

Well Bits

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New Form Required for Well and Sewage Inspections

By: Janell Miller, DHHS

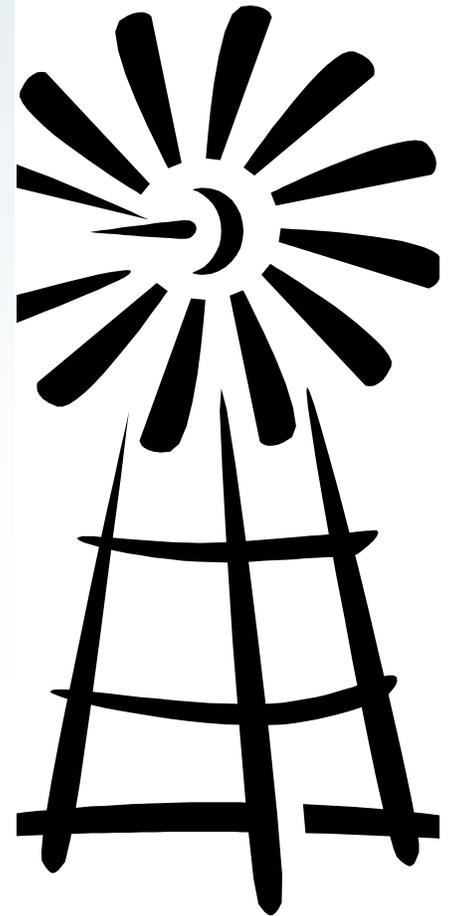
The Nebraska Department of Health and Human Services Division of Public Health (Department) conducts evaluations of domestic water supplies and on-site wastewater treatment systems at the request of homeowners, purchasers, or mortgage lending institutions. Many lenders require an inspection of the water well and onsite wastewater treatment systems for compliance with applicable State of Nebraska regulations prior to granting a loan. The evaluation includes a visual inspection of the water well and the onsite wastewater treatment systems and water samples are collected from the water well and analyzed for total coliform and nitrates. The cost of the inspection is \$100.

The Department recently updated the Application for Evaluation of Individual Water Supply and Sewage Treatment System. The application is available at:

<http://dhhs.ne.gov/publichealth/Documents/WellandSepticApplication.pdf>

If you have questions, please feel free to contact the inspector for the appropriate county (page 5 of the application).

Please note: The application is not for use in Douglas, Hall, Hamilton, Lancaster, Merrick and Scotts Bluff counties. Contact number for the local health departments are as follows: Douglas (402)444-7485; Hall, Hamilton, Merrick (308)385-5175; Lancaster (402)441-8031; Scotts Bluff (308)436-6636.



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What to do With an Original Well When a Replacement Well is Drilled

By: Mike Thompson, Department of Natural Resources

No matter what will eventually be done with an older well that is being replaced, a physical modification or well decommissioning **MUST BE COMPLETED WITHIN 180 DAYS** after the new (replacement) well is drilled. Documentation that verifies the decommissioning or physical modification of the original well must be filed with the Department of Natural Resources, in order for the replacement (new) well registration to be completed.

If the original well is intended to eventually be decommissioned according to best practices determined from the research in the ongoing rehabilitation and decommissioning study, the original well still needs to be physically modified according to state statute and any applicable NRD rules within 180 days.

According to state statute *Neb. Rev. Stat. § 46-602(2)*, if the original well is not going to be decommissioned within 180 days, then it must be modified and equipped to pump fifty gallons per minute or less and will be used only for livestock, monitoring, observation, or any other nonconsumptive use or de minimis use approved by the applicable natural resources district. The NRDs may adopt rules regarding the modification or decommissioning of wells, so it is important to check with the local NRD before choosing a course of action other than timely decommissioning a replaced irrigation well.

This can be done by:

- Pulling the pump and putting a water-tight cap on it.
- Pulling the old pump and putting in a pump that is to be used to pump less than 50 gpm
- Pulling the old pump and welding a smaller pipe on it.

This is then capped or a smaller pump is installed.

Once any of the above options are completed, a Water Well Registration Pump Installation and Construction Modification form **MUST** be submitted to the Department of Natural Resources (DNR).

On the modification form indicate what type of use the well is modified to be and what was done to modify it. If your intention is to decommission the well at a later date when improved decommissioning standards are available, then include a statement on the modification form that clearly explains your intention. The DNR will only be able to accept this option if it doesn't violate NRD rules. This information will be recorded in the well registration database and may be used to assist the Department of Health and Human Services track these wells for future action once their study is completed and new practices implemented.

If you do not intend to modify the well as described above and file a well modification form, then the well must be properly decommissioned within the 180-day statutory limit and a well decommissioning form must be submitted, so the Department of Natural Resources can complete the registration of the newly drilled well as a replacement well.

Failure to modify or decommission and file the proper paperwork on the older well may result in the new well being determined to be an illegal well. If the new well registration cannot be completed after the 180-day period is over, due to statutory reasons, it will be required to be registered as a new well.

