

Land Application of Industrial Wastewater and Wastewater Treatment Residuals

Owen Gallagher
Special Projects Coordinator
MDNR, Water Pollution Control Branch
2025 REGFORM Water Seminar, 07/30/2025

Where are we now?

- Rulemaking in progress
 - RIR PN ended April 14, 2025
 - Rule PN:
 - August 15, 2025 – September 23, 2025
- CWC meeting November 5, 2025

• How did we get here?

**PUBLIC NOTICE OF REGULATORY
IMPACT REPORT FOR
WATER PROTECTION PROGRAM
RULES IN DEVELOPMENT**

The Missouri Department of Natural Resources has published a Regulatory Impact Report (RIR) for proposed revisions to the Missouri Clean Water Commission regulation listed below. The report is required for rules prescribing environmental standards or conditions. A public comment period for this report is open April 14, 2025, through June 13, 2025.

The Beginning - The Identification of a Problem

Springfield **News-Leader**

**Taney County officials got no notice
that Arkansas hog waste was spread
on Missouri ranch**



Wes Johnson

Springfield News-Leader

March 15, 2020, 11:00 p.m. CT

The Beginning – The Identification of a Problem

Springfield **News-Leader**

Taney County officials got no notice that Arkansas hog waste was spread on Missouri ranch



Wes Johnson

Springfield News-Leader

March 15, 2020, 11:00 p.m. CT

Industrial wastewater pond used for fertilizer causing strong odor near Fairview, Mo.

Missouri DNR says the lagoon is in compliance with all state guidelines

By **Michael Van Schoik**

Published: Jan. 7, 2022 at 10:35 PM CST



The Beginning - The Identification of a Problem

Springfield News-Leader

Taney County officials say that Arkansas is on Missouri's radar.



Wes Johnson

Springfield News-Leader

March 15, 2020, 11:00 p.m. CT

CASSVILLE Democrat

COVERING BARRY COUNTY, MO., LIKE THE MORNING DEW SINCE 1871

Something smells in Barry County

FEBRUARY 1, 2023 / NEWS

Strong odor near Fairview, Mo.

Missouri DNR says the lagoon is in compliance with all state guidelines

By **Michael Van Schoik**

Published: Jan. 7, 2022 at 10:35 PM CST



The Beginning - The Identification of a Problem

Springfield News-Leader

Taney County
that Arkansas
on Missouri



Wes Johnson
Springfield News-Leader

March 15, 2020, 11:00 p.m. C



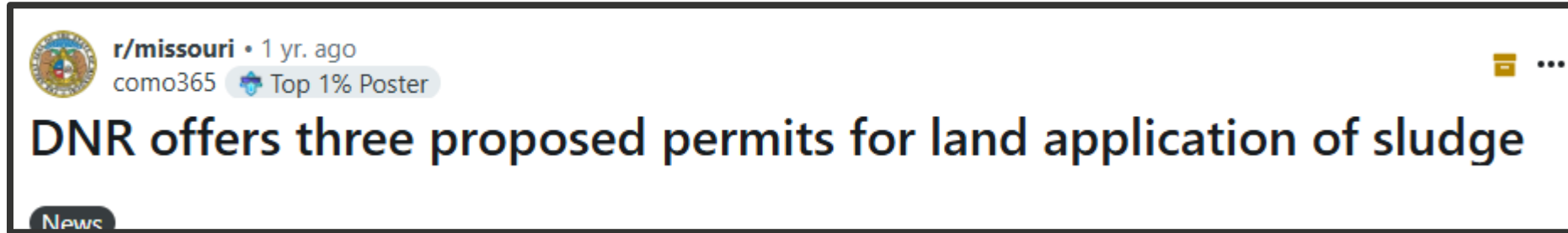
County

**for fertilizer
Mo.**

Why Does This Matter?

Greater Attention

Reddit Groups



Facebook Groups



Greater Attention

Followed this guy all the way from racoon in Stella to granby.



Image from Facebook group of Denali truck on road

Hydro Ag spreading near Tiff City this morning. Doesn't smell quite as bad as what Denali use to spread in the same area. Not sure what it is, but it has attracted a lot of buzzards.



Video capture of land application in process

Greater Attention

- Greater public attention of land application led to:
 - Greater awareness of land application practices
 - Increased scrutiny of current Missouri Regulations
 - More public engagement in permitting process
- Lawsuits



Why Does This Matter?

