

# STATE OF COLORADO

Bill Ritter, Jr., Governor  
James B. Martin, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

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Colorado Department  
of Public Health  
and Environment

August 17, 2009

PWSID# CO-0160600  
Teller County Water & Sanitation District No. 1  
Mr. William Wallick, Chairman  
PO Box 578  
Woodland Park, CO 80866-0578

*Certified Mail Number: 7007 0220 0001 0162 1474*

**RE: Service of Drinking Water Enforcement Order, Number: DC-090817-1**

Dear Mr. Wallick:

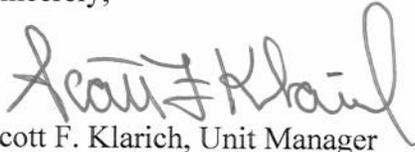
The Teller County Water & Sanitation District No. 1 is hereby issued the enclosed Enforcement Order (the "Order"). This Order is issued by the Colorado Department of Public Health and Environment, Water Quality Control Division (the "Department") pursuant to the authority given to the Department by §25-1.5-203 of the Colorado Revised Statutes ("C.R.S."). The Department bases this Order upon findings that the Teller County Water & Sanitation District No. 1's operational and maintenance practices pose an unreasonable risk to the public health.

As a recipient of an enforcement order the Teller County Water & Sanitation District No. 1 may request a formal hearing to contest the Order in accordance with the Regulations, 5 CCR 1003-1, §1.6.7(g). Requests for such a hearing must be filed in writing with the Department within thirty (30) calendar days after service of the Order. Hearings on enforcement orders shall be held in accordance with applicable provisions of the State Administrative Procedure Act, §§24-4-101 through 24-4-108, C.R.S.

This action could result in the imposition of administrative or civil penalties. The Department or a State District Court is authorized pursuant to §25-1-114.1, C.R.S. to impose a penalty of up to \$1,000 per violation per day. Please be advised that the Department is continuing its investigation into this matter and the Department may identify supplementary violations that warrant amendments to this Order or the issuance of additional enforcement actions.

Should you or the Teller County Water & Sanitation District No. 1 desire to informally discuss this matter with the Department or if you or others have any questions regarding the Order, please don't hesitate to contact Ms. Lauren Worley at (303) 692-3547 or by electronic mail at [lauren.worley@state.co.us](mailto:lauren.worley@state.co.us).

Sincerely,



Scott F. Klarich, Unit Manager  
Enforcement Unit  
Compliance Assurance Section  
WATER QUALITY CONTROL DIVISION

Enclosure

- cc: Teller County Environmental Health Department  
Drinking Water Enforcement File
- ec: Benson Smith, Treatment Technology (Administrative Contact)  
Donald Murray, Treatment Technology (Operator in Responsible Charge)  
Heather Drissel, Engineering Section, WQCD/CDPHE  
Dick Parachini, Watershed Program, WQCD/CDPHE  
Betsy Beaver, Facility Operators Program, WQCD/CDPHE  
Shawn McCaffrey, EPA Region VIII  
Carolyn Schachterle, Financial Solutions Unit, WQCD/CDPHE



**COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT  
WATER QUALITY CONTROL DIVISION**

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**ENFORCEMENT ORDER**

**NUMBER: DC-090817-1**

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**IN THE MATTER OF: TELLER COUNTY WATER & SANITATION DISTRICT NO. 1  
PUBLIC WATER SYSTEM IDENTIFICATION NUMBER: CO-0160600  
TELLER COUNTY, COLORADO**

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Pursuant to the authority vested in the Colorado Department of Public Health and Environment (the "Department") by §25-1-109 and §25-1.5-203 of the Colorado Revised Statutes ("C.R.S."), which authority is implemented through the Department's Water Quality Control Division (the "Division"), the Division hereby makes the following findings and issues the following Enforcement Order:

**GENERAL FINDINGS**

1. Teller County Water & Sanitation District No. 1 ("Teller County WSD") owns and/or operates a drinking water system, located in the vicinity of 201 Paiute Trail, City of Woodland Park, Teller County, Colorado (the "System").
2. Teller County WSD is a person as defined by 5 CCR 1003-1, §1.5.2(98).
3. Teller County WSD is a supplier of water within the meaning of §25-1.5-201(2), C.R.S. and its implementing regulation, 5 CCR 1003-1, §1.5.2(128).
4. The System is a public water system as defined by §25-1.5-201(1), C.R.S. and its implementing regulation, 5 CCR 1003-1, §1.5.2(107).
5. The Public Water System Identification Number ("PWSID") assigned to the System by the Department is PWSID #: CO-0160600.
6. Pursuant to 5 CCR 1003-1, §1.2, the System is subject to the *Colorado Primary Drinking Water Regulations* (the "Regulations"), which were adopted pursuant to §25-1.5-203, C.R.S.
7. The Teller County WSD provides piped water for human consumption from the System to at least fifteen (15) service connections used by year-round residents of the area served by the System and/or regularly serves at least twenty-five (25) year-round residents. The System is therefore classified as a "community water system" as defined by 5 CCR 1003-1, §1.5.2(15).

8. The System's source of water is groundwater as defined by 5 CCR 1003-1, §1.5.2(63).
9. On August 11, 2009, a Division representative conducted a compliance inspection of the System, pursuant to the Division's authority under §25-1.5-204, C.R.S. and 5 CCR 1003-1, §1.7, to determine the System's compliance with the Regulations.

**Deficient Operation and/or Maintenance Practices**

10. Pursuant to 5 CCR 1003-1, §1.6.7(e), when the Department determines that a physical condition, or an operation or maintenance practice poses an unreasonable risk to the public health, the Department may issue an enforcement order.
11. In a letter dated June 18, 1998, the Division conditionally approved the Teller County WSD's submitted plans and specifications for the construction of a Granular Activated Carbon ("GAC") Adsorption System that was designed to remove Ethylene Dibromide (EDB) from the System's source water.
12. Pursuant to 5 CCR 1003-1, §2.1(b), the maximum contaminant level for EDB in the System's distributed water is 0.05 parts per billion.
13. The U. S. Environmental Protection Agency has found that the exposure to EDB above the maximum contaminant level has the potential to cause significant health effects; including damage to critical organs (liver, heart and kidneys), the respiratory system and the nervous system.
14. During the August 11, 2009 site visit of the System, the Division representative was advised by Don Murray (Operator in Responsible Charge) and Kent Brady (Teller County WSD Board Member) that the GAC Contactor #1, which was positioned in the GAC Adsorption System as the final "polishing" contactor, was rendered inoperable as a result of a July 24, 2009 event which involved a GAC contactor hose failure and backflow of Woodland Park water into GAC Contactor #1. The Teller County WSD representatives advised the Division that the GAC Contactor #1 underdrain system was damaged and GAC media was blown out of GAC Contactor #1. As a result of the event, the GAC contactor in position 3 (Contactor #1) of the GAC Adsorption System is no longer available to provide redundancy in the event of EDB breakthrough through the contactors in position 1 (Contactor #3) and/or position 2 (Contactor #2).
15. During the August 11, 2009 site visit of the System, Teller County WSD representatives stated that the GAC Adsorption System had been modified to remove a check valve which prevented the backflow of water into the GAC Adsorption System.

