

FRAME & SMETANA, P.A.

CONSULTING ENGINEERS

603 North 4th Street

Phone (208) 664-2121 - Fax (208) 765-5502

COEUR D'ALENE, IDAHO 83814

WA
RECEIVED

FEB 16 2010

**DEPARTMENT OF
WATER RESOURCES**

February 12, 2010

Emalee Rushing
Office Services Supervisor
State of Idaho, Department of Water Resources
P. O. Box 83720
Boise, Idaho 83720-0098

RE: LAPSED PERMIT NO. 95-9395

Dear Ms. Rushing:

At the request of Dan Crane, Interim Facilities Director, Kootenai Medical Center, I am submitting this response to your letter to Gordon Bronson dated December 29, 2009. Pursuant to Section 42-218a(2), Idaho Code, attached is the following evidence which establishes beneficial use during the time the permit was active:

- 1) Letter from Gary Gaffney, P.E., IDEQ, dated July 30, 2009, acknowledging that submittals, certifications, and initial system start-up have been completed and approved.
- 2) Letter from Jean Felker, IDEQ dated December 18, 2009, with a drinking water supply report for PWS #1280326.
- 3) Email dated February 5, 2010 from Dan Crane to me which documents meter readings for well water usage between March 25, 2009 and August 19, 2009.

Pertaining to condition number 12 of the permit, attached is the summary of water consumption from October 2007 through October 2009 showing the total volume of water delivered from the City of Coeur d'Alene water system.

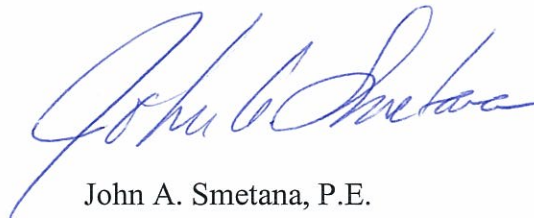
The primary reason for the delay in filing the Proof of Beneficial Use was due to efforts to comply with the IDEQ regulations as required in condition number 11 of the permit. As noted, the attached PWS report is dated December 18, 2009. Because the findings of the PWS survey may have lead to system modifications, we deemed it appropriate to review the report prior to filing proof. We acknowledge miscommunication amongst our team members resulted in the missed opportunity to file a request for a time extension.

Emalee Rushing
February 12, 2010
Page 2

With this submittal, I believe the response to the conditions in your letter has been satisfied. On behalf of the permit holder, I request the processing of the submitted proof statement continue. Given the circumstances with IDEQ review and approval timing, I believe consideration should be given to reinstating the permit with the initial priority date.

Thank you for your assistance in this matter. Please contact me if you have any questions or need additional information.

Yours truly,



John A. Smetana, P.E.

JAS:gg
Enclosures
xc: Dan Crane, with enclosures



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

2110 Ironwood Parkway • Coeur d'Alene, Idaho 83814 • (208) 769-1422

C.L. "Butch" Otter, Governor
Toni Hardesty, Director

July 30, 2009

Gordon Bronson, Director of Facilities
Kootenai Medical Center
2003 Lincoln Way
Coeur d'Alene, ID 83814
gbronson@kmc.org

RE: Kootenai Medical Center (KMC) – Emergency Drinking Water System (PWS#1280326)

Dear Mr. Bronson:

On April 14, 2009 Jack Smetana, P.E. with Frame and Smetana Consulting Engineers submitted to this office the following items related to completion of the emergency and irrigation water system serving Kootenai Medical Center in Coeur d'Alene:

- A copy of the Well Drillers report (well log) reflecting completion of drilling of the 12-inch diameter 360-foot deep ground water well. The report needs to be filed with IDWR.
- A site plan for the new well showing the 50-foot radius well lot around the well. We did not receive a detail as-built drawing for the completed well as requested.
- Test pumping results by H2O Well Service dated 3/28/2009 indicating the well was test pumped for 4 hours with a sustained discharge of 310 gallons per minute (gpm) and a 7.6-foot drawdown. This means the well is rated at a capacity up to 200 gpm (two thirds of the short-term test pumping discharge). It was determined previously that the hospital would need up to 180 gpm to be supplied by this well to supply drinking water to the hospital. A 50 gpm irrigation demand was also desired from the well resulting in the design of two submersible pumps for the well.
- One coliform bacteria test result from March 30, 2009 indicating the absence of total coliform and E. coli bacteria. Two consecutive satisfactory bacteria results are required before the system serves the public.
- Results for Nitrate (Not detected) and Arsenic (0.005mg/l) from a March 30, 2009 sample. These are acceptable.
- Results from an iron sample showing 1.81 mg/l concentration. We suggest resampling the well at least two more times after it has been in use for some time to verify the initial iron concentration. Since the recommended concentration without treatment for iron is 0.3 mg/l, it may be necessary to treat the water for removal of iron. We suspect the concentration might drop after the well is used for some time.