Department Meetings and Legislator Interest

- Department reviews permits and issues NOVs
 - Increased reported violations = increased boots on the ground
- December 2023, HB 2134/SB 1956 pre-filed

SECOND REGULAR SESSION
[TRULY AGREED TO AND FINALLY PASSED]
SENATE SUBSTITUTE FOR
SENATE COMMITTEE SUBSTITUTE FOR
HOUSE COMMITTEE SUBSTITUTE FOR
HOUSE BILL NOS. 2134 & 1956
102ND GENERAL ASSEMBLY

4407S.12T

2024

Sponsored by:
Rep. Dirk Deaton, Republican, District 159
Southwest Missouri
Rep. Ed Lewis, Republican, District 006
Northern Missouri

Changes to Current Processes

- HB 2134/SB 1956 in direct response to public awareness and outcry
 - Billed signed July 9, 2024
- Required DNR to revise 10 CSR 20-6.015
 - Public meetings began April 2024
 - Some attended by legislators
- **While current processes changed, stakeholder attention has not**

New (and Old) Expectations

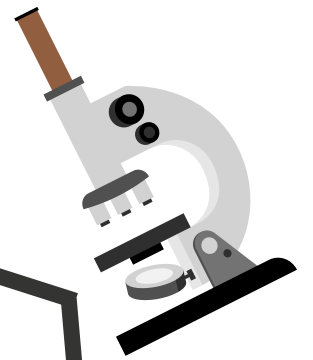
- Lawsuit filed 2024
 - Acknowledged the line between **DISPOSAL** and **LAND APPLICATION/TREATMENT** are blurred
 - Disposal = not WPP regulations
 - Solid waste VS wastewater treatment residuals
- Land application is treatment method
 - No discharge
 - Material stays on field, and is treated by soils and plants
 - **IF** field does not provide treatment to materials applied, **THEN** the land application practice may be disposal, not treatment

Why 2 RIRs?

- First Public Notice
 - September 6, 2024 – November 5, 2024
 - 107 pages of written comments
 - Many comments pointed out flaws/concerns with PFAS approach
- **Due to amount of comments, RIR was updated and re-public noticed**
 - April 14, 2025 – June 13, 2025
 - 118 pages of written comments
- Two RIRs:
 - Increased public feedback
 - Strengthened report

Lessons Learned & What it Means for You

- Increased awareness of permitted activities



Lessons Learned & What it Means for You

- Increased awareness of permitted activities
- Public participation can lead to legislative awareness
 - Revisions to Missouri Law



Photo: Bermuda Grass Roots
<https://www.bhg.com/how-to-grow-bermudagrass-lawn-8657944>

VS



Photo: Switchgrass Roots
<https://www.coastalprairieconservancy.org/blog/2024-cbc-4m3h2-er69x-a9d4f>

Lessons Learned & What it Means for You

- Increased awareness of permitted activities
- Public participation can lead to legislative awareness
 - Revisions to Missouri Law
- Changes to 10 CSR 20-6.015 & Nutrient Management

10 CSR 20-6.015

5 Key Takeaways

- Nutrient Management
- Land Application Practices
- Nutrient Management Plans
- Runoff Prevention
- Flexibility

<https://dnr.mo.gov/water/business-industry-other-entities/technical-assistance-guidance/land-application-wastewater>

Lessons Learned & What it Means for You

- Increased awareness of permitted activities
- Public participation can lead to legislative awareness
 - Revisions to Missouri Law
- Changes to 10 CSR 20-6.015 & Nutrient Management
- Communication with department staff is key



Post-Seminar Add-on

Sorry. This add-on is sold out. But you can still register and attend the Seminar.

12:45 p.m. Permitting Deep Dive: Conversations With Permit Writers

Join MDNR's Water Protection Program permit writers for insights on the Operating Permit process. ASHLEY GRUPE, Section Chief, will present "The Top 10 Things I'd Like to See in Your Permit Application," followed by an extended Q&A period with the whole team. We'll close with an opportunity to meet one-on-one with your permit writer.

LEASUE MEYERS, Industrial Wastewater and Stormwater Permitting

PAM HACKLER, Industrial Wastewater and Stormwater Permitting

CODY KIMBELL, General Permitting

DEVON LINDSTROM, Domestic Permitting

CINDY LEPAGE, Antidegradation and Engineering

BECKY CRIPE, Electronic reporting, E-permitting, and Data management

Why Does it Matter?

Because what it means for you



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

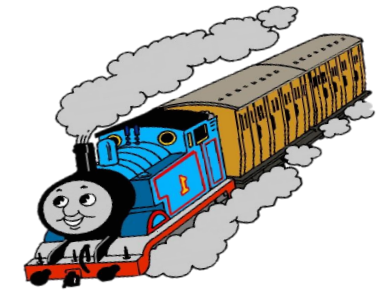
Clean Water Rules Update - Rules in Process

Rulemaking Train

- Water Pollution Control Branch
 - Currently reviewing and amending **9** rules
 - 5 on current “Train”
- Public notice period August 15, 2025 – September 23, 2025
 - Public Hearing: September 16, 2025
- Clean Water Commission Meeting: November 5, 2025



10 CSR 20-2.010 Definitions



What Amendments Do

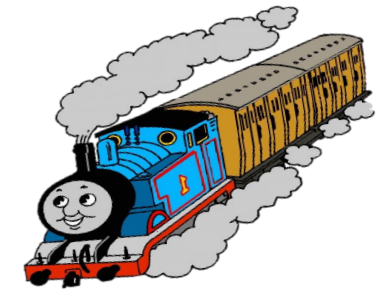
- Definitions rule
 - Updating definitions
 - Increase clarity & consistency
 - Incorporates new definitions
- Administrative only
 - No costs or new requirements

