STATEMENT OF CONSIDERATION
RELATING TO:

401 KAR 6:001 (Amended After Comments)
401 KAR 6:211 (Not Amended After Comments)
401 KAR 6:310 (Amended After Comments)
401 KAR 6:320 (Amended After Comments)
401 KAR 6:350 (Amended After Comments)

Energy and Environment Cabinet
Department for Environmental Protection
Division of Water

I. The public hearing for proposed amendments to 401 KAR 6:001, 6:211, 6:310, 6:320, and 6:350 was held on August 22, 2019 at 6:00 p.m. at 300 Sower Boulevard, Training Room B, Frankfort, Kentucky. The Division of Water also received written comments regarding these administrative regulations.

II. The following people submitted comments:

<table>
<thead>
<tr>
<th>Name and title</th>
<th>Agency/Organization/Entity/Other</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>R.T. Hendricks</td>
<td>Private citizen</td>
<td>Written</td>
</tr>
</tbody>
</table>

III. The following people from the promulgating administrative body responded to the comments:

Peter T. Goodmann, Director, Division of Water
John Webb, Manager, Watershed Management Branch, Division of Water
David Jackson, Supervisor, Groundwater Section, Division of Water

IV. Summary of Comments and Responses for 401 KAR 401 KAR 6:350.

(1) Subject Matter: Changes to well specifications. (401 KAR 6:350)
   (a) Commenter: R.T. Hendricks
      Comment: Section 1(3)(c), Page 2, Lines 21 to 23. This section could be interpreted to mean that the certified well driller, without cabinet approval, can approve changes to well specifications that will be implemented by the driller’s assistant. The text should be clarified to reflect that changes to well specifications shall be approved in advance by the cabinet.
      (b) Response: The cabinet does not concur. The language acknowledges that drilling conditions may require on-site modification to ensure compliance with regulations and
specifications, and makes clear that well driller assistants do not have authority to make on-site modifications. The language does not give well drillers authority to make on-site modifications that fall outside the requirements of 401 KAR Chapter 6, other regulatory requirements, or pre-approved specifications, nor does the language preclude other agencies from imposing other regulatory requirements or specifications.

(2) Subject Matter: Solvent-glued joints. (401 KAR 6:350)
   (a) Commenter: R.T. Hendricks
       Comment: Section 7, pages 12 to 13. This section should be clarified to specifically prohibit the use of solvent-glued joints in monitoring wells, especially at sites that monitor for volatile organic compounds. Solvent-glued joints can introduce contaminants into the well, and if improperly executed, are more likely to leak than o-ring-sealed joints.
       (b) Response: While the regulation does not allow those materials to be used in monitoring wells, the cabinet has added language at page 13, Section 7(2)(a)1. for clarification.

(3) Subject Matter: Bentonite grout. (401 KAR 6:350).
   (a) Commenter: R.T. Hendricks
       Comment: Section 7(4), page 14. This section should be clarified to explicitly state that either pure, high-solids bentonite grout or cement / bentonite grout may be used as sealing material in constructing or abandoning monitoring wells. It should also state that bentonite drilling mud is unacceptable for use as a sealing material.
       (b) Response: The cabinet does not concur. The regulation already requires high solids sodium bentonite pellets for bentonite seals. Additionally, “sealing materials”, as defined by 401 KAR 6:001, Section 1(30), clearly establishes the parameters of acceptable sealing materials.

(4) Subject Matter: Use of PVC. (401 KAR 6:350).
   (a) Commenter: R.T. Hendricks
       Comment: Section 8(1)(a), page 16. PVC is a poor material to use to construct protective surface casings. Industry publications show that UV light causes a loss of impact resistance to PVC pipe. Moreover, PVC casings are not chemically and physically resistant to fire, which is a common occurrence at a number of waste sites or facilities. Finally, PVC is more susceptible to damage from vandalism than steel or aluminum. PVC should therefore be removed from the list of materials that are acceptable for protective surface casings.
       (b) Response: The cabinet does not concur. It is the responsibility of the well owner to maintain a well and its appurtenances.