16. During the August 11, 2009 site visit of the System, Don Murray (Operator in Responsible Charge) and Kent Brady (Teller County WSD Board Member) advised the Division representative that Mr. Brady had access to the water treatment plant and the finished water storage tank. Upon discussion with Mr. Brady, the Division has concluded that in the past Mr. Brady has entered the plant, made adjustments to the plant and has left the entrances to the plant open at times. Mr. Brady has conducted these activities without consultation or supervision from the System's Operator in Responsible Charge (Don Murray). Mr. Brady is not a State of Colorado water treatment facility certified operator.
17. During the August 11, 2009 site visit of the System, the Division representative noted that there were insufficient operations records to demonstrate that the GAC Adsorption System was being operated and maintained in a manner to ensure reliable and consistent compliance with the EDB maximum contaminant level. The Division representative determined that there were no GAC Adsorption System operation records available for review and the operator log book at the plant contained no information regarding GAC contactor run times, GAC contactor sequence, GAC media age or EDB levels per GAC contactor. The Teller County WSD representatives were able to provide information regarding media age and GAC contactor operational sequence from memory only. The Teller County WSD representatives also stated that they believed that the records for the water system were in a resident's garage and thus were not available for Division review. In a subsequent conversation with Benson Smith (Treatment Technology, Inc.), the designated Administrative Contact for the System, the Operator in Responsible Charge (Don Murray) confirmed to him that the System records were located in a resident's garage and thus were not readily available.
18. During the August 11, 2009 site visit of the System and subsequently confirmed upon conversations with Benson Smith (Treatment Technology, Inc.), the Division representative noted that the individual GAC contactors were not sampled during the second quarter of 2009 to monitor potential breakthrough of EDB. Pursuant to the June 18, 1998 conditional approval for the System, the primary GAC contactor must be sampled and analyzed for EDB every 45 days. After the July 24, 2009 failure of GAC Contactor #1, the system was operating with GAC Contactor #3 and GAC Contactor #2 in series. Without proper EDB testing of the GAC contactors, the System operators are unable to determine if GAC Contactor #3 and GAC Contactor #2 will produce finished water which is in compliance with the EDB maximum contaminant level.
19. Division records establish that the System's finished water storage tank (a triangular concrete tank) remains out-of-service and inoperable. (*See attached letter, dated May 7, 2008, that describes tank conditions.*) The lack of finished water storage capacity limits the System's ability to provide safe water during upset conditions and to properly and safely flush the distribution system if contaminants are unexpectedly introduced.
20. The Division has determined that the operational and maintenance practices associated with the GAC Adsorption System that were observed and described during the August 11, 2009 site visit and in subsequent conversations with the Operator in Responsible Charge pose an unreasonable risk to the public health.
21. The Division has determined that the operational and maintenance practices associated with the out-of-service and inoperable finished water storage tank pose an unreasonable risk to the public health.

## COMPLIANCE REQUIREMENTS

Based upon the foregoing factual and legal determinations and pursuant to 5 CCR 1003-1, §1.6.7(e), the Teller County WSD is hereby ordered to comply with the following specific terms and conditions of this Enforcement Order:

22. Teller County WSD shall immediately use and/or maintain the use of supplied water from the City of Woodland Park until the Division has acknowledged in writing that the Teller County WSD has satisfactorily demonstrated to the Division that the GAC Adsorption System has been functionally assessed, repaired (as applicable), conforms with the Division-approved design plans and specifications and that the treatment system is operated and maintained in a manner to reliably and consistently produce water below the EDB maximum contaminant level.
23. In order to ensure reliable and consistent compliance with the EDB maximum contaminant level, Teller County WSD shall evaluate and upgrade, as needed, the System's GAC Adsorption System and the finished water storage tank in accordance with the following schedule:
  - a) By no later than September 30, 2009, retain a qualified Professional Engineer (*licensed in Colorado and experienced in drinking water carbon adsorption systems*) to evaluate the operational and physical condition of the constructed GAC Adsorption System, the finished water storage tank and to certify that the GAC Adsorption System has not been modified from the original plans and specifications approval (June 18, 1998). The evaluation should specifically include, but not be limited to, the physical and functional evaluation of the GAC contactor that was damaged during the July 24, 2009 event, an evaluation of the other two GAC contactors and the condition and suitability of the carbon media presently in use. The structural/sanitary integrity of the finished water storage tank, necessary repairs or improvements and its suitability for return to service must also be evaluated and reported to the Division.

*(Note: If the Teller County WSD desires to utilize carbon media other than what was approved in the June 18, 1998 plans and specifications approval, the media specifications must be submitted to the Division for review and approval prior to installation and use. Additionally, any changes to piping or modifications to the treatment processes must be submitted to and approved by the Department. A Professional Engineer registered in the State of Colorado shall design all treatment systems serving a community water supply.)*

- b) By no later than October 7, 2009, Teller County WSD shall provide documentation to the Division that it has retained the services of the qualified Professional Engineer identified in paragraph 23(a). This documentation shall include at, a minimum, a copy of the written contract or agreement for such services that outlines the scope of services to be provided.

- c) By no later than November 1, 2009, Teller County WSD shall submit in writing to the Division a final report on the findings of the evaluation identified and outlined in paragraph 23(a) above. Along with the findings of the evaluation, the report must identify actions taken or to be taken to ensure the proper operation and maintenance of the GAC Adsorption System and that the finished water storage tank is replaced or rehabilitated to current design criteria and returned to service. For actions to be taken, Teller County WSD shall also submit a time schedule for completion of each action. The actions and time schedule submitted shall become a condition of this Enforcement Order, and Teller County WSD shall implement the actions and time schedule as submitted unless notified by the Division, in writing, that alternate actions and/or time schedules are appropriate. If the Division imposes alternate actions and/or time schedules, they shall also become a condition of this Enforcement Order.
24. Prior to the GAC Adsorption System being returned to service, the Teller County WSD shall install a check valve or other appropriate backflow prevention device on the effluent piping of the GAC Adsorption System to prevent backflow of water into the GAC Adsorption System. Upon installation, the Teller County WSD shall provide written notice to the Division that the check valve or other appropriate backflow prevention device has been properly installed.
25. Teller County WSD shall immediately begin recording in a field logbook operational- and maintenance-related information on the GAC Adsorption System. Such information should include, but not be limited to the following: Daily identification of the wells online and their respective production rate, daily record of the GAC contactors online, daily GAC contactor sequence, daily GAC contactor hydraulic loading rate, total gallons of water treated each day, daily condition of the GAC contactor hoses and any abnormal observations pertaining to the GAC contactors. The following items should also be recorded on a periodic basis: Results of well EDB results, GAC contactor EDB and finished water EDB sampling results, GAC contactor media inspections and evaluations, GAC contactor hose repairs, GAC contactor media replacement (including the media specification), GAC contactor vessel condition, repair and maintenance activities, GAC contactor underdrain condition, repair and maintenance activities.
26. Pursuant to 5 CCR 1003-1, §1.6.2 and in order to ensure proper operational control of the System's GAC Adsorption System, the Teller County WSD shall immediately begin performance testing as outlined below.
- a) At least once per calendar quarter, and generally at the same time that the System's routine compliance EDB samples are collected, collect a raw water sample from each individual well in operation during the calendar quarter. These samples must be analyzed for the concentration of EDB. For reporting purposes these samples and their respective locations should be identified and reported as "Well 8R - Raw Water" and "Well 9R - Raw Water."
- b) At least once per calendar quarter, and generally at the same time that the System's routine compliance EDB samples are collected, collect a representative sample of the combined well water entering the GAC Adsorption System. This sample should be representative of the influent water entering the GAC Adsorption System from the use of combined well sources. This sample must be analyzed for the concentration of EDB. For reporting purposes this sample should be identified and reported as GAC Adsorption System – Combined Well Influent or "CWI."

