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REGULATIONS DIVISION

1 ENERGY AND ENVIRONMENT CABINET

2 Department for Environmental Protection

3 Division of Water

4 (Amendment)

5 401 KAR 6:001. Definitions for 401 KAR Chapter 6.

6 RELATES TO: KRS 223.400 through 223.460~~[223.400-223.460]~~, 223.991~~[-EO 2008-507,~~
7 ~~2008-531]~~

8 STATUTORY AUTHORITY: KRS 223.420(1)(e), 223.435, 224.10-100, 224.70-100, 224.70-
9 110

10 NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100, 224.70-100, and
11 224.70-110 authorize the cabinet to establish administrative regulations to protect water quality.

12 KRS 223.420 requires the cabinet to promulgate administrative regulations to carry out the
13 purposes of KRS 223.405 through 223.460. KRS 223.435 requires the cabinet to promulgate
14 administrative regulations establishing standards of practice for water well construction.~~[EO~~
15 ~~2008-507 and 2008-531, effective June 16, 2008, abolish the Environmental and Public~~
16 ~~Protection Cabinet and establish the new Energy and Environment Cabinet.]~~ This administrative
17 regulation is necessary to define terms used by the cabinet in 401 KAR Chapter 6.

18 Section 1. Definitions. (1) "Abandon" means to seal or plug a well or borehole to prevent entry
19 of surface water or contaminants and to prevent mixing of water from different water-bearing
20 formations.

1 (2) "Annular space" means the opening between a well-bore or excavation and the well cas-
2 ing or between an outer casing pipe and an inner casing pipe or liner pipe.

3 (3) "Aquifer" means a water-bearing formation that transmits water in sufficient quantity to
4 supply a well.

5 (4) "Base flood elevation" means the elevation of surface water resulting from a flood that
6 has a one percent (1%) chance of equaling or exceeding that level in any given year.

7 (5) "Bedrock" means a consolidated rock exposed at the surface of the earth or overlain by
8 unconsolidated materials or soils.

9 (6)~~(5)~~ "Bentonite" means a clay in the montmorillonite series with a predominance of
10 sodium as its major cation, having the property of expanding several times its original volume if
11 saturated, and used to seal or plug wells, well annuluses, and well bores.

12 (7)~~(6)~~ "Board" is defined by KRS 223.400(2).

13 (8)~~(7)~~ "Bridging" means the deliberate or accidental closing or plugging of a section of a
14 drill hole or annulus, beneath which is an open borehole or unfilled annulus.

15 (9) "Certified well driller" means a person who has met all requirements of 401 KAR 6:320
16 and to whom the cabinet has issued a well driller certificate.

17 (10) "Certified well driller assistant" means a person who has met all requirements of 401
18 KAR 6:320 and to whom the cabinet has issued a well driller assistant certificate.

19 (11)~~(8)~~ "Confining layers~~[zones]~~" and "confining formation" means a zone~~[body]~~ of
20 sufficiently low permeability~~[impermeable material]~~ as to impede the vertical migration of
21 groundwater.

22 (12)~~(9)~~ "Consolidated formation~~[formation]~~" means a geological rock formation that has
23 grains that are bonded together~~[is bedrock]~~.

1 (13)[(10)] "Construction" means all acts necessary for obtaining groundwater by wells,
2 including drilling or excavation of the well and installation or modification of casing, but
3 excluding the installation of permanent pumps and pumping equipment.

4 (14)[(11)] "Direct supervision" means that a certified water well driller shall oversee and
5 manage the work of the water well driller's assistant, including providing specific instruction
6 regarding the construction, modification, alteration, repair, and abandonment of a water well, but
7 the certified water well driller shall not be required to provide in-person supervision at the
8 drilling site.

9 (15)"Driller" means "water well driller" as defined by KRS 223.400(8).

10 (16)[(12)] "Drilling derived waste" or "DDW" means soils, drill cuttings, drilling fluids,
11 product-contaminated water, and decontamination rinsate.

12 (17)[(13)] "Finished ground surface" means the final or permanent elevation of the ground
13 surface at the site of the well or abandoned borehole.