   (a) Commenter: R.T. Hendricks
       Comment: Section 8(2), page 17, lines 1 through 15. This section should clarify that bumper guards shall not be installed within or in contact with the concrete surface pad. Bumper guards that are installed within or in contact with the pad, when struck by vehicles or equipment, can cause the pad to shift, damaging the well beyond repair.
       (b) Response: The cabinet acknowledges the comment. It is the responsibility of the well owner to maintain a well and its appurtenances.

(6) Subject Matter: Modifications to well casings. (401 KAR 6:350)
(a) Commenter: R.T. Hendricks
Comment: Section 10, page 18, lines 2 through 5. This section could be interpreted to mean that the certified well driller could approve repairs or modifications to well casings without cabinet approval. This should be clarified to reflect that cabinet approval is necessary prior to such repairs or modifications.

(b) Response: The cabinet does not concur. The language acknowledges that drilling conditions may require on-site modification to ensure compliance with regulations and specifications, and makes clear that well driller assistants do not have authority to make on-site modifications. The language does not give well drillers authority to make on-site modifications that fall outside the requirements of 401 KAR Chapter 6, other regulatory requirements, or pre-approved specifications, nor does the language preclude other agencies from imposing other regulatory requirements or specifications.

(7) Subject Matter: Concrete pad and bumper guards. (401 KAR 6:350)
(a) Commenter: R.T. Hendricks
Comment: Section 11(2)(a), page 19, lines 5 to 6. The text should be modified to reflect that the concrete pad and bumper guards shall be removed when abandoning wells.

(b) Response: The cabinet does not concur. Whether concrete pads and bumper guards are removed when a well is abandoned is a function of the responsible party provided all other requirements are met.

(8) Subject Matter: Bentonite grout. (401 KAR 6:350)
(a) Commenter: R.T. Hendricks
Comment: Section 11(2)(b), page 19, lines 7 to 9. This should be clarified to explicitly state that either bentonite grout or cement / bentonite grout may be used as sealing material in abandoning monitoring wells. It should also state that bentonite drilling mud is unacceptable for use in the abandonment of monitoring wells.

(b) Response: The cabinet does not concur. The regulation already requires high solids sodium bentonite pellets for bentonite seals. Additionally, “sealing materials”, as defined by 401 KAR 6:001, clearly establishes the parameters of acceptable sealing materials.

(9) Subject Matter: Bentonite pellets or chips. (401 KAR 6:350)
(a) Commenter: R.T. Hendricks
Comment: Section 11(2)(c), page 19, lines 10 and 11. This language should be modified to reflect that it is referring to bentonite pellets or chips.

(b) Response: The cabinet does not concur. The language of Section 11(2)(c)1. At Line 13 establishes the “minimum particle size” of bentonite to be used.

(10) Subject Matter: Permitting programs. (401 KAR 6:350).
(a) Commenter: R.T. Hendricks
Comment: Section 12. Virtually all monitoring wells at waste management sites have been approved for construction according to very specific permit requirements related to siteselective conditions. Deviation from those requirements may result in permit violations and/or monitoring wells that are unsuitable for their intended purpose. The modifications made to this section make the regulation vague. The “cabinet” is a broad governmental agency that regulates a variety of things from air quality to hazardous waste. The word “cabinet” in this section could
be interpreted to mean someone other than a person of authority in the relevant permitting program. If the regulation were interpreted literally, a person in another program could presumably authorize changes to DWM-regulated wells. This section should clearly state that the relevant permitting program must approve all monitoring well designs and materials in advance of well installation and abandonment.

(b) Response: The cabinet does not concur. The Section is clearly entitled “Division of Waste Management Program Requirements” and refers to the relevant statutes for program-specific requirements. Additionally, the cabinet is the promulgating body and encompasses the relevant agencies. This language prevents the necessity of opening regulations each time the cabinet, its agencies, or its programs are either renamed or reorganized.