On August 28, 2008 this office approved construction plans and specifications for drilling the 12-inch diameter well; equipping the well with two submersible pumps (50 gpm for irrigation and 180 gpm for emergency hospital water supply); well controls; and for construction of 120 feet of 4-inch diameter C-900 PVC water main extending to the outside of the nearby KMC building. The transmittal letter from John Smetana P.E. dated April 14, 2009 certified all of this work had been completed. Therefore, the record drawing certification requirements for these components have been satisfied.

RE: Kootenai Medical Center (KMC) – Emergency Drinking Water System (PWS#1280326)

July 30, 2009

Page 2

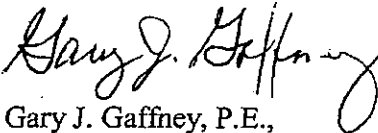
On March 28, 2009 this office approved construction plans and specifications prepared by Coffman Engineering for the water distribution main located in the Kootenai Medical Center building from the well discharge main to the location where the supply from the new well connects into the city drinking water supply main.

These drawings called for installation of a pressure relief valve, 4-inch water meter, pressure switch, and pressure tank where the discharge line from the new well enters the east side of the KMC building. From this location the drawings called for installation of a 4-inch diameter emergency water main (ECW) through the building basement to the southwest side of the building where water softening units and water heaters are located. A reduced pressure backflow preventer is shown as installed on this system at this location presumably to protect discharge of water from the new system out into the City of Coeur d'Alene water system.

To date we have not received record drawings from the inspecting engineer or any other written as-built certification that the valving and distribution main inside the building was completed in compliance with the approved plans and specifications. Submittal of these record drawings needs to be done as soon as the work is completed and should finish DEQ plan and specification approval responsibilities.

After these final record drawings are accepted by DEQ, we may contact your water system operator and you to arrange for a sanitary survey of the completed emergency drinking water system serving the hospital. Our interest is to ensure that there are no cross-connections risks to the city or emergency hospital water systems, and that you continually monitor the safety of the water being supplied by the emergency drinking water system so that it can be activated quickly when the need arises.

Sincerely,



Gary J. Gaffney, P.E.,

Gary.Gaffney@deq.idaho.gov

c: Jack Smetana, jsmetana@adelphia.net
Jim Markley, JIMM@cdaid.org
Gordon Dobler, gdobler@cdaid.org
Suzanne Scheidt, Suzanne.Scheidt@deq.idaho.gov
(#10924, Plans at P-4, New PWS file KMC in CdA)



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

2110 Ironwood Parkway • Coeur d'Alene, Idaho 83814 • (208) 769-1422

C.L. "Butch" Otter, Governor
Toni Hardesty, Director

December 18, 2009

Mr. Gordon Bronson,
Director of Facilities
Kootenai Medical Center
2003 Lincoln Way
Coeur d'Alene, ID 83814

Re: **Sanitary Survey of PWS #1280326 Kootenai Medical Center Water System**

Dear Mr. Bronson:

Thank you for your assistance in conducting the inspection of the Kootenai Medical Center water system on November 20, 2009. We found that the water system was well built, properly maintained, and mostly in compliance with the Idaho Rules for Public Drinking Water Systems. It will continue with its **approved** designation.

No significant deficiencies were identified at the time of the survey; however the following additional requirements must be met. Please correct the following additional requirements within 45 days and provide written confirmation to the Department that these items have been addressed.

Requirements to be Corrected

1. Provide verification of the cross connection control utilized between the potable water supply and the water supply serving the boilers.
2. Provide verification of the cross connection control utilized between the potable water supply and the water softener equipment and softened water supply.

Follow up Items

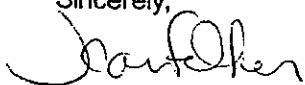
1. Financial and Managerial forms are included with this report. Please complete and return within 45 days.
2. The Department does not have a copy of the Kootenai Medical Center water system's total coliform sample plan. Please provide a copy to our office for the file.

Recommendations:

1. The Department recommends the valves in distribution be exercised annually; any dead end distribution mains must be flushed every six months.

If you have any questions regarding this survey, please do not hesitate to contact the DEQ in Coeur d'Alene. We are located at 2110 Ironwood Parkway; phone 208 769-1422.