Mike Thompson: (402) 471-0597



Things to Know Before Decommissioning a Well with Transite Asbestos Casing

By: Tom Christopherson, DHHS



The removal of asbestos and asbestos-containing materials (ACM) is regulated by the Department of Health and Human Services Department under the authority of Title 178 NAC 22. Normally the removal of asbestos wouldn't impact the water well contractor, however, when decommissioning an irrigation well that is cased with transite asbestos cement or replacing a transite water main, the water well contractor needs to know the rules and regulations for the removal and disposal of such products.

According to Title 178 NAC 22: Asbestos project means an asbestos encapsulation project, an asbestos removal project, an asbestos enclosure project, an asbestos related demolition project or an asbestos related dismantling project, but does not include (a) any activities which affect three square feet or less or three linear feet or less of asbestos-containing material on or in a structure or equipment or any appurtenances thereto, or (b) any activities physically performed by a homeowner, a member of the homeowner's family, or an unpaid volunteer on or in the homeowner's residential property of four units or less.

In addition, asbestos related demolition project means activities which include the razing of all or a portion of a structure which contains friable asbestos-containing materials or other asbestos-containing materials which may become friable when such materials are cut, crushed, ground, abraded, or pulverized.

This means that the Department does not consider the removal of three feet or less a project. However, to ensure public safety, proper procedures should be followed anytime asbestos might be disturbed. When more than three feet of asbestos is affected, the regulations must be followed and the Department needs to be notified of a project. Transite asbestos cement is typically considered non-friable (not easily broken with hand pressure and made airborne). Therefore, if careful procedures are followed, non-friable ACM can be removed by anyone and disposed of at any landfill that will accept it. We recommend that you contact the landfill for specific details on how they would like to receive the material. For details on how to notify and safely remove non-friable ACM, check out the Asbestos Control Program's website at:

http://dhhs.ne.gov/publichealth/Pages/enh_asbestos_index.aspx

In order to ensure that a water well contractor doesn't inadvertently violate the requirements of Title 178 NAC 22 of the Nebraska Asbestos Control Program regulations, the contractor or the well owner may contact the Nebraska Asbestos Control Program at 402-471-0549 or 888-242-1100 (Ext.1) for assistance.

Look Before You Drill: Checking Water Well Spacing Before Construction Begins

By: Mike Thompson, Department of Natural Resources



The provisions of *Neb. Rev. Stat.* § 46-609 and 46-651 prescribe the required distances that certain kinds of water wells under different ownership must be from each other.

Apart from specifically-listed exceptions, *Neb. Rev. Stat.* § 46-609(1) states that irrigation wells under different ownership must be constructed at least 600 feet away from each other. *Neb. Rev. Stat.* § 46-651 (1) increases that distance requirement to 1,000 feet for each of the following cases: a) a public water supply well and another public water supply well, irrigation well, or industrial well; b) an industrial well and another industrial well, irrigation well, or public water supply well; and c) an irrigation well and an industrial well or public water supply well. Anyone who wishes to construct a water well of one of the above types at less than the statutorily-prescribed distance from another well of one of the above types must obtain a special permit from the Department of Natural Resources (Department) prior to well construction.

Many times, the spacing between an existing water well and a proposed water well location is checked when someone applies for a water well construction permit from the local natural resources district (NRD). Any potential well spacing conflict between an existing well and a proposed well site can then be addressed prior to well construction. Pursuant to *Neb. Rev. Stat.* § 46-735(1)(b), however, a water well construction permit is not required for a single water well designed and constructed to pump fifty (50) gallons per minute or less, unless specifically prescribed by NRD rules. Because a construction permit is not needed in these cases, the NRD does not perform that initial check for spacing and may not necessarily be aware that a new well is being, or has been, constructed.

In any case, the drilling contractor has the primary responsibility for physically verifying that the location of a planned well does not conflict with statutory spacing requirements. In addition to measuring physical distance between existing wells and a proposed well, the driller should also verify the owner-

ship of any water well located at less than the statutorily-required distance from a well the driller intends to construct. Even when the NRD checks for well spacing when examining a construction permit application, the NRD's assessment of well spacing can be only as good as the location information available to the NRD. For example, an existing well may be mapped in the wrong location, because the Department's registered wells database or the NRD's own records show incorrect location information. The cause of the information error(s) could be within the original information that was filed with the Department, or it could be a typographical error, depending on the source of information used.

Consequently, the drilling contractor should always conduct an on-the-ground check for potential statutory well-spacing conflicts before beginning construction on an irrigation, public water supply, or industrial well, regardless of the planned capacity of that well. This includes verifying the ownership of existing wells located within the statutory spacing distance of the proposed well. Drillers can find much of the needed information concerning well owners and registered well locations on the Department's website, at www.dnr.nebraska.gov. If a driller cannot find the information on the Department's website, then Department personnel are available by phone or email to assist a drilling contractor in any way necessary to obtain the needed information.