V. Summary of Action taken by Promulgating Agency

In response to public comments, the cabinet is amending 401 KAR 10:001, 10:026, 10:029, 10:030, and 10:031 as follows:


Page 1
RELATES TO
Line 6
After “KRS 223.400”, insert a dash.
Delete “through”.

Page 1
NECESSITY, FUNCTION, AND CONFORMITY
Lines 16 and 17
After “This administrative regulation”, insert “establishes definitions for”
Delete “is necessary to define”.

Page 2
Section 1(4)
Line 6
After “has a one”, insert “(1)”.
After “percent”, delete “(1%)”.

Page 2
Section 1(11)
Line 19
After “(11) “Confining layers””, insert “or”.
Delete “and”.

Page 3
Section 1(13)
Line 1
After “(13) “Construction””, insert “: (a)”.
Capitalize the first letter of “means”.

**Lines 2 and 3**
After “modification of casing”, insert the following:

: and

(h) Does not mean
Delete “, but excluding”.

**Page 3**
**Section 1(14)**
**Lines 4 and 5**
After “water well driller”, insert “oversees and manages”.
Delete “shall oversee and manage”.

**Line 7**
After “water well driller”, insert “is not”.
Delete “shall not be”.

**Page 4**
**Section 1(22)**
**Line 22**
After “a well constructed”, insert “if”.
Delete “when”.

**Page 4**
**Section 1(29)**
**Line 13**
After “means water that”, insert “complies with the requirements”.
Delete “meets the provisions”.

**Page 4**
**Section 1(31)**
**Line 17**
After “subject to a one”, insert “(1)”.
After “percent”, delete “(1%)”.

**Page 5**
**Section 1(38)**
**Line 10**
After “well driller’s assistant”, insert “is”.
Delete “shall be”.
After “KRS 223.400”, insert “(9)”.

401 KAR 6:310. Water supply well construction practices and standards.

**Page 1**
**RELATES TO**
**Line 6**
After “KRS 223.400”, insert a dash. Delete “through”.

Page 2
Section 1(2)
Line 2
After “work under the”, insert quotation marks around “direct supervision”.

Page 2
Section 1(3)
Line 4
After “Well specifications shall”, insert “be”.

Page 2
Section 1(3)(a)
Line 5
After“(a)”, delete “Be”. Capitalize the first letter of “provided”. After “well driller’s assistant”, delete “, as required”.
Line 6
After “under”, insert quotation marks around “direct supervision” and insert “as” before “defined by”.

Page 2
Section 1(3)(b)
Line 15
After“(b)”, delete “Shall be”. Capitalize the first letter of “recorded”. After “Well Construction Record”, insert a comma.

Page 2
Section 1(3)(b)2.
Lines 18 and 19
After “by the cabinet.”, insert “(4)”. Delete “(c)” Renumber the remainder of the Section.

Page 5
Section 1(8)(c)1.
Line 23
After “of this subsection”, insert “could”. Delete “may”.

Page 7
Section 1(8)(f)1.
Line 2
After “for the parameters”, insert “stated”. Delete “specified”.

Page 9
Section 2(2)(f)1.b.
Line 2
After “Impact Classification of IC-1”, insert “in accordance with A.S.T.M. Standard F480-14”.

Page 10
Section 2(4)(e)2.
Line 19
After “Impact Classification of IC-1”, insert “in accordance with A.S.T.M. Standard F480-14”.

Page 11
Section 2(4)(e)3.a.
Line 4
After “and SCH 80;”, insert “and”.

Page 12
Section 3(2)(a)
Lines 4 and 5
After “the manufacturer’s specifications”, insert “and this subsection”.

Page 12
Section 3(2)(e)
Line 15
After “or granular form.”, insert “1.”.

Page 12
Section 3(2)(e)
Lines 17 and 19
Renumber subparagraphs 1. and 2. as clauses a. and b., respectively.

Page 12
Section 3(2)(e)1.
Line 18
After “and prevent bridging”, insert “and”.

Page 12
Section 3(2)(e)2. and 3.
Lines 20 and 21
After “chips, or granules”, insert “, 2.”. Delete “; and 3.”.
Page 13
Section 4(1)
Line 7
After “health and safety”, insert a semicolon.
Delete the period.