Sincerely,


Jean Felker
Drinking Water Analyst

IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY
DRINKING WATER SUPPLY REPORT
2009

PWS NUMBER: ID1280326

SYSTEM: **KOOTENAI MEDICAL CENTER WATER SYSTEM**

OWNERSHIP: Kootenai Medical Center

INFORMATION OBTAINED FROM: Gordon Bronson

LOCATION: Kootenai Medical Center, Coeur d'Alene, Idaho.

COUNTY: Kootenai County

Nontransient/Noncommunity Water System

INSPECTORS: Jean Felker & Mike Camin

DATE OF SURVEY: November 20, 2009

FIELD SURVEY DATA

The Kootenai Medical Center water system is a nontransient / noncommunity water system serving as an emergency back up water system installed by Kootenai Medical Center (KMC) as a back up source of potable water in the event the Coeur d'Alene municipal public water system is unavailable or compromised. KMC is currently utilizing this new water source (well 1) for the medical facility's boiler system and for irrigation purposes.

The designated operator in charge, Gordon Bronson, Director of Facilities, was onsite at the time of the sanitary survey. Also present was Mike Camin and Jean Felker representing the Department (DEQ). The plumbing supervisor, Ryan, from Shannon Plumbing was available for part of the survey.

Source

The KMC emergency water system consists of a single 12" well drilled on 3/25/2009 to a depth of 360' which serves the Medical Center and surrounding KMC facility property. It is classified as a nontransient / noncommunity water system. The well produces approximately 400 gpm and is located on the hospital grounds to the east between the hospital and Highway 95. The static water depth is at 180 feet. The well casing extends a minimum of 12" above ground surface and is properly sealed, well vents properly screened, flow to waste capable, and meets all currently required set backs and minimum distances as required by the Department.

Well 1 currently provides the make up water for the boiler and provides irrigation water during the summer months.

Test pumping results by H2O Well Service dated 3/28/2009 indicates the well was test pumped for 4 hours with a sustained discharge of 310 gallons per minute (gpm) and a 7.6 foot drawdown. This means the well is rated at a capacity up to 200 gpm (two thirds of the short term test pumping discharge). It was previously determined that the hospital would need up to 180 gpm to be supplied by this well to supply drinking water to the hospital. A 50 gpm irrigation

demand was also desired from the well resulting in the design of two submersible pumps for the well.

The GWUDI (Ground Water Under Direct Influence of Surface Water) assessment was completed during the survey for this source and determined that no surface water is influencing the ground water source. There is no well house or reservoir, and the system is not disinfected or treated. Per Mr. Bronson, fertilizers and herbicides have been used on the landscaped areas of the lawns but will now be prohibited from being used within 50' of well lot. There can be no use of fertilizers, herbicides, or pesticides within the minimum setback of 50' around the well.

Preliminary testing results dated 3/30/2009 for Nitrate were not detected and Arsenic at .005mg/l which are acceptable. Coliform and E coli were both absent. The Monitoring Schedule included in this report reflects the requirement for quarterly Coliform monitoring from distribution and annual Nitrate monitoring from the well.

As of this date, we have not received your 3rd or 4th quarter Coliform sample results. Please provide these results as soon as possible to avoid violations of these monitoring requirements.

Distribution

The discharge line from the well tees to the irrigation system and then enters the east side of the KMC building through a 4 inch diameter C-9000 PVC water main, followed by a pressure relief valve, 4 inch instantaneous and totalizing water meter, pressure switch, and pressure tank.

A 4" emergency water main is installed through the basement to the southwest side of the building where water softening units and water heaters are located. A reduced pressure backflow preventer is installed at this location to protect discharge of water from the new water system out into the City of Coeur d'Alene water system. The emergency water system can supply drinking water to the hospital in the event the City water system cannot operate. Separation of the emergency water system line from the domestic water main is by an inline gate valve.

The well is equipped with 2 submersible pumps, one for irrigation purposes at 50 gpm (Goulds 33GS 10 hp pump), and one for emergency water supply at 180 gpm (Goulds 6CHC 40 hp pump).

The Department recommends that all valves and main lines be flushed annually. It is required that any existing dead end lines be flushed once every 6 months.

We have concern regarding the ability to prevent cross contamination of the potable water supply and the softened water (if the valve is open) at the designated area as discussed on site with Mr. Bronson, Ryan from Shannon Plumbing, Mike Camin and Jean Felker. The Department requires verification there is cross connection measures in place or submit your plans to install cross connection control measures.

Financial & Managerial Capacity

Financial and Managerial forms are included with this report. Please complete and return within 45 days.

Monitoring Schedule

The Kootenai Medical Center water system is required to collect 1 total coliform sample each quarter from distribution. The last coliform sample result received was 3/20/2009.