14 (18)[(14)] "Grout-pipe method" means that grout is placed[~~emplaced~~] into the borehole or
15 annulus from bottom to top via gravity flow or by pumping through a pipe or funnel-like
16 apparatus[~~with a funnel or hopper-like top~~].

17 (19)[(15)] "High solids sodium bentonite" means bentonite containing a minimum of thirty
18 (30) percent solids.

19 (20)[(16)] "Impervious" means a material that will not permit the passage of water at a rate
20 greater than 1×10^{-7} centimeters per second (cm/sec).

21 (21)[(17)] "Modification" means a change, replacement, or alteration of the water well.

22 (22)[(18)] "Monitoring well" means a well constructed when[~~if~~] the actual or intended use in
23 whole or part is the removal of water for sampling, measuring, treating, or[~~test~~] pumping for

1 scientific, engineering, or regulatory purposes.

2 (23)[(19)] "Perched" means a region in the unsaturated zone separated from an underlying
3 aquifer where the materials are locally saturated because they overlie a confining layer.

4 (24) "Person" shall be defined by KRS 223.400(5)[~~["Natural person" means an individual~~
5 ~~person distinguished from a person as defined in KRS 224.01-010(17)].~~

6 (25)[(20)] "Pit" means a hole, shaft, or cavity in the ground.

7 (26)[(21)] "Pitless well adapter" means a device designed for attachment to one (1) or more
8 openings through a well casing.

9 (27)[(22)] "Pitless well unit" means an assembly that extends from the upper end of the well
10 casing to above the finished ground surface.

11 ~~(28)[(23)] "Perched" means a region in the unsaturated zone separated from an underlying~~
12 ~~aquifer where the materials are locally saturated because they overlie a low permeability unit.]~~

13 (29)[(24)] "Potable water" means water that meets the provisions of 401 KAR Chapter 8, the
14 quality of which is approved by the cabinet for human consumption.

15 (30)[(25)] "Sealing materials" means neat cement, cement-bentonite grout, or bentonite.~~[Drill~~
16 ~~cuttings are not sealing materials.]~~

17 (31)[(26)] "Special flood zone" means an area that is subject to a one percent (1%) or greater
18 chance of flooding in any given year.

19 (32) "Special well types" means a well that is:

20 (a) Bored;

21 (b) Driven;

22 (c) Irrigation; or

23 (d) Radial collector.

1 (33)[(26)] "Static water level" means the level at which water stands in a well when water is
2 not being taken from the aquifer either by pumping or by free flow.

3 (34)[(27)] "Unconsolidated formation" means a loose-grained, non-lithified geological
4 formation such as soil, sand, or gravel.

5 (35)[(28)] "Undesirable geologic formation" means a geologic formation with physical
6 characteristics or water quality not conducive to the construction and use of a well.

7 (36)[(29)] "Undesirable groundwater" means groundwater not suitable for human or animal
8 consumption, irrigation, manufacturing process water, or cooling.

9 (37)[(30)] "Water supply well" means "water well" or "well" as defined by KRS 223.400(7).

10 (38) "Water well driller's assistant" shall be defined by KRS 223.400. ~~(31) "Water supply~~
11 ~~well" means "water well" or "well" as defined by KRS 223.400(7).~~

12 (32)]

13 (39) "Well unsuitable for its intended use" means a well:

14 (a) The use of which has been permanently discontinued;

15 (b) That is in such a state of disrepair that it cannot be used to supply groundwater;

16 (c) That presents a health or safety hazard;

17 (d) From which usable groundwater is not obtainable; or

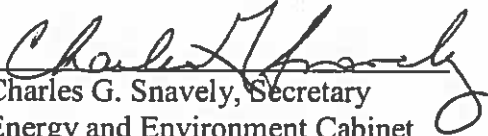
18 (e) With boreholes that:

19 1. Are dry;

20 2. Have caved in; or

21 3. Are unsuitable for further development and well construction.

