



NR 112, RD 12

Filed March 15, 1971  
8:45 am

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

L. P. Voigt  
Secretary

BOX 450  
MADISON, WISCONSIN 53701

STATE OF WISCONSIN )  
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DEPARTMENT OF NATURAL RESOURCES ) ss.

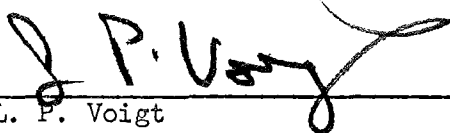
Greetings:

I, L. P. Voigt, Secretary of the Department of Natural Resources, hereby certify that the renumbering and amending of the rules and regulations of the Department of Resource Development (RD) in the Wisconsin Administrative Code to Natural Resources (NR) designation are renumberings and amendments designed solely to bring the language of the existing rules into conformity with subsequent statutory changes which created the Department of Natural Resources (Chapter 75, Laws of 1969 and Wis. Stat. 15.34) and reorganized the state structure (Chapter 276, Laws of 1969).

I further certify that said copy has been compared by me with the original on file in this department and that the same is a true copy thereof, and of the whole of such original.

DEPARTMENT SEAL

In testimony whereof, I have hereunto set my hand and affixed the official seal of the Department at the Pyare Square Building in the City of Madison, this 12th day of March, A.D., 1971.

  
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L. P. Voigt  
Secretary

ORDER OF THE DEPARTMENT OF NATURAL RESOURCES  
ADOPTING, AMENDING OR REPEALING RULES

Pursuant to authority vested in the Department of Natural Resources by 227.02 (2) (b), Wis. Stats., the Department of Natural Resources hereby repeals, amends and adopts rules as follows:

SECTION 1. Chapter RD 12 is renumbered to Chapter NR 112.

SECTION 2. RD 12.01 is renumbered to NR 112.01.

SECTION 3. NR 112.01 (2), (3) and (4) are amended to read:

(2) Approved Comparable Construction. When strict compliance with this code appears to be impracticable, the reasons therefor shall be communicated in writing to the department of ~~resource-development~~ for advice and approval of comparable specifications.

(3) Contract Applicability. Applicable specifications and provisions of this code are, by law, a part of any order or agreement, written or verbal, for the construction or reconstruction of a well or appurtenances thereto, or for the installation of pumping equipment. Construction or installation shall be deemed complete when all code requirements or approved comparable specifications are complied with. (See Wis. Adm. Code section ~~RD-12.08~~ NR 112.08 (1)).

(4) Existing Installations. Existing well and pump installations that conform to section ~~RD-12.15~~ NR 112.15 will be acceptable. Non-complying pit and pump installations made prior to the effective date of this section shall be corrected to comply with section ~~RD-12.15~~ NR 112.15 or the regulations for new construction before January 1, 1956. Well and pump installations that are unsafe should be corrected as soon as possible.

SECTION 4. RD 12.02 is renumbered to NR 112.02.

SECTION 5. NR 112.02 (1) and (3) (b) are amended to read:

(1) General. Regulations are hereby prescribed to establish uniform minimum standards and methods of procuring and protecting an adequate supply of ground water safe and fit for human consumption and for the preparation of

food products through adequate construction or reconstruction of wells, installation of pumping equipment, or other methods approved by the department of ~~resource-development~~, in conformity with chapter 162, Wis. Stats. The following basic principles, general in scope and fundamental in character, shall govern the location, construction or reconstruction and maintenance of wells, installation and maintenance of pumping equipment, and supervision of well constructors and pumping equipment installers.

(3) (b) Adequate in capacity to supply the required volume of water, where available for maintenance of sanitary conditions, all ordinary domestic purposes and other specified uses. (See section ~~RD-12.03~~ NR 112.03 (1)).

SECTION 6. RD 12.03 is renumbered to NR 112.03.

SECTION 7. NR 112.03 (3) is amended to read:

(3) APPROVED means sanctioned by the department of ~~resource-development~~ in conformity with applicable laws, regulations and specifications.

SECTION 8. RD 12.04 is renumbered to NR 112.04.

SECTION 9. RD 12.05 is renumbered to NR 112.05.

SECTION 10. NR 112.05 (3) (intro. par.), (4) (intro. par.), (5) (intro. par.), and (6) (a) and (g) are amended to read:

(3) Flowing Wells. The construction of flowing wells shall comply with the minimum requirements of ~~RD-12.05~~ NR 112.05 (2).