Who Amendments Impact

- No costs or new requirements

- 2024 Stakeholder meetings
 - April 11, June 27, July 26, August 14, November 19, December 13

10 CSR 20-6.015 No-Discharge Permits



What Amendments Do

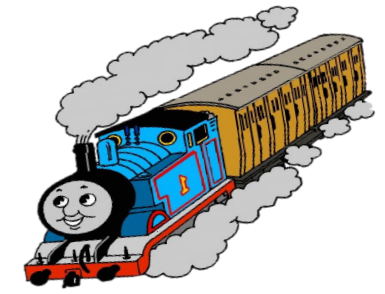
- Incorporates requirements of House Bill 2134/1956
- Land application requirements
 - Industrial wastewater & wastewater treatment residuals
 - **No new domestic waste requirements**

Who Amendments Impact

- Facilities land applying industrial wastewater or wastewater treatment residuals
- Operators of certain open storage basins and vessels as defined in Ch. 2

- 2024 Stakeholder meetings
 - April 11, June 27, July 26, August 14, November 19, December 13
 - **RIR Public Noticed Twice**

10 CSR 20-6.020 Public Participation, Hearings, & Notice to Governmental Agencies



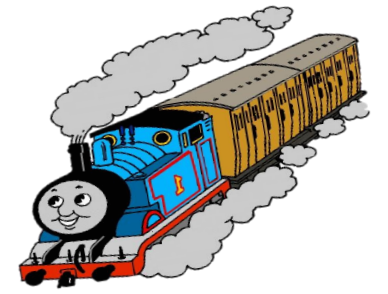
What Amendments Do

- Incorporate electronic engagement
 - Allow for e-mail use for public notices

Who Amendments Impact

- No costs or new requirements anticipated
- Faster and easier notice for permittees
 - Speeds up permitting process

10 CSR 20-6.060 Water Quality Certification



What Amendments Do

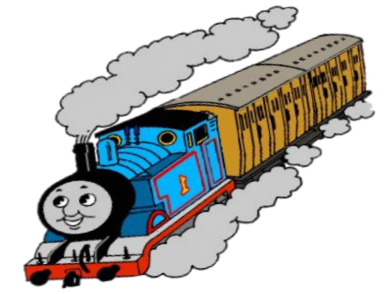
- Administrative only
- Reflect changes to federal regulations
- Allow for flexibility when federal regulations change

Who Amendments Impact

- No costs or new requirements anticipated

- Discussed May 14, 2025, Water Protection Forum

10 CSR 20-6.200 Storm Water Regulations



What Amendments Do

- Administrative only
- Match federal regulations & correct grammar in rule
- Removes outdated parts of rule and redundancy

Who Amendments Impact

- No costs or new requirements anticipated

- Discussed May 14, 2025, Water Protection Forum

10 CSR 20-7.031 Water Quality Standards

What Amendments Do

- Changes to Ammonia Water Quality Criteria
- Increases protection to mollusks
 - Current criteria not protective
- Will result in changes to permit limits

Who Amendments Impact

- All permittees
- Cost analysis is ongoing
- Department is working on flexibilities
 - Mussel absent/present analysis
 - EPA Lagoon Toolkit

- WQS Workgroup Webpage for more information and previous meetings
 - <https://dnr.mo.gov/about-us/forums-stakeholder-groups/water-quality-standards>
- **Next meeting: August 24, 2025**

10 CSR 20-7.015 Effluent Regulations

What Amendments Do

- Amendments to effluent regulations
 - Ammonia implementation dates

Who Amendments Impact

- All facilities impacted by ammonia changes
 - Reviewing flexibilities
 - Schedules of Compliance
 - Staggard Implementation Dates

10 CSR 20-8.140 Wastewater Facilities

What Amendments Do

- Revise setback distances
 - Match well setback distances in 10 CSR 23-3.010, Wellhead Installation Board, and 19 CSR 20-3.060
- Clarified Emergency Power Provision for WWTF's
 - Allow for lagoon holding and flow equalization
- Chemical holding

Who Amendments Impact

- Currently developing impact report
- Stay tuned for more information

How to Stay Informed

- Clean Water Rulemaking Page
 - <https://dnr.mo.gov/about-us/forums-stakeholder-groups/clean-water-rulemaking>
- Sign up for Gov Delivery
 - <https://public.govdelivery.com/accounts/MODNR/subscriber/new>
- Check the DNR Calendar for upcoming meetings
 - <https://dnr.mo.gov/calendar>

Discussion and Questions

Contact Information

Owen Gallagher - owen.gallagher@dnr.mo.gov

Clean Water Rulemaking - cleanwaterrules@dnr.mo.gov

