

# Recent Changes to the Missouri Well Construction Rules (MWCR)

## MWCC 2019

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# 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

<b>Rules:</b>	<b>47</b>
Rescissions:	16
Amendments:	28
Restrictive term removal:	51% (497/975)

# 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- Some rescinded requirements still exist in statute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.

# MWCR Chapter 1

## Definitions, Variances and Permitting

- **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

# MWCR Chapter 5

## Heat Pump Construction Code

### 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

# MWCR Chapter 6

## Test Hole Construction Code

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.



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