- c) At least once per calendar quarter, and ideally at the same time that the System's routine compliance EDB samples are collected, collect a water sample from the effluent water leaving each GAC contactor in operation during the calendar quarter. These samples must be analyzed for the concentration of EDB. For reporting purposes the sample locations should correspond to the position of the GAC contactor in the treatment series and be consistently identified as GAC Contactor - Position 1 Effluent (P1E) or GAC Contactor - Position 2 Effluent (P2E), ...etc. It is expected that the Teller County WSD will rotate the GAC contactor sequence to ensure that the GAC contactor in the best condition (considering media and run time) is positioned as the final, last in series, polishing GAC contactor.
- d) Routine compliance monitoring requires the Teller County WSD to collect an EDB sample at the entry point to the distribution system at least once per calendar quarter, therefore, the entry point sample for routine compliance monitoring can also serve as the water sample from the final, last in series, polishing GAC contactor. This sample should be identified as a routine compliance monitoring entry point sample as well as a GAC Contactor effluent sample pursuant to paragraph 26(c) above.

Samples collected pursuant to the performance testing requirement specified above must be properly collected and analyzed by a Department-certified laboratory in accordance with approved methods. The Teller County WSD shall provide the Department with the results of any performance testing analyses within ten (10) calendar days of receipt of the results from the laboratory. At a minimum, each reported sample result shall clearly identify the sample location (as specified above), the person's name who collected the sample and the date and time that the sample was collected along with the sample EDB concentration. The above performance testing must be performed under the supervision of the Operator in Responsible Charge.

- 27. Consistent with 5 CCR 1003-2, §§100.16, 100.17 and 100.21, the Teller County WSD shall immediately ensure that the System is operated under the direct supervision of an Operator in Responsible Charge certified at a C treatment system and a 1 distribution system classification or higher. "Direct Supervision" means that the operator in responsible charge has supervisory responsibility and authority with respect to the activities and functions of other facility operators. Additionally, the Teller County WSD shall immediately ensure that the Operator in Responsible Charge has the responsibility and authority to perform or supervise all tasks pertinent to controlling the operation of the System, including but not limited to the following:
  - a) The management or administration of the water facility;
  - b) The charge, commission, or duty to comply with applicable regulations and requirements for proper operation of the water facility;
  - c) The accountability for the proper operation and maintenance of the water facility;
  - d) The control of, supervision over, or active participation in the daily planning, operation or maintenance of the water facility;
  - e) Authority and/or power to make day-to-day decisions on the operation and maintenance of the water facility; or

- f) The capacity and availability to perform the above as well as other functions of direct responsibility, such as those enumerated in 5 CCR 1003-2, §100.16.2 and outlined below:
- i) Controlling the selection of or flow from a source to the treatment and/or distribution systems;
  - ii) Controlling the processing of raw, treated and finished water;
  - iii) Preparing and/or controlling chemical addition for water treatment;
  - iv) Observing and taking necessary actions in response to variations in operating conditions;
  - v) Interpreting meter and/or gauge readings and adjusting facility processes based on such interpretations;
  - vi) Operating valves and/or gates either manually or by remote control;
  - vii) Starting and/or stopping pumps;
  - viii) Maintaining logs and/or records;
  - ix) Collecting and/or analyzing process control samples;
  - x) Ensuring proper inspection and testing of new, modified or repaired facilities prior to permitting these facilities to be put into or returned to service;
  - xi) Developing and implementing preventative maintenance programs and performing routine maintenance functions for facilities; or
  - xii) Overseeing compliance with laws and regulations and reporting as appropriate to facility owners and the Department.
28. Within thirty (30) calendar days after receipt of this Order, the Teller County WSD shall submit a written certification to the Division stating that the Teller County WSD has established that the System is operated under the direct supervision of an Operator in Responsible Charge as specifically outlined in paragraph 27 above.
29. Within thirty (30) calendar days after receipt of this Order, the Teller County WSD shall review the public notice regulations found in 5 CCR 1003-1, Article 9, specifically including the violation categories and other situations requiring a Tier 1 public notice and the Department consultation requirements found in 5 CCR 1003-1, §9.2.2. Within forty five (45) calendar days of receipt of this Order, the Teller County WSD shall submit to the Division a written statement certifying that the Teller County WSD and its responsible individuals and System operators have reviewed and understand the public notice requirements established in 5 CCR 1003-1, Article 9.
30. Within sixty (60) calendar days after receipt of this Order, the Teller County WSD shall review and update its Standard Operating Plan to reflect the System's current configuration, treatment and operations. By no later than November 1, 2009, the Teller County WSD shall provide the Division with a copy for review and approval of its revised and updated Standard Operating Plan.
31. Within sixty (60) calendar days after receipt of this Order and in accordance with 5 CCR 1003-1, §1.12.3, the Teller County WSD shall review and revise its monitoring plan to reflect the System's current configuration, treatment, operations and monitoring requirements. By no later than November 1, 2009, the Teller County WSD shall provide the Division with a copy of its revised and updated written monitoring plan.

## **NOTICES AND SUBMITTALS**

32. For all documents, plans, records, reports and replies required to be submitted by this order, the Teller County WSD shall submit an original and one copy (electronic is preferred) to the Division at the following address:

Colorado Department of Public Health and Environment  
Water Quality Control Division / WQCD-WQP-B2  
Compliance Assurance and Data Management Section  
Attention: Lauren Worley  
4300 Cherry Creek Drive South  
Denver, Colorado 80246-1530  
Email: lauren.worley@state.co.us  
Fax: (303) 782-0390

*(For any facsimile transmittals, please include a cover sheet addressed to Ms. Worley.)*

33. Pursuant to 5 CCR 1003-1, §1.6.4(e), all reports, notices, summaries, and certifications required to be submitted to the Department by the public water system must bear the original signature of the owner or the owner's authorized representative.

## **NOTICE OF COMPLETION**

34. The Teller County WSD shall submit a Notice of Completion to the Division upon satisfactory completion of all requirements of this Enforcement Order. The Division shall either accept or reject the Notice of Completion in writing. If the Division rejects the Notice of Completion, it shall include in its notice a statement identifying the requirements that the Division considers incomplete or not satisfactorily performed and a schedule for completion. If the Teller County WSD wishes to dispute the Division's rejection of its Notice of Completion, it shall, within fifteen (15) calendar days of receipt of the Division's rejection, submit a written statement as to its belief of full compliance, addressing in detail all concerns the Division raised in the rejection letter to the System's Notice of Completion.