(4) Bored Type Wells. Through the vertical zone of contamination the construction of a bored type well shall conform to the specifications for drilled type wells. (Section ~~RD-12.05~~ NR 112.05 (2) and Appendix figure 6.)

(5) Driven Point Wells. Through the vertical zone of contamination the depth of the unperforated pipe of a driven point well shall conform to the specifications for drilled type wells. (See section ~~RD-12.05~~ NR 112.05 (2)).

(6) (a) Concrete wall. The concrete mixture shall conform with the provisions of section ~~RD-12-11~~ NR 112.11 (1). The wall shall be circular and at least 6 inches thick with concrete so placed as to be free from voids. Vertical and horizontal reinforcing with three-eighths inch rods on 12-inch centers shall be provided. Rods shall lap 12 inches but such lap shall not occur at construction joints. If possible, the wall shall be poured in one operation but in no case shall there be a construction joint within 10 feet of the surface. Construction joints shall be left rough and shall be washed and brushed with neat cement grout before pouring of concrete is continued. (See Appendix figure 8 (a)  $\rightarrow$ ).

(g) Dug well cover. The cover of a well curbed according to subsection (a) or (b) shall be made of substantial reinforced watertight concrete at least 5 inches thick and of sufficient diameter to overlap the wall or curb by at least 2 inches. The cover shall be free from joints. A tight joint shall be provided between the top of the wall and the cover, using a plastic compound, if necessary. The top of the slab shall be sloped to drain away from the pump. A manhole, if installed, shall be provided with a metal curb, the top of which extends 4 inches above the slab and is equipped with an overlapping cover, the sides of which extend downward at least one and one-half inches. The manhole cover shall be locked or bolted in place in such manner as to be safe and to prevent entrance of water. (See section ~~RD-12-09~~ NR 112.09 (1)  $\rightarrow$ ).

SECTION 11. RD 12.06 is renumbered to NR 112.06.

SECTION 12. NR 112.06 (2) is amended to read:

(2) The water-tight casing or curbing of any well supplying water to residential units housing not more than 3 families shall extend to a point above the established ground surface unless a permit for a well pit is obtained from the department. A pitless sub-surface connection is permitted if made with approved fittings or welding procedures, the connection is above ground-water level, and the pump location is not subject to flooding. Suction,

submersible and jet pump piping shall be enclosed in a pipe conduit having a minimum thickness of 0.237 inches. (See section ~~RD-12-09~~ NR 112.09 (1)).

SECTION 13. RD 12.07 is renumbered to NR 112.07.

SECTION 14. NR 12.07 (3) (c) and (d), (4) and (5) are amended to read:

(3) (c) Testing. Test the well by pumping, except when flowing in excess of requirements, to determine the amount of drawdown and the quantity and stability of the yield within the requirements of sections ~~RD-12-02~~ NR 112.02 (3) (b), ~~RD-12-03~~ NR 112.03 (1), ~~RD-12-05~~ NR 112.05 (1) (c) or if in excess thereof, as specified by agreement with the purchaser.

(d) Sealing. Seal the well water-tight. (See sections ~~RD-12-09~~ NR 112.09 (2) (a) and ~~RD-12-09~~ NR 112.09 (3)-).

(4) Blasting. The use of explosives for increasing or recovering yield of any well developed into limestone, granite or quartzite formations, or of any sandstone well in which casings and liners are not grouted or in which the diameter of the drillhole is larger than that of casings or liners above the point of shooting, shall be undertaken only under permit from the department. (See section ~~RD-12-08~~ NR 112.08 (3)-).

(5) Chemical Conditioning. The use of dry ice, detergents, chlorine, acids, or other chemicals in wells for the purpose of increasing or restoring yield shall be undertaken only under permit from the department. Any chemical treatment of a well shall be under supervision of a registered well contractor, professional engineer, or qualified water superintendent. (See section ~~RD-12-08~~ NR 112.08 (3)-).

SECTION 15. RD 12.08 is renumbered to NR 112.08.

SECTION 16. RD 12.09 is renumbered to NR 112.09.

