

NR 112

State of Wisconsin

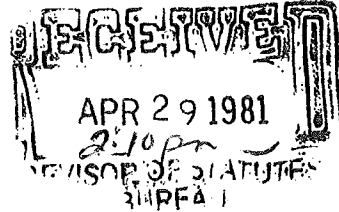
DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny
Secretary

BOX 7921
MADISON, WISCONSIN 53707

IN REPLY REFER TO: _____

STATE OF WISCONSIN)
)
DEPARTMENT OF NATURAL RESOURCES) ss



TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Carroll D. Besadny, Secretary of the Department of Natural Resources and custodian of the official records of said Department, do hereby certify that the annexed copy of Natural Resources Board Order No. WQ-45-79 was duly approved and adopted by this Department on January 29, 1981. 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.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Department at General Executive Facility #2 in the City of Madison, this 27th day of April, 1981.

Carroll D. Besadny
Carroll D. Besadny, Secretary

(SEAL)

7-4-81

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
REPEALING, AND REPEALING AND RECREATING RULES

.....
IN THE MATTER of repealing section NR 112.25; .
and repealing and recreating section .
NR 112.08(2)(d) of the Wisconsin . WQ-45-79
Administrative Code pertaining to pipe .
specifications for well construction .
.....

Analysis Prepared by Department of Natural Resources

Section NR 112.08(2)(d), Wis. Adm. Code, provides that the pipe used in the construction of wells in this state be new pipe made to and meeting specifications of the American Society for Testing and Materials (ASTM) and the American Petroleum Institute (API). The amendments to the rule provide generally that:

1. As an alternative to use of pipe manufactured to and meeting ASTM, API or AWWA standards listed in s. NR 112.08(2)(d), it shall be permissible to install in well construction new, weldable steel pipe having nominal diameters of Table 2 for six inch pipe or less which is tested to a minimum hydrostatic pressure of 1200 p.s.i. and which is otherwise determined to be equivalent to pipe meeting ASTM A-120 specification.
2. Each length of such pipe shall be marked or labeled with the test pressure and a code mark acceptable to and registered with the Department and the Secretary of State, which shall act as certification that the pipe is equivalent to the ASTM A-120 specification.
3. Entities proposing to test their pipe in accordance with the alternative pipe provision shall submit to the Department a proposed testing program and procedure for approval by the Department.
4. As a part of surveillance of the testing procedure, the Department may require that an independent testing lab make up to eight unannounced visits to the entity's facility to inspect the testing procedure and to perform hydrostatic tests on at least 10 lengths of pipe (per visit) which has been tested and marked. Also, the Department may require that up to 10 lengths of pipe per year may be taken from a well driller's stock to be tested by an independent lab in Wisconsin. The costs of all of the testing are to be borne by the entity supplying the pipe.
5. All pipe intended for water well construction in the state shall be subject to random examination by the Department which may require defective lengths to be rejected and returned to the manufacturer or supplier. Criteria for determining defective lengths are listed subd. d.4.

Two new standards are also included in s. NR 112.08(2)(d); they are ASTM A-589 and AWWA C-200.

Pursuant to the authority vested in the State of Wisconsin Natural Resources Board by sections 162.01, 162.03 and 227.014, Wisconsin Statutes, the State of Wisconsin Natural Resources Board hereby repeals, and repeals and recreates rules interpreting sections 162.01 and 162.03, Wisconsin Statutes, as follows:

SECTION 1 - Section NR 112.08(2)(d) is repealed and recreated to read:

(d) Pipe specifications. 1. No used pipe may be installed as the protective well casing in the permanent construction of a well or for other potable water supply use, except that the well constructor may reuse pipe withdrawn immediately from a newly constructed unsuccessful well or from a new well where the department requests the well constructor to reconstruct or replace it, provided the pipe has suffered no physical damage. The pipe used as the permanent protective well casing either in initial well construction, as a liner subsequent to the initial construction or for other potable water supply purpose shall be new pipe meeting any of the following standards, but further subject to freedom from injurious defects as listed in subd. 4.:

- a. ASTM A-53;
- b. ASTM A-106;
- c. ASTM A-120;
- d. ASTM A-589;
- e. API 5A;
- f. API 5AX;

- g. API 5L;
- h. API 5LX;
- i. AWWA C 200;
- j. The standard outlined in subd. 3.