401 KAR 6:001 Definitions for 401 KAR Chapter 6 is approved for filing.


Charles G. Snavely, Secretary
Energy and Environment Cabinet

7/9/2019
Date

PUBLIC HEARING AND PUBLIC COMMENT PERIOD: A public hearing on this administrative regulation shall be held on Thursday, August 22, 2019 at 6:00 p.m. Eastern Standard Time at the Department for Environmental Protection, Training Room B, 300 Sower Boulevard, Frankfort, Kentucky 40601. Individuals interested in being heard at this hearing shall notify this agency in writing by 5 workdays prior to the hearing of their intent to attend. If no notification of intent to attend the hearing is received by that date, the hearing may be canceled. This hearing is open to the public. Any person who wishes to be heard will be given an opportunity to comment on the proposed administrative regulation. A transcript of the public hearing will not be made unless a written request for a transcript is made. If you do not wish to be heard at the public hearing, you may submit written comments on the proposed administrative regulation. Written comments shall be accepted through August 31, 2019. Send written notification of intent to be heard at the public hearing, or written comments on the proposed administrative regulation, to the contact person.

Contact person: Carole J. Catalfo
Internal Policy Analyst, RPPS,
Division of Water, 3rd Floor
300 Sower Boulevard
Frankfort, Kentucky 40601
Phone (502) 564-3410
Fax (502) 564-9003
Email: water @ky.gov (Subject line: "Chapter 6 regulations")

REGULATORY IMPACT ANALYSIS AND TIERING STATEMENT

401 KAR 6.001

Contact Person: Carole J. Catalfo
Phone: (502) 782-6914
Email: water@ky.gov (Subject Line: "Chapter 6 regulations")

(1) Provide a brief summary of:

(a) What this administrative regulation does: This administrative regulation establishes definitions for terms used in 401 KAR Chapter 6.

(b) The necessity of this administrative regulation: This administrative regulation is necessary to define terms used in 401 KAR Chapter 6.

(c) How this administrative regulation conforms to the content of the authorizing statutes: KRS 224.10-100, 224.70-100, and 224.70-110 authorize the cabinet to establish administrative regulations to protect water quality. KRS 223.420 requires the cabinet to promulgate regulations to carry out the purposes of KRS 223.405 through 223.460. KRS 223.435 requires the cabinet to promulgate administrative regulations establishing standards of practice for water well construction.

(d) How this administrative regulation currently assists or will assist in the effective administration of the statutes: This administrative regulation provides definitions for terms used throughout 401 KAR Chapter 6 for proper interpretation and enforcement.

(2) If this is an amendment to an existing administrative regulation, provide a brief summary of:

(a) How the amendment will change this existing administrative regulation: The amendment clarifies statutory authority, clarifies the terms "abandon", "aquifer", "confining layers", "consolidated formation", "finished ground surface", "grout-pipe method", "monitoring well", "person", and "unconsolidated formation", and adds definitions for "base flood elevation", "certified well driller", "certified well driller's assistant", "direct supervision", "special flood zone", "special well types", "water well driller's assistant".

(b) The necessity of the amendment to this administrative regulation: The amendment to this administrative regulation is necessary for clarification of terms used in 401 KAR Chapter 6 required by Senate Bill 32 of the 2019 legislative session which amended KRS 223.400 through 223.460.

(c) How this administrative regulation conforms to the content of the authorizing statutes: KRS 224.10-100, 224.70-100, and 224.70-110 authorize the cabinet to establish administrative regulations to protect water quality. KRS 223.420 requires the cabinet to promulgate regulations to carry out the purposes of KRS 223.405 through 223.460. KRS 223.435

requires the cabinet to promulgate administrative regulations establishing standards of practice for water well construction.

(d) How the amendment will assist in the effective administration of the statutes: The amendment clarifies ten (10) definitions, and adds three (3) definitions.

(3) List the type and number of individuals, businesses, organizations, or state and local governments affected by this administrative regulation: This administrative regulation affects approximately 1000 water well owners per year, approximately 200 certified water well drillers and potentially 400 well driller assistants, and as many as 300 drilling/consulting companies. This administrative regulation also affects the Kentucky Division of Water, Kentucky Water Well Certification Board, and the Kentucky Ground Water Association.