One Nitrate sample per year is required. Last nitrate sample received 3/20/2009.

The Kootenai Medical Center water system does not have a written total coliform rule sampling plan, although a verbal plan has been established. A total coliform sampling plan lists sampling locations throughout the distribution system. According to coliform sampling requirements, the total coliform sampling plan must represent the entire distribution system. This is completed by alternating sampling locations throughout the distribution system. Once written, the sampling plan must be followed to the best of the operator's abilities; each alternating location must be written on the coliform sample submittal form. Please provide a copy to our office for the file.

Conclusions and Recommendations

The Kootenai Medical Center water system appears to be well maintained and operated and is in substantial compliance with the Idaho Rules for Public Drinking Water Systems (Rules).

No significant deficiencies were identified at the time of the survey; however the following additional requirements must be met. Please correct the following additional requirements within 45 days and provide written confirmation to the Department that these items have been addressed.

Requirements to be Corrected

1. Provide verification of the cross connection control utilized between the potable water supply and the water supply serving the boilers.
2. Provide verification of the cross connection control utilized between the potable water supply and the water softener equipment and softened water supply.

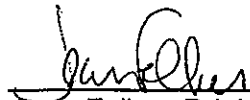
Follow up Items

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3. As of this date, we have not received your 3rd or 4th quarter Coliform sample results. Please provide these results as soon as possible to avoid violations of these monitoring requirements.

Recommendations:

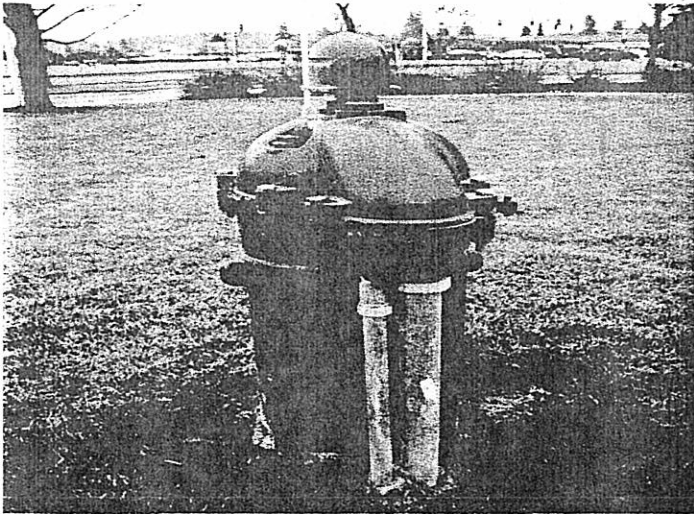
1. The Department recommends the valves in distribution be exercised annually; any dead end distribution mains must be flushed every six months.