## **PRIOR APPROVAL REQUIRED**

35. Pursuant to 5 CCR 1003-1, §1.11.2, no person shall commence construction of any new waterworks, or make improvements to or modify the treatment process of an existing waterworks, or initiate use of a new source, until plans and specifications for such construction, improvements, modifications or use have been submitted to, and approved by the Department. A Professional Engineer registered in the State of Colorado shall design all treatment systems serving a community water supply. The Department shall grant such approval when it finds that the proposed facilities are capable of complying, on a continuous basis, with all applicable laws, standards, rules and regulations.

**POTENTIAL ADMINISTRATIVE/CIVIL AND CRIMINAL PENALTIES**

36. You are also advised, pursuant to §25-1-114.1, C.R.S., that violators of the Regulations or final Enforcement Orders issued by the Department are subject to civil or administrative penalties of up to one thousand dollars (\$1,000) per violation per day, to be imposed by the Department or a State District Court. Further, pursuant to §25-1-114(4), C.R.S., any person, association, or corporation, or the officers thereof, who violates, disobeys, or disregards any provision of the Regulations or an Enforcement Order is guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine of not more than one thousand dollars (\$1,000), or by imprisonment in the county jail for not more than one (1) year, or by both such fine and imprisonment and, in addition to such fine and imprisonment, shall be liable for any expense incurred by health authorities in removing any nuisance, source of filth, or cause of sickness. By virtue of issuing this Enforcement Order, the Department has not waived its right to bring an action for administrative, civil or criminal penalties and may bring such action in the future.

**REQUEST FOR HEARING OR APPEAL**

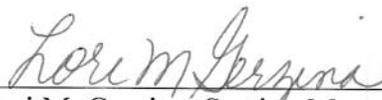
37. You are further advised, pursuant to 5 CCR 1003-1, §1.6.7(g), that a recipient of an Enforcement Order may request a hearing contesting such order. Requests for such a hearing shall be filed in writing with the Department within thirty (30) calendar days after service of the order. Such requests shall state the grounds upon which the order is contested and state the amount of time the recipient estimates will be required for the hearing. Hearings on Enforcement Orders shall be held in accordance with applicable provisions of the State Administrative Procedure Act, Article 4 of Title 24, C.R.S.

**ADDITIONAL ACTION**

38. You are further advised that under §25-1-114.1(1), C.R.S., the Department may institute a civil action against any person who violates a final Enforcement Order of the Department issued for violation of any minimum general sanitary standard or regulation adopted pursuant to §25-1.5-203, C.R.S.
39. Additionally, the Department may request the Attorney General to seek a temporary restraining order or permanent injunction to prevent or abate any violation of a minimum general sanitary standard or regulation adopted pursuant to §25-1.5-203, C.R.S. Further information concerning the aforementioned action is contained in §25-1-114.1(3), C.R.S.

Issued at Denver, Colorado, this 17<sup>th</sup> day of August, 2009.

**FOR THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT**



Lori M. Gerzina, Section Manager  
Compliance Assurance Section  
Water Quality Control Division

# STATE OF COLORADO

Bill Ritter, Jr., Governor  
James B. Martin, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

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Colorado Department  
of Public Health  
and Environment

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**Water Quality Control**

May 7, 2008

Mr. Dave Stanford  
Teller County Water and Sanitation District (WSD)  
P. O. Box 1905  
Woodland Park, CO 80866

Subject: Storage Tank Site Visit of Community Water System; Teller County WSD (PWSID No. CO0160600); Teller County

Dear Mr. Stanford:

On April 23, 2008, the Water Quality Control Division (the "Division") conducted a site visit to review the condition of the water system's concrete storage tank. This site visit was in response to the recent Boil Order that was issued to Teller County WSD due to the discovery of dead rodents in the storage tank. At the time of the visit, the Division also reviewed several documents from your file on the water system as well as several photographs.

The following observations were noted during the site visit:

- This storage tank is in poor condition (see attached photos). The flashing around the concrete wall and the roof has separated in many places. The vent on the roof is not screened and is not the correct kind of vent for a storage tank. The general structural quality of the tank is poor. The walls are bulging in several places and the tank appears to be sliding off the hill it is resting on. While the internal condition of the tank is fair, there is a leak in the wall where the cold pour was performed as evidenced by the tank losing several feet of water within a few days of being isolated from the system. While there is little concern about water leaking out of a tank, infiltration into a tank is of high concern, as this water can contaminate the water supply. There were settled solids on the floor of the tank. One of the support beams is heavily corroded. The structural support columns in the tank are spalling in places due to the possible shift of the tank laterally. The screen on the overflow is not durable #24 stainless steel mesh. The observation hatch is not watertight. The roof hatch is not watertight. The roof is unstable and is sagging in several places. The roof does not provide a waterproof seal for the tank. A design was approved May 2, 1978 by Earl Balkum of the Department for a leak proof roof. It does not appear that this design was implemented. The wooden retaining wall located about 8 feet from

Mr. Dave Stanford

Teller County Water and Sanitation District (WSD)

May 7, 2008

Page 2

the northwest corner of the storage tank is rotting and buckling and it was noted that the north wall has already been shored up once to prevent buckling.

The tank inspection report from 2006 made note of the structural condition and also noted dead rodents in the tank at that time. The Division should have been notified of the sanitary conditions of the tank from the inspection.

The Division is hereby requiring that this storage tank no longer be used unless the following condition is met:

- The tank must be repaired to correct the observations noted and bring the tank into compliance with the State of Colorado Design Criteria for Potable Water Systems.

The Division has the following recommendations:

- Valving off the distribution system will help prevent contamination. However, should the tank continue to slide off the hill, it could eventually cause major damage to the distribution system. The tank should be physically removed from the water system by cutting the water main and putting a blind-flange on the main.

In addition to the findings with the concrete tank, the steel storage tanks that were previously being used by the District should not be brought back into service. The Division does not allow storage tanks that may have once contained petroleum based products or other hazardous chemicals to be used for storing potable water. The price list provided by the Eaton Metal Products Company indicates that the tanks may have at one time contained a petroleum based product or at least were designed for holding oil rather than potable water. The Division recognizes the fact that these steel storage tanks have been in service for at least 30 years. However, now that they have been uncovered by the District for maintenance and the questionable origin noted, the tanks should not be placed back into service.

The District is currently relying on its wells to supply water to the District with chlorine contact time provided by a contact pipe. While this is an approved method for contact time, it leaves the District without any storage for peak demand or fire flows.

The District has several options to address the fire flow issue. All of these should be reviewed with your consulting engineer. The first option is to build a new storage tank. Loans are available from the State Revolving Fund to replace aging infrastructure. There are also loans available for consolidation. It is advisable that given the proximity to the City of Woodland Park, that you consider consolidating with the City. Another option is the "no action" alternative, but peak demands may put undue stress on the wells and in the event of a fire, the District will have to rely on the City of Woodland Park for protection. The final option is to repair and upgrade the existing storage tank.

