 gpm 157

These figures are based on calculations done in 2007.

Holding Capacity: The Mt. Tipton Water Co., Inc. has the following holding capacity identified by site:

Site	Holding Capacity	# OF TANKS
Chambers	10K >	2
Chambers Hydro Tank	600 >	
Upper Tanks	250K	2
Mid range Tanks	135K	2
Dolan Tanks	75K	2
White Drive Tanks	25.5K	3

Water Demand: Based on the June, 2008 end of the month reports, water sold for the month was 3,888,645 gal. This is an average of 5,276 gallons to 737 active meters. The number of meters varies during each month as accounts open and close. Of these 737 meters, 113 have 0 usages. Many of these 113 will become active over the next few years. In addition to the active meters, the Mt. Tipton Water Co., Inc. has many meters which are inactive vacant or unoccupied lots.

Transmission and Distribution Water Lines: Mt. Tipton Water Co., has water lines ranging from 1.5" to 6" water lines. Many of our lines are long or dead end lines that are too small in diameter. The dead end lines require maintenance and water loss each month.