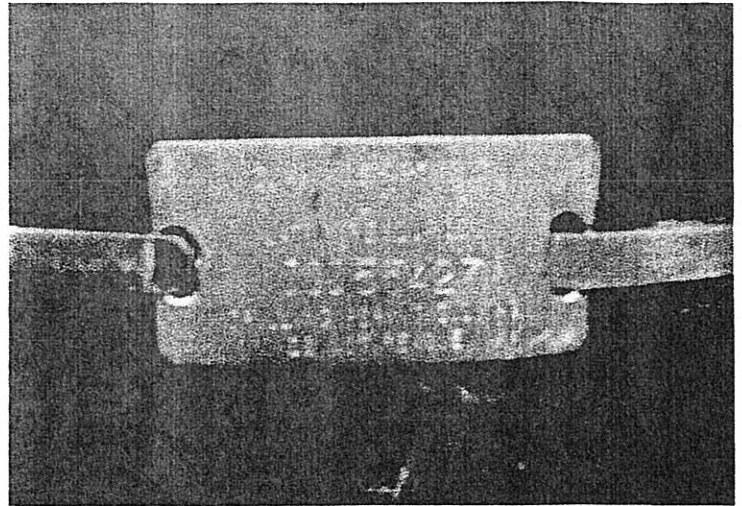
Jean Felker, Drinking Water Analyst

11-18-2009

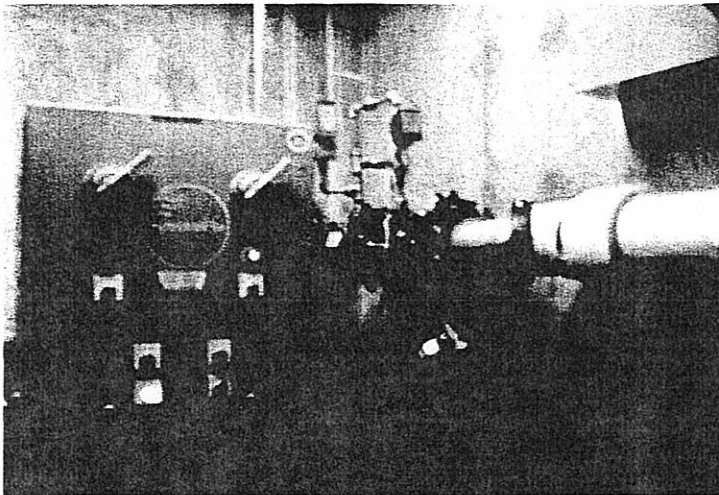
Date



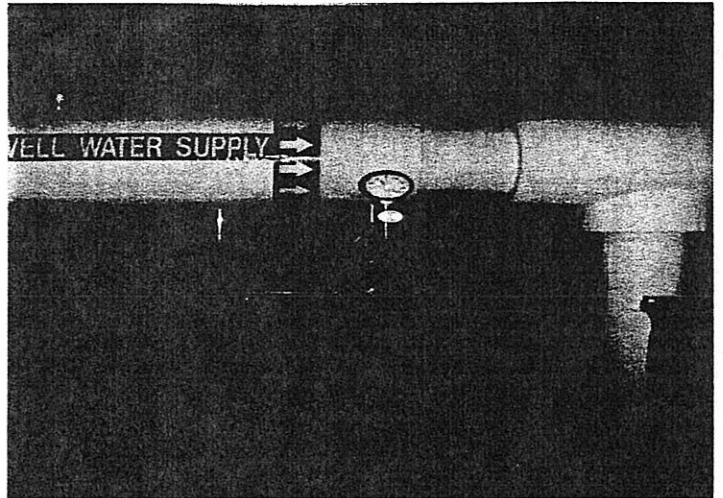
Well 1 facing east on KMC lot