Should the District affect repairs, please do so under the supervision of an engineer registered in the State of Colorado as design criteria must be considered in the effort. Please contact us should you decide to use the tank again, or to consult with us on the other options available to the District.

Mr. Dave Stanford

Attachment A: Drinking Water Enforcement Order, Number: DC-090817-1

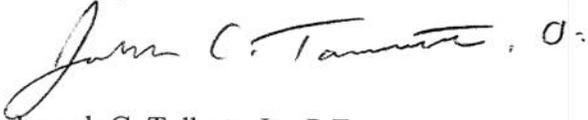
Teller County Water and Sanitation District (WSD)

May 7, 2008

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If you have any questions, please contact me at 719-545-4650 ext. 21. Thank you for your time and cooperation.

Sincerely,



Joseph C. Talbott, Jr., P.E.

Engineering Section

Water Quality Control Division

Colorado Department of Public Health and Environment

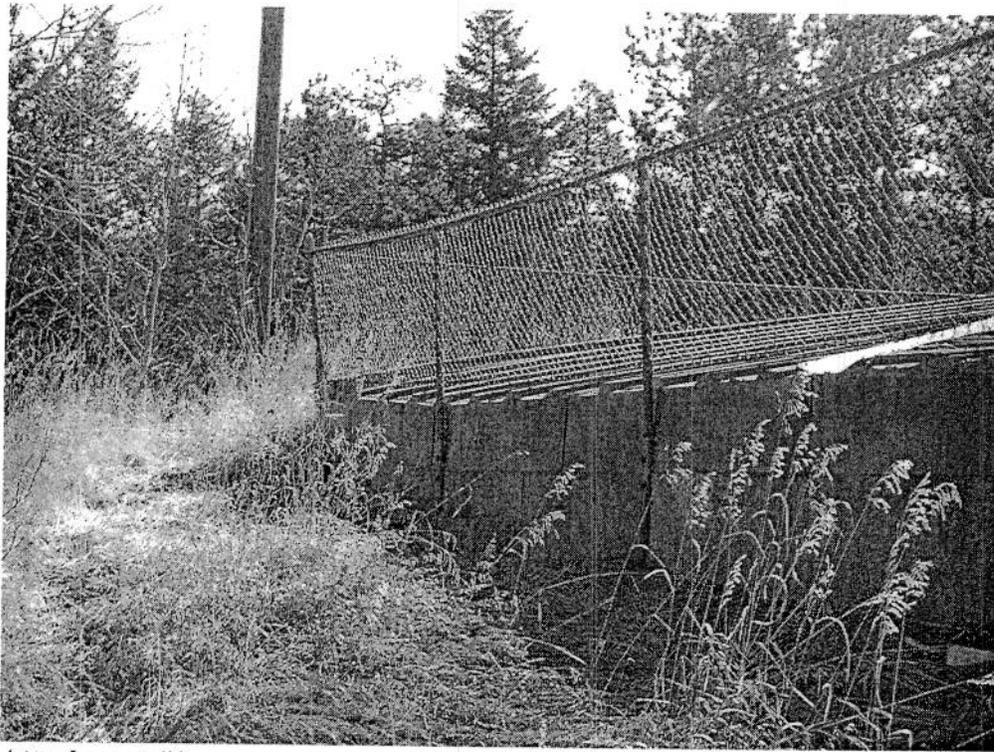
Attachments: Pictures of Tank

cc: Kurt Dahl, Teller County Environmental Health Department  
✓ Erica Kannely/DW File, Compliance Assurance & Data Mgmt., WQCD-Denver  
Betsy Beaver, Water Quality Protection Section, WQCD-Denver