2. Except as provided in subd. 3., each length of pipe 2 inches in diameter or greater shall be legibly marked in conformance with the ASTM, API or AWWA marking specifications for the particular pipe standard showing, where respectively required, the manufacturer's name or trade mark; ASTM or AWWA marking or API monogram; standard; size in inches; weight in pounds per foot; whether seamless or welded and, if welded, type of weld; grade; and length in feet and tenths of feet.

3. It is permissible to use new weldable steel pipe having nominal diameters of Table 2 for 16 inch pipe or less and tested to a minimum hydrostatic pressure of 1200 p.s.i. and which is otherwise determined to be equivalent to pipe meeting the ASTM A-120 specification in accordance with the following procedures:

a. Each length of such pipe shall be pressure tested and shall be marked or labeled with the test pressure and a code mark acceptable to and registered with the department and the secretary of state, which shall act as certification that the pipe is equivalent to the ASTM A-120 specification.

b. Any entity which proposes to test its pipe in accordance with this subsection shall provide to the department a proposed testing program and procedure which shall be approved by the department prior to the initiation of the testing program.

c. As a part of the surveillance of the testing procedure, at a maximum of 8 unannounced times annually as determined by the department, an independent testing laboratory, contracted for by the entity supplying the

pipe and acceptable to the department, shall inspect the testing procedure of the entity and perform hydrostatic tests on at least 10 lengths of pipe in the entity's stock which has been tested and marked. In addition, the department may require that up to 10 lengths of pipe selected in any year by the department from stock of randomly selected well drillers shall be tested by an independent laboratory in Wisconsin acceptable to the department and contracted for by the entity supplying the pipe. No more than one length of pipe may be selected for testing during any visit. The transportation of the pipe to the laboratory and replacement of the driller's stock and the cost of the testing shall be the responsibility of the entity supplying the pipe. The results of the surveillance inspection and testing by the laboratories shall be reported to the department by the laboratories.

4. All pipe intended for water well construction or other potable water supply use within this state shall be subject to random examination by the department which may require any defective length of pipe or lots having more than 5% of pipe with lengths less than 5 feet to be rejected and returned to the manufacturer or supplier. Defective lengths shall include, but not be limited to:

- a. Pipe with girth welded joints;
- b. Pipe with welded patches;
- c. Pipe not conforming to the marking requirements of subd. 2. or 3.;
- d. Pipe with injurious defects, such as:
 - 1) Cracks;
 - 2) Open welds;
 - 3) Partial or incomplete welds;
 - 4) Open seams;
 - 5) Laminations in pipe wall which exceed 12 1/2% of wall thickness;

6) Slivers which exceed 12 1/2% of wall thickness.

5. The above listed ASTM, API and AWWA references are available for inspection at the offices of the department of natural resources, the secretary of state and the revisor of statutes and may be obtained for personal use from the American Society for Testing and Materials; 1916 Race Street, Philadelphia, Pennsylvania 19103, the American Petroleum Institute, Division of Production, 300 Conigan Tower Building, Dallas, Texas 75201 and from the American Water Works Association, 666 West Quincy, Denver, Colorado 80235.