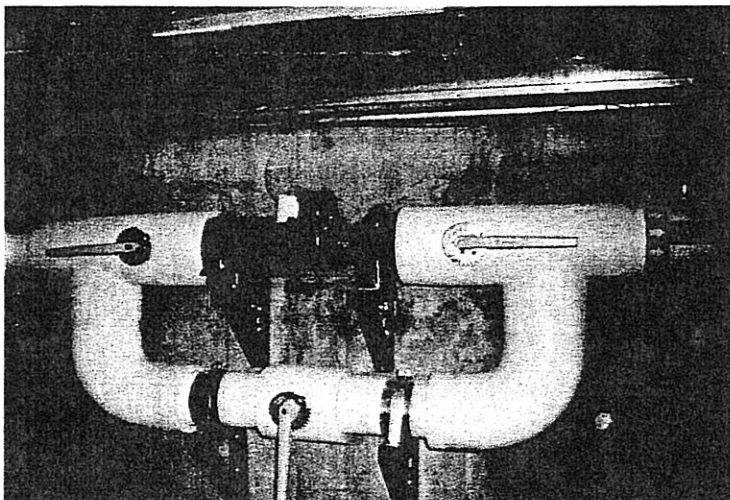
Well tag D0055427 for Well 1



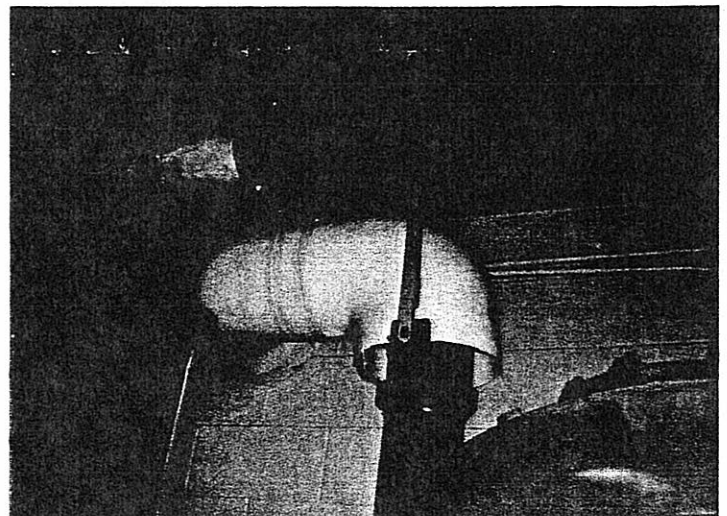
Well 1 entry point into KMC

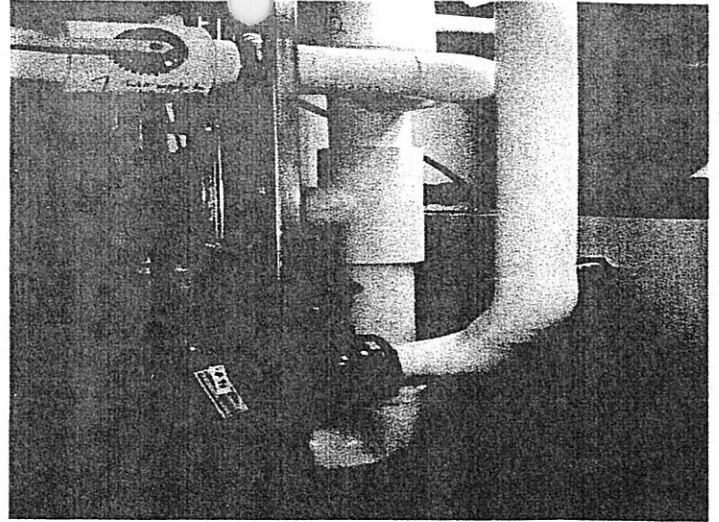
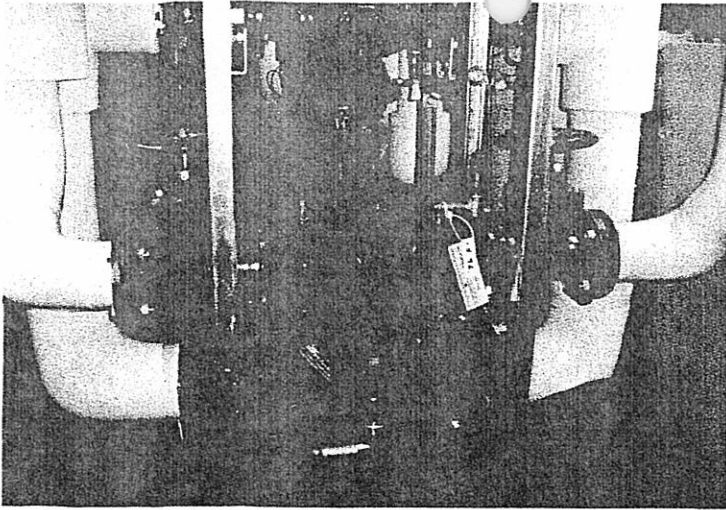