jct

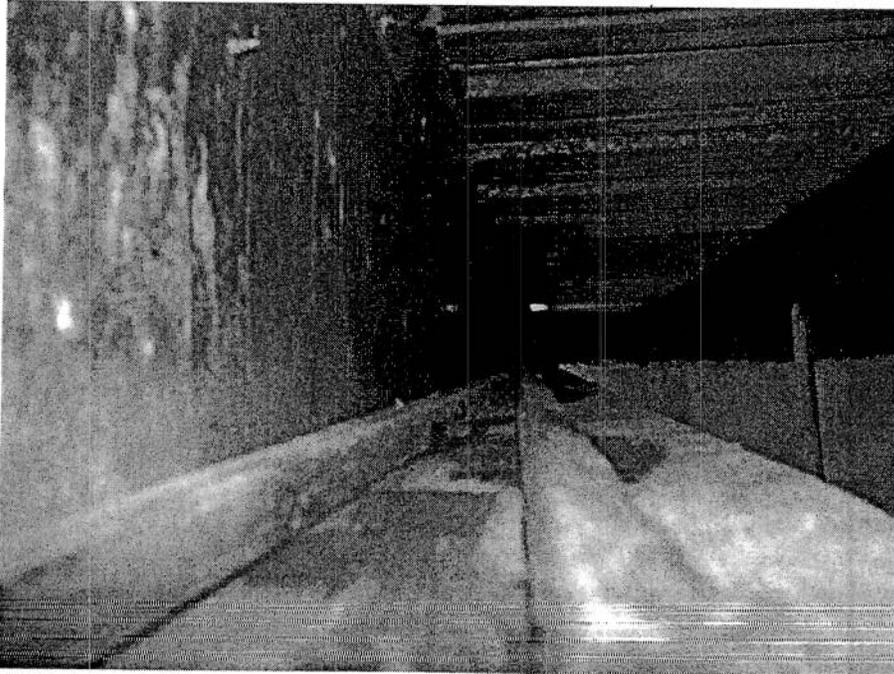
**Attachments**

Attachment A: Drinking Water Enforcement Order, Number: DC-090817-1



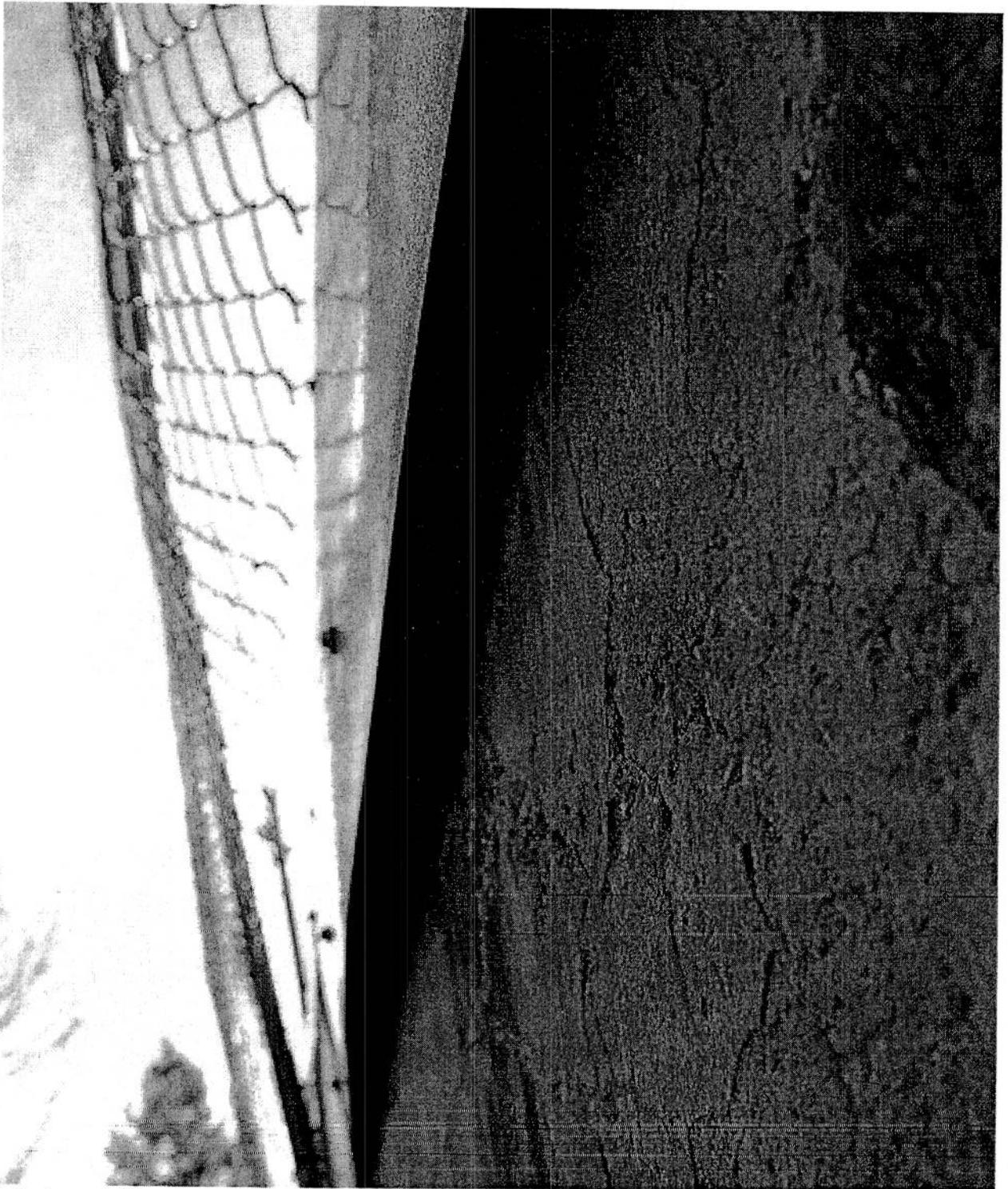
**Attachment #1**

**Attachment Comments:** The northwest corner of the storage tank is buckling out as can be noted by the irregular bulging of the metal flashing and the uneven fence line. The bulging can probably be attributed to the tank's gradual northwestern movement due to erosion of the hillside that it is on.



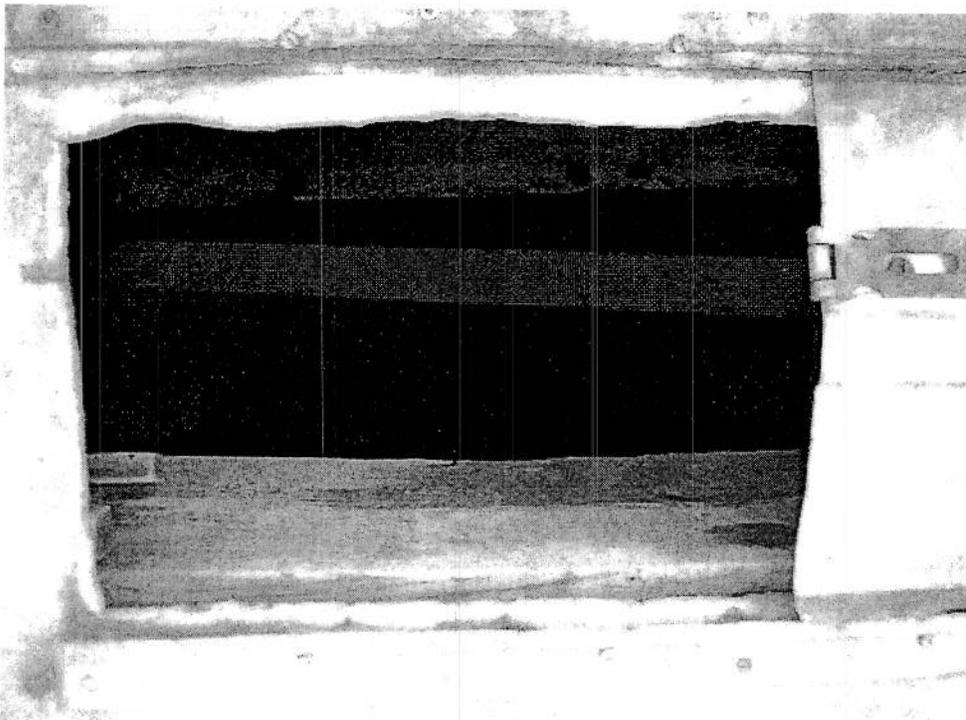
**Attachment #2**

**Attachment Comments:** This picture was taken inside the tank. Daylight can be seen towards the center of the picture. The tank is not sealed to prevent pests and dust.



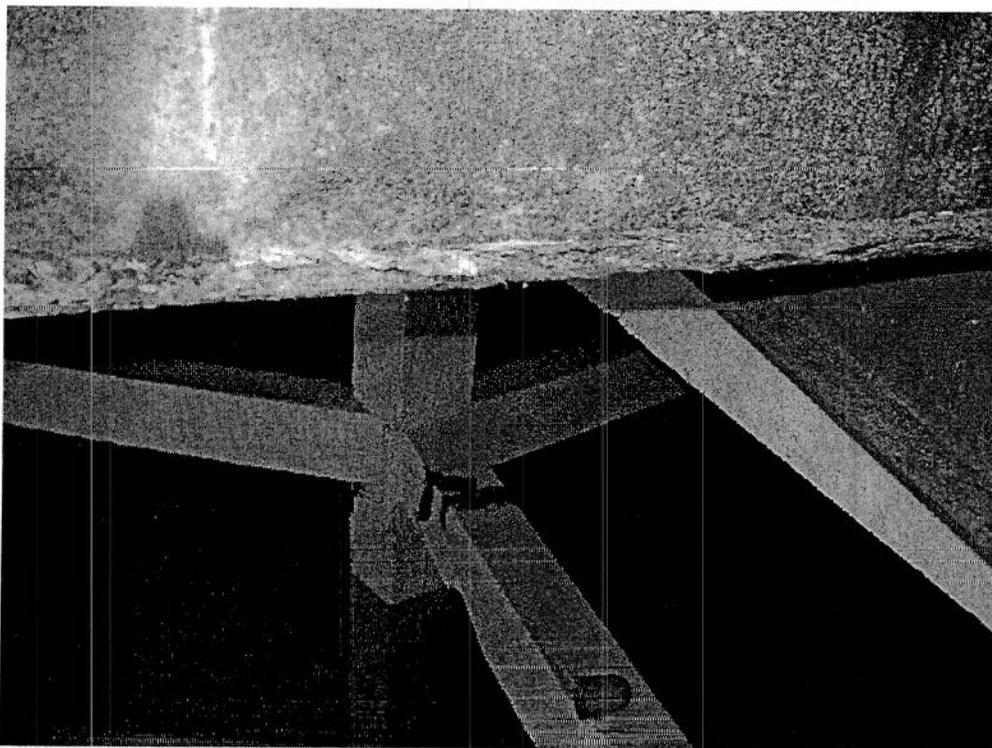
**Attachment #3**

**Attachment Comments:** This gap in the flashing is about 1.75" as measured. I was able to place my hand in the hole and over the top of the wall. This is a possible ingress for rodents.