TABLE 2

CASING PIPE AND COUPLING WEIGHTS AND DIMENSIONS

Size in Inches	Wgt. Lbs.		Pipe			Couplings		Length in Inches
	Threads & Coupling	Plain End	Thickness in Inches	Diameter External	Inches Internal	Threads Per Inch	External Diameter Inches	
1	1.70	1.68	.133	1.315	1.049	11-1/2	1.576	2-5/8
1-1/4	2.30	2.27	.140	1.660	1.380	11-1/2	1.900	2-3/4
1-1/2	2.75	2.72	.145	1.900	1.610	11-1/2	2.200	2-3/4
2	3.75	3.65	.154	2.375	2.067	11-1/2	2.750	2-7/8
2-1/2	5.90	5.79	.203	2.875	2.469	8	3.250	3-15/16
3	7.70	7.58	.216	3.500	3.068	8	4.000	4-1/16
3-1/2	9.25	9.11	.226	4.000	3.548	8	4.625	4-3/16
4	11.00	10.79	.237	4.500	4.026	8	5.200	4-5/16
5	15.00	14.62	.258	5.563	5.047	8	6.296	4-1/2
6	19.45	18.97	.280	6.625	6.065	8	7.390	4-11/16
6-5/8 OD	20.00	19.49	.288	6.625	6.049	8 R	7.390	7-1/4
7 OD	23.00	22.63	.317	7.000	6.366	8 R	7.657	7-1/4
8	25.55	24.70	.277	8.625	8.071	8	9.625	5-1/16
10	35.75	34.25	.307	10.750	10.136	8	11.750	5-9/16
12	45.45	43.77	.330	12.750	12.090	8	14.000	5-15/16
14 OD	57.00	54.57	.375	14.000	13.250	8	15.000	6-3/8
16 OD	65.30	62.58	.375	16.000	15.250	8	17.000	6-3/4
18 OD	73.00	70.59	.375	18.000	17.250	8	19.000	7-1/8
20 OD	81.00	78.60	.375	20.000	19.250	8	21.000	7-5/8
22 OD		114.81	.500	22.000	21.000			
24 OD		125.49	.500	24.000	23.000			
26 OD		136.17	.500	26.000	25.000			
28 OD		146.85	.500	28.000	27.000			
30 OD		157.53	.500	30.000	29.000			
32 OD		168.21	.500	32.000	31.000			
34 OD		178.89	.500	34.000	33.000			
36 OD		189.57	.500	36.000	35.000			

SECTION 2 - Section NR 112.25 is repealed.

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board on January 29, 1981.

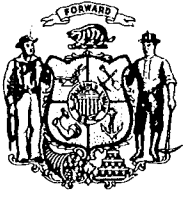
The rules contained herein shall take effect 90 days after publication .

Dated at Madison, Wisconsin April 27, 1981

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

By Carroll D. Besadry
Carroll D. Besadry, Secretary

(SEAL)



State of Wisconsin

DEPARTMENT OF NATURAL RESOURCES

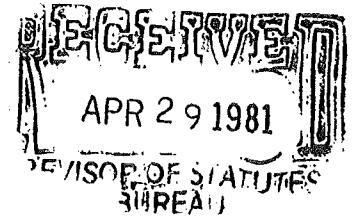
Carroll D. Besadny
Secretary

April 27, 1981

BOX 7921
MADISON, WISCONSIN 53707

IN REPLY REFER TO: 1020

Mr. Orlan L. Prestegard
Revisor of Statutes
411 West
C A P I T O L

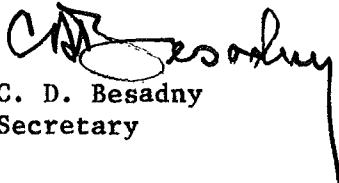


Dear Mr. Prestegard:

Enclosed are two copies, including one certified copy, of State of Wisconsin Natural Resources Board Order No. WQ-45-79. These rules were reviewed by the Assembly Committee on Environmental Resources and the Senate Committee on Agriculture and Natural Resources pursuant to s. 227.018, Stats. There were no comments.

You will note that this order takes effect after publication. Kindly publish it in the Administrative Code accordingly.

Sincerely,


C. D. Besadny
Secretary

Enc.