pressure guage, relief valve, sample tap

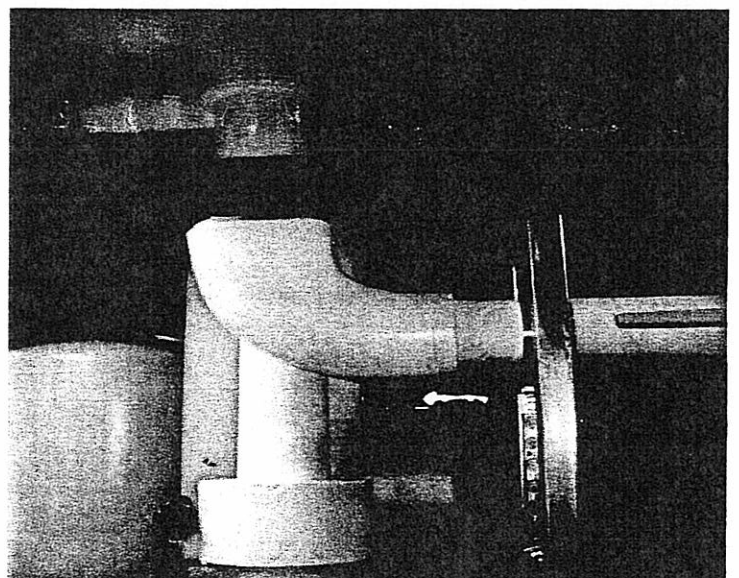
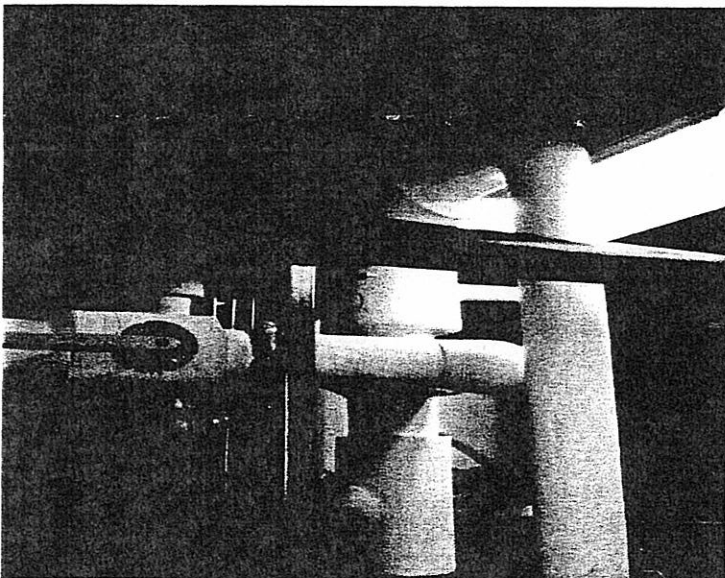
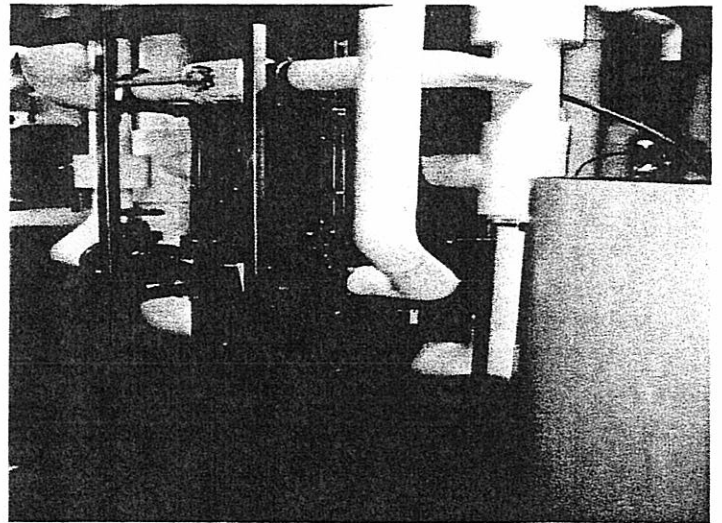
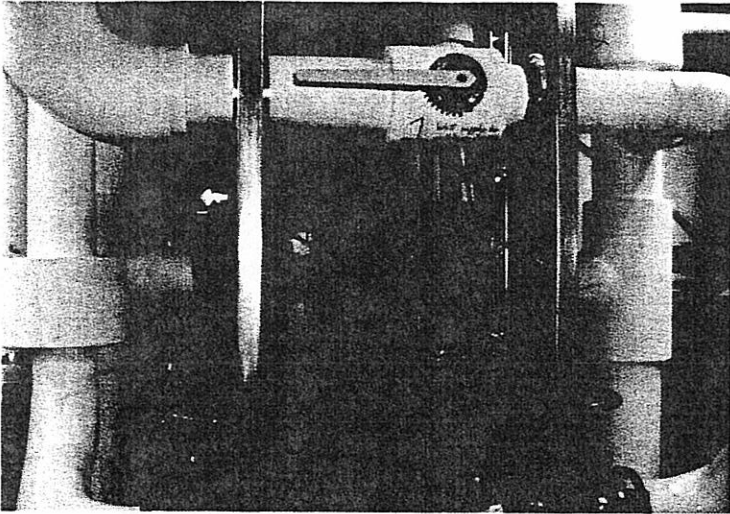