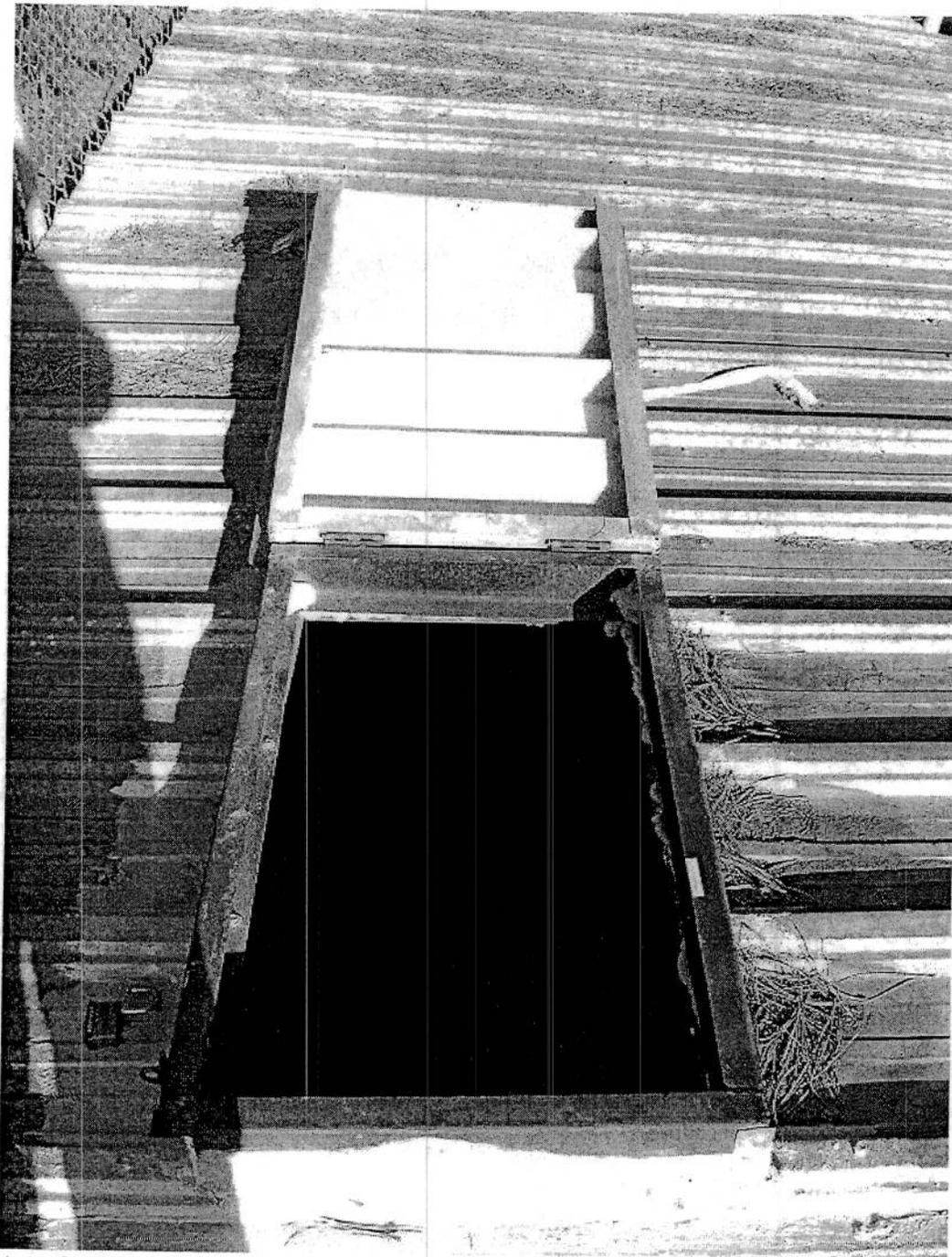
**Attachment #4**

**Attachment Comments:** This access port for visual inspections in the side of the tank is a piece of sliding sheetmetal that has been damaged from use. It is not a good seal against the elements.



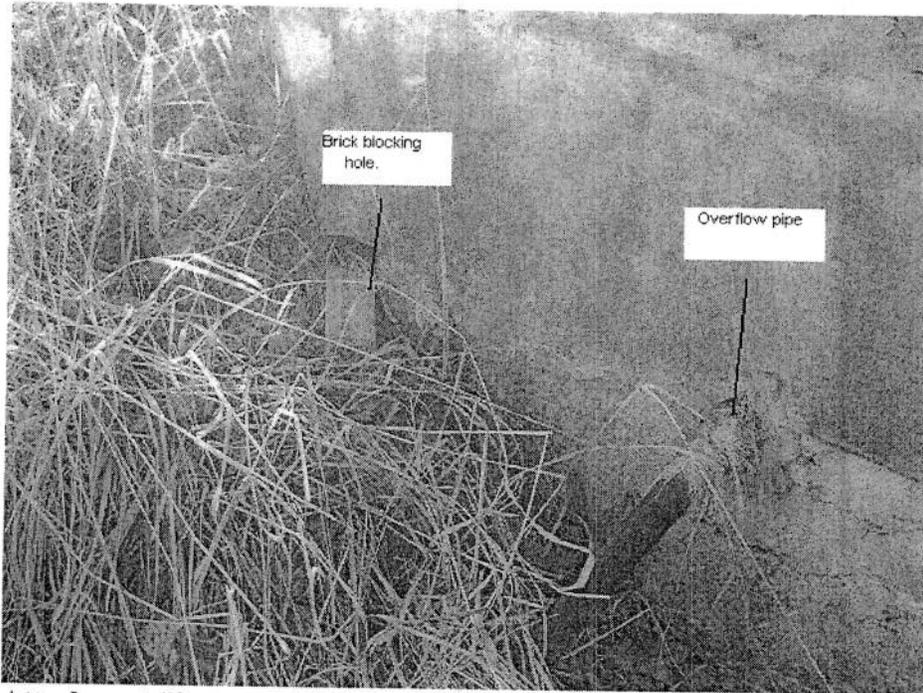
**Attachment #5**

**Attachment Comments:** The center support beam of the tank roof is spalling near where it attaches to the column. Pieces of the concrete have flaked off. This is probably due to torsional stress applied to the beam from the northwest tank wall separating from the rest of the structure at a slow rate.