Page 13
Section 4(2)(b)
Line 12
After “to a well”, insert a semicolon.
Delete the period.

Page 13
Section 4(3)
Line 14
After “of the aquifer”, insert a semicolon.
Delete the period.

Page 14
Section 4(4)(b)
Line 1
After “frost-free hydrant”, insert a semicolon.
Delete the period.

Page 14
Section 4(5)(b)
Line 4
After “into the environment”, insert “and”.
Delete the period.

Page 21
Section 7(5)(a)3.
Line 19
After “in subparagraph 2”, insert “of this paragraph”.

Page 23
Section 8(1)(c)2.
Line 23
After “refill pipes shall”, delete the colon.

Page 24
Section 8(1)(c)2.
Line 1
After “ground surface,”, insert “shall be”.
Delete “are”.
After “watertight cap, and”, insert “shall be”.
Delete “are”.

Page 28
Section 9(3)
Line 9
After “in this”, insert “subsection”.
Delete “paragraph”.

Page 28
Section 9(d)(a)2.
Lines 14 and 15
After “in this subparagraph”, insert a period
Delete the semicolon.

Page 28
Section 9(3)(a)2.a.
Line 16
After “inch-diameter well,”, insert “there shall be”.

Page 28
Section 9(3)(a)2.b.
Line 19
After “inch-diameter well,”, insert “there shall be”.

Page 28
Section 9(3)(a)2.c.
Line 22
After “inch-diameter well,”, insert “there shall be”.

Page 29
Section 9(3)(a)2.d.
Line 2
After “inch-diameter well,”, insert “there shall be”.

Page 29
Section 9(3)(b)1. through 3.
Lines 6, 9, and 10
After the text of each subparagraph, insert a semicolon and delete each period.

Page 29
Section 9(3)(b)4.
Line 12
After “all chlorinated water”, insert “and”.
Delete the period.

Page 30
Section 10(2)(b)
Line 22
After “(b)”, insert “If”.
Delete “When”.

Page 35
Section 11(7)(b)
Line 22
After “(b)”, capitalize the first letter of “artesian”.

Page 36
Section 11(8)(a)
Line 4
After “shall be removed”, insert a comma.

401 KAR 6:320 Certification of water well drillers and water well driller assistants.

Page 1
RELATES TO
Line 6
After “KRS 223.400”, insert a dash.
Delete “through”.

Line 7
After “224.10-410”, insert a dash.
Delete “through”.

Page 1
NECESSITY, FUNCTION, AND CONFORMITY
Lines 16 and 17
After “This administrative regulation”, insert “establishes provisions”.
Delete “provides”.

Page 2
Section 1(2)(a)
Line 6
After “wells that shall”, insert “state”.
Delete “specify”.

Page 2
Section 1(2)(b)
Line 17
After “wells that shall”, insert “state”.
Delete “specify”.

Page 3
Section 1(4)
Lines 10 and 11
After "method or methods", insert "stated". Delete "specified".

Page 3
Section 1(5)
Lines 13 and 14
After "method or methods", insert "stated". Delete "specified".

Page 5
Section 2(1)(e)2.b.(iii)
Line 4
After "a graduate," insert "bachelor’s". Delete "bachelors". After "bachelors or", insert "associate". Delete "associates".

Page 5
Section 2(2)
Line 6
After "to the cabinet", insert "and". Delete "which".

Page 9
Section 4(3)(b)2.
Line 17
After "with numbers that", insert "shall be". Delete "are".

Page 10
Section 6(2)
Line 13
After "disciplinary action shall", insert "be as". Delete "take the form of sanctions".

Page 11
Section 6(3)(c)1.
Line 9
After "1. Decide whether", insert "or not".

Line 10
After "and supporting facts;", insert "and".

Page 12
Section 6(7)
Line 7
After "KRS 224.10-420(2)", insert "and 400 KAR 1:100".

Page 13
Section 7(4)(b)2.
Line 3
After "requirements established in", lowercase the first letter of "Subsection".