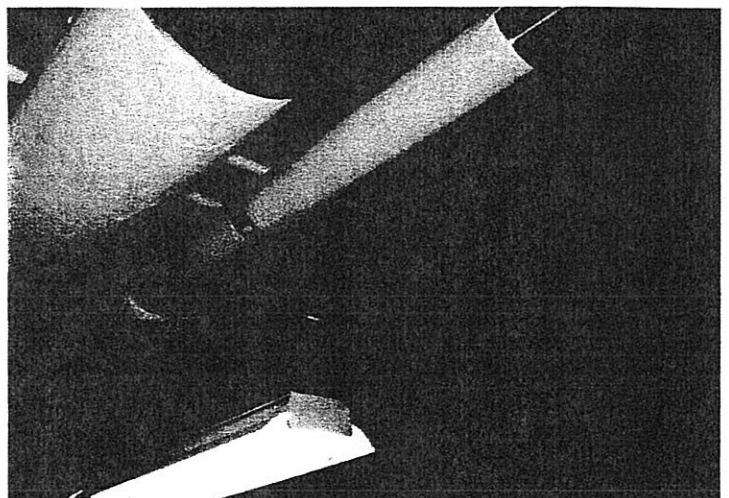
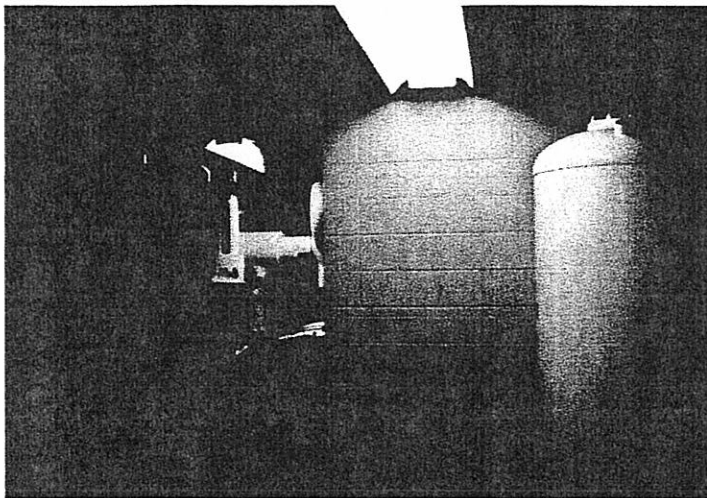
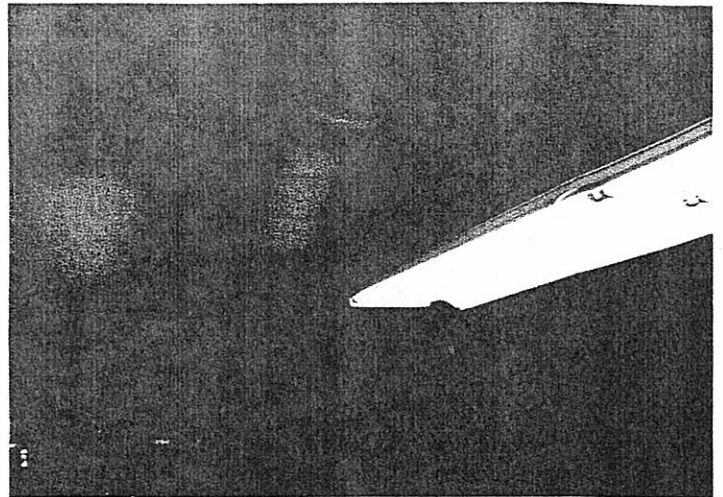
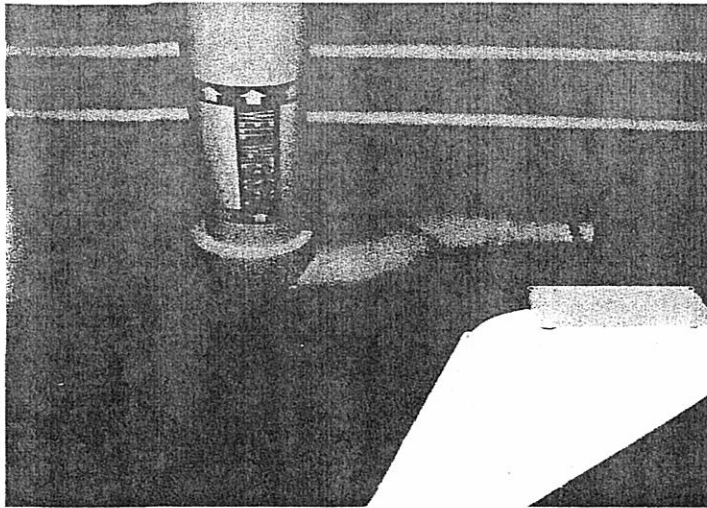
flow meter, associated valves





potential area of cross connection





Potential area designated for cross contamination control to be installed

Jack Smetana

From: "Crane, Dan A" <DCrane@kmc.org>
To: "Jack Smetana" <jsmetana@roadrunner.com>
Sent: Friday, February 05, 2010 9:26 AM
Subject: Well Water Usage

Jack,

We have recorded the following water **usage from our new well** as of August 2009:

Irrigation meter reading from the well on Aug 09: 4,606,809 gallons for irrigation of 15 acres.

Boiler and Tower consumption meter reading from the well as of August 19, 2009: 1,898,700 gallons.

These consumptions would be from the date the well was drilled on 3/25/2009.

Please let me know if this information is not sufficient.

Dan Crane

No virus found in this incoming message.

Checked by AVG - www.avg.com

Version: 8.5.435 / Virus Database: 271.1.1/2669 - Release Date: 02/05/10 07:35:00

Water Consumption at 2003 Kootenai Health Way from Oct 07 thru Oct 09

012331 000 2003 Kootenai Health Way

5,061,000

012327 000

2003 Kootenai Health Way

Main Hospital

1st meter	12,254,000
2nd meter	18,251,000
3rd meter	15,072,000
	45,577,000

012326 000

2003 Kootenai Health Way

1,209,000

012324 000

2003 Kootenai Health Way

14,960,000

112,384,000 Total consumption from Oct 07 thru Oct 09