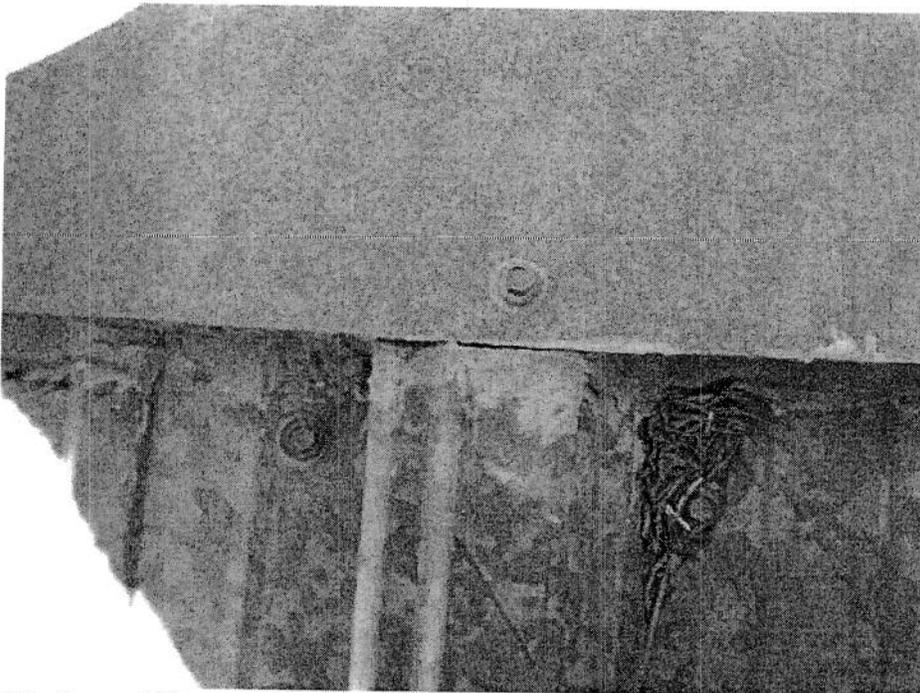
**Attachment #6**

**Attachment Comments:** This access hatch does not meet any Design Criteria requirements. The hatch does not overlap, it is not true, the seal around the roof penetration is not impervious to water, and there is no seal on the hatch itself to identify the major deficiencies. It can be observed where the pine needles are on the right side of the hatch that standing water and debris are a concern.



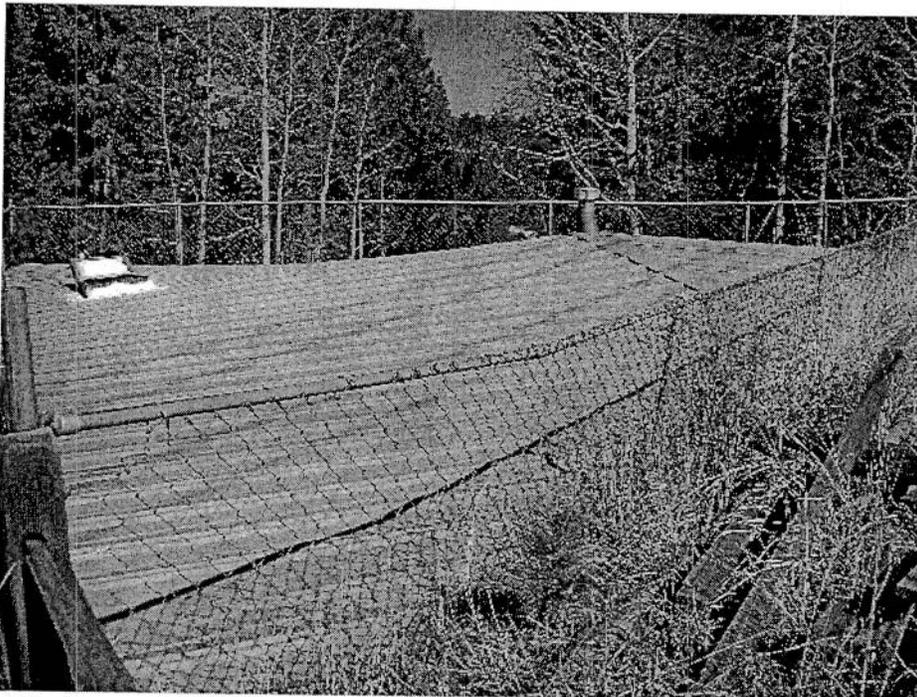
**Attachment #8**

**Attachment Comments:** The brick blocking the hole in the northwest corner of the tank is not an adequate repair for keeping rodents and insects from gaining access to the tank. The eroding soil near the whole can also be introduced into the tank. The soil should be cleared from around the wall of the tank, so that the tank can be repaired and to prevent damage from erosion.



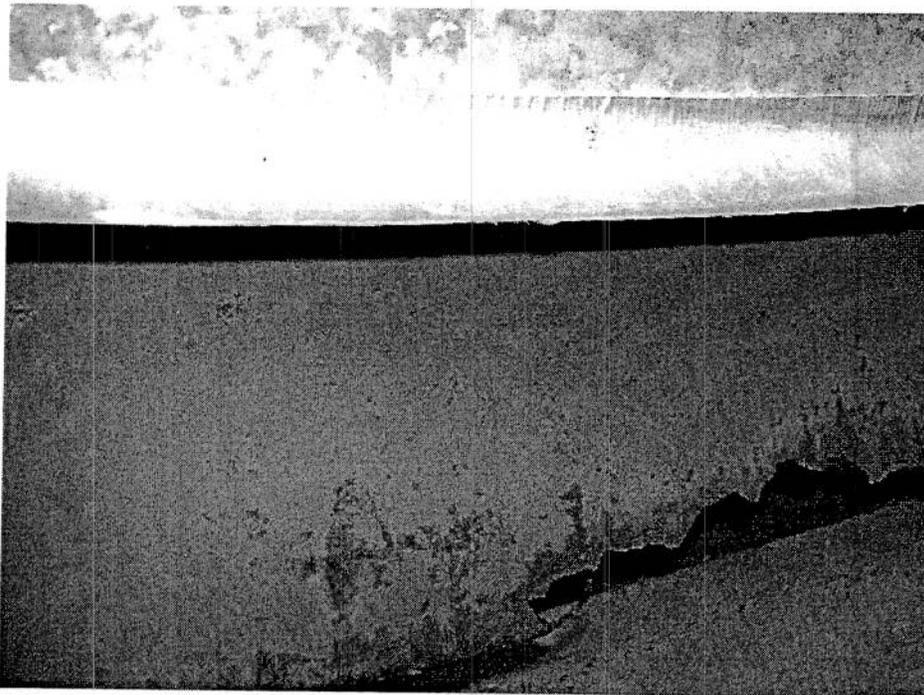
**Attachment #9**

**Attachment Comments:** The sealant on the roof is drying out and separating.



**Attachment #10**

**Attachment Comments:** This picture shows the general poor condition of the tank. The fence is in poor shape, the roof is sagging in several places. Also, the soil butts up against the wall of the tank and overlaps the roof on the southern wall of the tank. It is possible for burrowing animals to get through this part of the tank and under the flashing.



**Attachment #11**

**Attachment Comments:** This support beam for the roof exhibits signs of severe corrosion. Approximately 20% of the height has been lost. Rust is common on the beams, but this is by far the beam in the worst condition.