SECTION 17. NR 112.09 (3), <sup>intro</sup> (3) (a) and (7) are amended to read:

(3) Power Driven Pump. Any power driven pump located over the well shall be mounted on the well casing, a pump foundation or a pump stand in such manner as to effectively seal the top of the well. In case the pump unit is not located over the well, and the pump delivery or suction pipe emerges from the top thereof, a water-tight expanding or equivalent seal shall be provided between the well casing and the piping. A similar seal shall be provided at the terminal of a conduit containing suction, submersible or jet pump piping. (See sections ~~RD-12-06~~ NR 112.06 (1) and (2) and ~~RD-12-09~~ NR 112.09 (4) ~~†~~).

(a) Pumphouse. The structure housing a power driven pump shall be constructed so as to permit access to the pump for maintenance and repair work. The pumphouse floor shall be constructed of concrete. On above ground installations the surface thereof shall be located not less than 4 inches above the established ground surface. (See section ~~RD-12-06~~ NR 112.06 (2) ~~†~~).

(7) Disinfection and Sampling. Upon completing the installation of pumping equipment, the installer thereof shall conform to sections ~~RD-12-07~~ NR 112.07 (3) (a) and (b) and ~~RD-12-08~~ NR 112.08 (1) and (4).

SECTION 18. RD 12.10 is renumbered to NR 112.10.

SECTION 19. RD 12.11 is renumbered to NR 112.11.

SECTION 20. RD 12.12 is renumbered to NR 112.12.

SECTION 21. RD 12.13 is renumbered to NR 112.13.

SECTION 22. RD 12.14 is renumbered to NR 112.14.

SECTION 23. NR 112.14 (1) is amended to read:

(1) General. The ~~director~~ secretary may, upon receiving written notice of any alleged failure on the part of any well constructor or installer of pumping equipment to observe and comply with any rule or regulations of this code, order any such constructor or installer to give at least 48 hours notice to the department of the day and date upon which any well under construction or

any installation of the pumping equipment, by such constructor or installer, or any employe or agent thereof, will be completed; and, require any such constructor or installer to assist the supervisor of well construction in ascertaining the size, depth and character of the construction of any such well or the character of the samples of water from any such well, and such other information as may be required by the said supervisor to determine if any such well has been constructed or any such equipment has been installed in accordance with the rules and regulations of this code. The aforesaid order shall remain in effect for such time as in the discretion of the department may be deemed necessary to attain full compliance with the rules and regulations of this code and until terminated by written notice issued by the said officer.

SECTION 24. RD 12.15 is renumbered to NR 112.15.

SECTION 25. NR 112:15 (1) (a) and (b) (intro. par.), and Figures 6, 7, 8, 9, 10 and 11 in the Appendix are amended to read:

(1) (a) Location. The location shall reasonably conform to Wis. Adm. Code section ~~RD-12.04~~ NR 112.04.

(b) Construction. The underground construction shall be in reasonable compliance with section ~~RD-12.05~~ NR 112.05 as to depth and type of casing and curbing. Existing well pit installations shall meet the following requirements:

Figure 6. Bored Type Well Construction. See Wis. Adm. Code section ~~RD-12.05~~ NR 112.05 (4).

Figure 7. Driven Point Well Construction. Illustration (c) shows suitable method of returning frost drain water to well when impervious soil is present. See Wis. Adm. Code section ~~RD-12.05~~ NR 112.05 (5).

Figure 8. Sanitary Construction of Dug Wells. See Wis. Adm. Code Section ~~RD-12.05~~ NR 112.05 (6).

Figure 9. Drilled Well Constructed in Existing Dug Well. See Wis. Adm. Code section ~~RD-12.05~~ NR 112.05 (7).

Figure 10. Hand Pump Mountings. (a) On well casing pipe through a water-tight pump flange. (b) On a section of pipe set in concrete well top and fitted with a pipe flange. See ~~RD-12.09~~ NR 112.09 (1) and (2) (a).

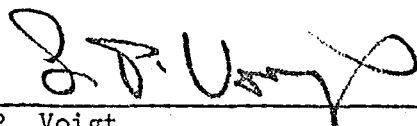
Figure 11. Types of Well Seals. (a) and (b): Seals using inside compressed rubber. (c) using inside plastic compound. (d) using outside compressed rubber gasket. (e) using caulked lead, compressed rubber and packing. See Wis. Adm. Code section ~~RD-12.09~~ NR 112.09 (3).

The rules, amendments and repeals contained herein shall take effect on publication.

Dated at Madison, Wisconsin, this 12th day of March, 1971.

DEPARTMENT OF NATURAL RESOURCES  
By

(DEPARTMENT SEAL)

  
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L. P. Voigt  
Secretary