Mike Thompson: (402)471-0597



Meters, Check Valves, and Title 178

By: Tom Christopherson—DHHS

With the increased concern over the amount of water used for irrigation in Nebraska there has been an increase in the use of meters for measuring total volume of water produced by irrigation wells. Our department has been getting numerous requests to clarify when Title 178 NAC 12 regulations require the installation of a check valve, specifically if a meter is being installed in the discharge piping.



Solar pump with air gap

12-002 Definitions. Backflow Preventer means an assembly, a device, or a construction practice that prohibits the backflow of water from the distribution piping into the water well. This includes but is not limited to check valves, curb stops, or air gaps.

12-011 INSTALLATION OF PUMPS AND PUMPING EQUIPMENT

12-011.01 General Requirements: The following are general requirements and apply to the installation of all pumps and pumping equipment not already regulated, such as public water systems under Title 179.

12-011.01A Contamination: Pumps and pumping equipment must be installed in a manner that prevents contaminants from entering the well.

12-011.01F Repair or Modifications to Pumps and Pumping Equipment: “Upon the removal of, or the repair and/or modification to the pump or pumping equipment in which replacement of original equipment is required, current pump and pumping equipment installation standards must be followed...”

12-011.02 Installation of Pumps: All pump installation must comply with 178 NAC 12-011.01 and 12-011.03.

12-011.03C Backflow Protection: The discharge piping from any pump and pumping equipment must be equipped with a backflow preventer. A backflow preventer must be placed before any other device or branches in the distribution piping. Check valves must not be buried at the well for backflow prevention. The device must be located within 1 foot of the discharge head and prior to any other devices.

12-011.03D Discharge Piping includes any and all piping beginning at the discharge head or pitless unit tapping, extending to the first shut off valve or backflow preventer.

12-011.03D1 Above ground discharge piping must:

1. Be protected against the entrance of contamination;
2. For potable water use, be constructed of materials appropriate to each specific service;
3. Be equipped with a backflow preventer, chemigation valve, or air gap;...

Meters, Check Valves, and Title 178 Continued

By: Tom Christopherson, DHHS

The installation of a meter is not regulated under the current version of Title 178 NAC 12. That being said, if you read the regulation in its entirety you will discover that discharge head and discharge piping are regulated by Title 178. The regulation is clear in that if modifications are made to the pump or pumping equipment in which replacement of the original equipment is required, current standards must be followed. The addition of a meter is a major modification to the discharge piping of an irrigation system and a check valve will be required to be installed before the meter.

Consequently, if the check valve needs to be installed on the discharge piping of an irrigation well the work must be performed by a licensed State of Nebraska Pump Installation Contractor. Once the check valve is in place, the flow meter may be installed by an unlicensed person because the check valve is the seal of the discharge piping.



Correct installation of meter and check

Please contact Water Well Standards at 402-471-0546 for a licensed contractor in your area



Sub with check valve disconnected



Incorrect installation of meter and check valve

New Staff Assistant for the Water Well Standards Program

**Board Meeting Dates
for 2015**

All board meetings are open to the public and everyone is welcome to attend

- June 24
- August 26
- October 28
- December 9

**2015 Licensure
Examinations**

Exams will be held in Grand Island, Lincoln, Norfolk, North Platte, and Scottsbluff, Nebraska

- August 5
- November 4

[Water Well Standards Program Website](#)

[License Information Website](#)

My name is Kim Howell and I've been with the Nebraska Department of Health and Human Services for one year. I started working for Engineering Services and last August was promoted to the Water Well Standards Program. I have a background in computer programming and office Management. I enjoy customer service and helping others.

I love this beautiful state. The Sandhills are amazing! I've lived in Brown, Rock, Hall, Dodge, Saunders, Douglas, and Lancaster counties. I've experienced life in the city and I love living in the country. I've been part of a family farming operation and a few of you fine folks have drilled our private and irrigation wells. My husband and I have also owned our own business, so I understand your needs as a business owner and will do my best to meet your requests in a professional and timely manner.

In my spare time my husband and I enjoy trips on our Harley, entertaining, and spending time with our children and granddaughters.

My responsibilities include handling your calls regarding continuing education for your profession and other questions regarding exam dates and renewals. I work closely with credentialing to ensure your license information stays current. Another part of my daily work is to assist the field personnel, keeping their records and database information up-to-date. I work with the sanitarians on well and septic inspection letters, and I'm currently tracking the Water Well Standards new Title 178 water sample data. Thank you contractors for continuing to hand out the brochures when you work on an existing well or drill a new well.



Most importantly I'm Tom Christopherson's personal answering machine!

Don't hesitate to call if you have any questions. (402) 471-0546 or kim.howell@nebraska.gov

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Well Bits is published by the Water Well Standards Program of the Nebraska Department of Health and Human Services, Division of Public Health. The goal of Well Bits is to inform licensed contractors of news and information related to the industry. Suggestions for articles are appreciated; however, we reserve the right to decide whether an item is appropriate for publication. Send your ideas, questions, and comments to: Well Bits, Water Well Standards, PO Box 95026, Lincoln, NE 68509-2026.