Page 13
Section 7(5)(a)
Line 8
After "drillers shall complete", insert "a minimum of".

Page 13
Section 7(5)(d)
Lines 16 and 17
After "shall obtain written", insert "confirmation".
Delete "approval".
After "from the cabinet", insert the following:
that a continuing education training course has been approved by the cabinet
Line 17
After "continuing education training", insert "course".

Page 13
Section 7(5)(e)
Lines 20 and 21
After "of this subsection.", insert "(f)".
Delete "(d)".


Page 1
RELATES TO
Line 6
After "KRS 223.400", insert a dash.
Delete "through".
Line 7
After "224.43-010", insert a dash.
Delete "through".
After "224.46-012", insert a dash.
Delete "through".
Lines 7 and 8
After "224.60-100", insert a dash.
Delete "through".

Page 1
NECESSITY, FUNCTION, AND CONFORMITY
Line 14
After "223.435 requires the", lowercase the first letter of "Secretary" and "Cabinet".

Page 2
Section 1(2)
Line 4
After "work under the", insert quotation marks around "direct supervision".

Page 2
Section 1(3)(a)
Lines 7 and 8
After "as required under", insert an opening quotation mark.
Line 8
After "direct supervision", insert "as".

Page 2
Section 1(3)(b)
Line 17
After "Well Construction Record", insert a comma.

Page 3
Section 1(6) and (7)
Lines 15 and 18
After "(6)", delete the notation, "(7)".

Page 4
Section 1(7) and (8)
Lines 2 and 3
After "and Plugging Record.", insert "(7)".
Delete "(8)".

Page 9
Section 3(2)(c)
Line 4
After "established in this", insert "paragraph:"
Delete "subsection.".

Page 9
Section 3(3)(a)
Line 14
After "established in Section", insert "1(7)"
Delete "1(8)".

Page 9
Section 3(4)(a)
Line 20
After “method is used”, insert a comma.

Page 11
Section 5(3)(a)
Line 12
After “the well casing”, insert a period.
Delete the semicolon.

Page 11
Section 5(3)(b)
Line 14
After “the static water level”, insert a period.
Delete “; and”.

Page 12
Section 6(3)
Line 6
After “be properly abandoned”, insert the following:
“; as established in Section 11 of this administrative regulation.”

Page 13
Section 7(2)(a)1.
Line 14
After “couplings shall be”, insert “a threaded”.
After “flush”, insert “joint design”.
Delete “type”.

Page 14
Section 7(2)(b)1.
Line 9
After “1.”, insert “a.”.

Page 14
Section 7(2)(b)1. and 2.
Lines 9 and 10
After “prevents bridging; and”, insert “b.”.
Delete “2.”.

Page 14
Section 7(2)(b)2. and 3.
Lines 11 and 12
After “method; or”, insert “2.”.
Delete “3.”.

Page 16
Section 8(1)(d)4.a.
Line 19
    After “for drainage”, insert a period.
    Delete the semicolon.

Page 17
Section 9(2)
Line 23
    After “protocol established in”, insert “subsection (1)”.
    Delete “paragraph 1 of this”.
    Lowercase the first letter of “Section”.

Page 18
Section 11(1)(a)
Line 8
    After “monitoring well”, delete the comma.
    After “shall be abandoned”, insert the following:
    within thirty (30) days from the

Page 18
Section 11(1)(a)1.
Line 9
    After “1.”, delete the following:
    “Within thirty (30) days from the”
    Capitalize the first letter of “last”.

Page 18
Section 11(1)(a)2.
Line 10
    After “2.”, delete the following:
    “Within thirty (30) days from the”
    Capitalize the first letter of “date”.

Page 19
Section 11(2)(c)1.
Line 13
    After “three-eighths (3/8) inch”, insert a semicolon.
    Delete the comma.

Page 19
Section 11(2)(e)
Line 20
    After “established in Section”, insert “1(7)”.  
    Delete “1(8)”. 

Page 20
Section 12(1)
Line 2
After "224.1-405", insert a comma.