(4) Provide an analysis of how the entities identified in question (3) will be impacted by either the implementation of this administrative regulation, if new, or by the change, if it is an amendment, including:

(a) List the actions that each of the regulated entities identified in question (3) will have to take to comply with this administrative regulation or amendment: This administrative regulation establishes definitions only. No further actions will be needed to comply.

(b) In complying with this administrative regulation or amendment, how much will it cost each of the entities identified in question (3): This administrative regulation establishes definitions only. No additional costs will be incurred to comply with this administrative regulation.

(c) As a result of compliance, what benefits will accrue to the entities identified in question (3): Affected entities will have clear definitions for understanding the terms used throughout 401 KAR Chapter 6.

(5) Provide an estimate of how much it will cost the administrative body to implement this administrative regulation:

(a) Initially: This administrative regulation will not result in additional costs.

(b) On a continuing basis: This administrative regulation will not result in additional costs.

(6) What is the source of the funding to be used for the implementation and enforcement of this administrative regulation: This administrative regulation establishes definitions only. No changes in funding are necessary.

(7) Provide an assessment of whether an increase in fees or funding will be necessary to implement this administrative regulation, if new, or by the change if it is an amendment: This administrative regulation establishes definitions only. No changes in fees or funding will be

necessary.

(8) State whether or not this administrative regulation established any fees or directly or indirectly increased any fees: This administrative regulation does not establish any fees directly or indirectly.

(9) TIERING: Is tiering applied? (Explain why or why not) Tiering is not applied because definitions do not require tiering.

FISCAL NOTE ON STATE OR LOCAL GOVERNMENT

401 KAR 6:001

Contact Person:

Carole J. Catalfo

Phone: (502) 782-6914

Email: water@ky.gov (Subject Line: "Chapter 6 regulations")

(1) What units, parts, or divisions of state or local government (including cities, counties, fire departments, or school districts) will be impacted by this administrative regulation? This administrative regulation will impact the Kentucky Division of Water and any division of state or local government that may employ a certified water well driller and well driller's assistant.

(2) Identify each state or federal statute or federal regulation that requires or authorizes the action taken by the administrative regulation. KRS 224.10-100, 224.70-100, and 224.70-110 authorize the cabinet to establish administrative regulations to protect water quality. KRS 223.420 requires the cabinet to promulgate regulations to carry out the purposes of KRS 223.405 through 223.460. KRS 223.435 requires the cabinet to promulgate administrative regulations establishing standards of practice for water well construction.

(3) Estimate the effect of this administrative regulation on the expenditures and revenues of a state or local government agency (including cities, counties, fire departments, or school districts) for the first full year the administrative regulation is to be in effect.

(a) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for the first year? This administrative regulation establishes definitions only and will not generate revenue.

(b) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for subsequent years? This administrative regulation establishes definitions only and will not generate revenue.

(c) How much will it cost to administer this program for the first year? This administrative regulation establishes definitions only and will not result in additional costs.

(d) How much will it cost to administer this program for subsequent years? This administrative regulation establishes definitions only and will not result in additional costs.

Note: If specific dollar estimates cannot be determined, provide a brief narrative to explain the fiscal impact of the administrative regulation.

Revenues (+/-): NA

Expenditures (+/-): NA

Other Explanation: This administrative regulation establishes definitions only and will not result in additional revenue or costs.

FEDERAL MANDATE ANALYSIS COMPARISON

401 KAR 6:001

Contact Person:

Carole J. Catalfo

Phone: (502) 782-6914

Email: water@ky.gov (Subject Line: "Chapter 6 regulations")

1. Federal statute or regulation constituting the federal mandate. There is no federal mandate regarding well construction.

2. State compliance standards. KRS 223.420(1)(e), 223.435, 224.10-100, 224.70-100, 224.70110

3. Minimum or uniform standards contained in the federal mandate. There is no federal mandate regarding well construction.

4. Will this administrative regulation impose stricter requirements, or additional or different responsibilities or requirements than those required by the federal mandate? There is no federal mandate regarding well construction.

5. Justification for the imposition of the stricter standard, or additional or different responsibilities or requirements. There is no federal mandate regarding well construction.