Recent Changes to the Missouri Well Construction Rules (MWCR)

MWCC 2019

Justin Davis
Well Installation Section
Missouri Geological Survey
Outline

• Background

• Summary of rule changes by chapter and well type

• Focus on changes to monitoring well construction and plugging

• Questions
Background

• Red Tape Reduction initiative
  – 18 month process
  – 7 stakeholder meetings
  – 1 public hearing
  – Numerous comments

• Rule changes effective February 28, 2019
## Background

**Missouri Well Construction Rules:**
Code of State Regulations
Title 10, Division 23

<table>
<thead>
<tr>
<th>Rules:</th>
<th>47</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rescissions:</td>
<td>16</td>
</tr>
<tr>
<td>Amendments:</td>
<td>28</td>
</tr>
<tr>
<td>Restrictive term removal:</td>
<td>51% (497/975)</td>
</tr>
</tbody>
</table>
Background

• One of the largest modifications to these rules in over 20 years
• Reorganized to be more user friendly
• Removed unnecessary language
• Removed unnecessary burdensome restrictions
• Adapted to drilling and well construction advancements
• Improved groundwater protection
Summary of Rule Changes

• Rule changes effective February 28, 2019
• Some rescinded requirements still exist in statute
  – “Water Well Driller’s Act” 256.600-256.640 RSMo
• Some requirements have been consolidated
Summary of Rule Changes

Chapter 1 – Definitions, Variances, and Permitting Requirements
Chapter 2 – Fee Structure, Certification, and Registration
Chapter 3 – Water Well Construction Code
Chapter 4 – Monitoring Well Construction Code
Chapter 5 – Heat Pump Construction Code
Chapter 6 – Test Hole Construction Code
Chapter 1
Definitions, Variances and Permitting

• Definitions: from all chapters have been moved to Chapter 1

• Completion Date
  • Monitoring wells – the date the riser, screen, and surface completion is installed;
  • Temporary monitoring well plugging – the date the first well is plugged
MWCR Chapter 1
Definitions, Variances and Permitting

• **Geotechnical well or boring** – a monitoring well used to collect or evaluate subsurface data to determine the properties of geologic materials such as type, chemical composition, compressibility, strength, or structure. This does not include geotechnical borings for construction foundation data.

• **Soil boring** – a monitoring well used to sample or test the soil strata to determine soil properties such as type, chemical composition, compressibility, strength, structure, or concentration of contaminants.
Primary contractor – a person engaged for compensation in the business of the construction, alteration, major reconstruction, pump service, or plugging of any well or directs or supervises these activities. The primary contractor is equally responsible for the work performed by the installation contractor, including, but not limited to, the submittal of all forms and fees.

Primary contractors must hold a restricted permit
MWCR Chapter 1
Definitions, Variances and Permitting

• Permits:
  • Restricted permits are required for persons to be a primary contractor and/or on-site drilling supervisor

• Variances:
  • Variance requests submitted 48 hours in advance
Chapter 2
Fee Structure, Certification, and Registration

• Certification and registration reporting requirement rescinded, but still present in statute 256.614.1, RSMo.
MWCR Chapter 3
Water Well Construction Code

• Setback distances
  • Animal Feeding Operations (AFO) – 100 feet
  • Pressurized sewer line – 100 feet
  • Non-pressurized sewer line – 25 feet
  • Solid waste disposal area, sanitary landfill, special waste landfill, utility waste landfill, waste stabilization pond (lagoon), or hazardous waste treatment, storage, or disposal facility – 1000 feet
MWCR Chapter 3
Water Well Construction Code

- Grouting methods when driving casing
- Liner installation changes
- Multifamily wells limited to eight (8) connections
- Construction changes in specific Drill Areas
- Dry holes plugged within thirty (30) days
- Removed certain variance requirements
MWCR Chapter 3
Water Well Construction Code

- Decreased grout amount for plugging shallow unconsolidated material wells
- Drilling water shall be potable
- Lubricants must be non toxic
- May not leave incomplete well or open borehole
- Allowance for inactive wells in certain circumstances
MWCR Chapter 4
Monitoring Well Construction Code

• Monitoring wells shall be constructed so that aquifer mixing does not occur and **may not be screened through the soil-bedrock horizon** unless advanced written approval is obtained from the department.

• Protective posts are required for above-ground completed monitoring wells in traffic areas.

• Well ID or number printed on surface completions
MWCR Chapter 4
Monitoring Well Construction Code

Plugging changes:
• Riser and screen may be left in place
• Plug full length with grout and cut off riser pipe and/or casing two feet (2') below ground surface
• Flush mount completions in paved areas may be left in place and filled with asphalt or concrete

Temporary Monitoring Wells:
• Must be plugged within 30 days of completion
• Plugging report reports for temporary monitoring wells shall be submitted within 180 days of the first well plugged
• Temp. MW construction certification report is not required
Closed Loop Heat Pump Rules:
• Jetted Heat Pump Wells - Removed depth restriction of 75’ for Drilling Area 5.

Open Loop Heat Pump Rules:
• Supply and return wells shall be constructed to domestic/multifamily well standards if they produce less than 70 gallons per minute
• Supply and return wells shall be constructed to high yield well standards if they produce greater than 70 gallons per minute
Plugging methods have been made the same for:
- Test holes with no surface casing;
- Test holes with removable surface casing pipe;
- Test holes with grouted nonremovable surface casing;

Test holes drilled to expand surface mining operations that will be destroyed within one (1) year and clay mining test holes that do not penetrate beneath an impermeable fire clay deposit shall have a ten foot (10') surface grout plug and are exempt from plugging registration requirements.
Keep up to date with GovDelivery

Well Installation Section
573-368-2165

https://dnr.mo.gov/geology/geosrv/wellhd/index.html

Thank You