

# Regulatory Updates for Wastewater Treatment Facilities



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# Emerging Issues

1. Ammonia Criteria
2. Nutrient Reduction
3. e-Reporting
4. NPDES Update Regs
5. Wet Weather
6. Post-Flint Inspections & Enforcement
7. Monitoring
8. Satellite Operations

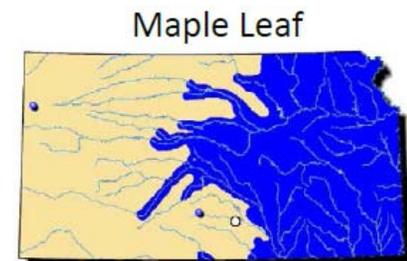
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# Upcoming Ammonia Criteria

- 2013 – EPA published new NH<sub>3</sub> criteria
  - Mussels and snails both considered
  - Acute less stringent, chronic more stringent
  - Nebraska adopted criteria wholesale
  - Analysis shows most modern mechanical plants can meet
    - A handful of older mechanical plants cannot meet
    - Others can meet through altered operations
  - Lagoons cannot meet criteria year round



- **2016-17 – KDHE drafting NH3 criteria & Variance regs**

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# Proposed Kansas Ammonia Criteria

- Adopting EPA recommended values wholesale, presumes mussels present,
- Variance language allows for individual or multiple dischargers to have alternative criteria, if:
  - Existing facility cannot meet new limits &,
  - Local financial capability is too marginal to support a BNR plant
- Prevailing rationale for a variance: “Controls more stringent than those required by sections 301(b) and 306 of the Clean Water Act would result in substantial and widespread economic and social impact”
- Variance is no bargain – essentially no growth in population or industry foreseen in next 20 years

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# Segway into Nutrients

- Ammonia control dictates both nitrification & denitrification
- One unforeseen consequence of meeting the 1994 NH<sub>3</sub> criteria – nitrate production
- Nitrate in Kansas tends to be a ground water issue, when we see it in surface water, it's tied to a point source discharge
- Nitrate impairments lead to TMDLs and a hard monthly limit of 10 mg/l NO<sub>3</sub>-N

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# Nutrient Reduction Strategy

- Major NPDES reduction has been the first iteration through Biological Nutrient Removal
- Total N reduction first achieved by NH<sub>3</sub> & NO<sub>3</sub> compliance with TN goals of 8-10 mg/l
- From now to 2022, all TMDLs will deal with stream TP
- TMDLs establish Wasteload Allocations for NPDES
- WLAs are implemented as rolling average mass limits of TP in permits, based on goals of 1 – 1.5 mg/l
- P removal can be biological or chemical, but sludge can be an issue
- BNR operations typically produce ENR level effluent (TP ~ 0.5 mg/l)

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# Kansas Nutrient Strategy

1. Quid pro quo: Major NPDES invests in BNR; emphasis shifts to NPS and biological response to lowered nutrient loading for 3-4 permit cycles
2. Nutrient reduction through implementation is more critical than establishing numeric nutrient criteria which are difficult to meet
3. KDHE has established chlorophyll criteria for lakes serving as public water supply = 10 ppb; few lakes have major NPDES dischargers in their watersheds
4. HABs in lakes has become THE nutrient issue for Kansas, TMDLs and nutrient strategy reduce NPDES role in issue
5. Should numeric nutrient criteria be imposed, KDHE foresees potential use of WQS variance procedures to craft alternative limits for NPDES

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# Electronic Reporting Rule (E-Ruling)

## National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule

### Overview

- On July 30, 2013, EPA proposed the Clean Water Act [National Pollutant Discharge Elimination System \(NPDES\)](#) Electronic Reporting Rule, which requires electronic reporting of NPDES information rather than the currently-required paper-based reports from permitted facilities that discharge to waters of the United States.
- Phase I of the final rule was effective on December 21, 2015
- Final rule requires all DMR submissions to be electronic DMRs by December 2016

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# Implementation Plan for Phase II

- Phase II- All other NPDES submittals - NOI, Permit Applications, Bypasses- are to be submitted electronically by December 20, 2020
- KDHE is required to draft an Implementation Plan that will address how Phase II will be put into practice.
  - due to EPA by December 2016
  - Requires acquisition of database software

# DMR reporting universe

- KDHE currently has over 1005 facilities that submit DMRs
  - 307 report monthly
  - 568 report quarterly
  - 76 report semi-annually
  - 54 report annually
- In 2015, KDHE received 6,055 DMRs
- e-Reporting is implemented by KDHE in 2016 through eDMR – Web-based DMR Program

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# E-Ruling in Kansas

- eDMR –unique features
  - Performs automatic calculations
    - lbs. per day
    - Annual rolling averages
  - Flags exceedances
  - Flags missing test results
  - Flags data that is “Out of Range”
  - Laboratory uploads

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# NPDES Update Rule

- EPA proposed revisions to NPDES regs, public comment period just closed Tuesday
- Crafted for more public opportunity for review & comment
- More details in applications and fact sheets
- Web-based notification, tracking & e-reporting

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# Wet Weather Issues

1. SSOs, CSOs & Bypasses have become a major emphasis of EPA
2. Primary motivation behind permit objections, letters of warning & consent orders
3. Issues seem to take considerable time to resolve
4. Technology is catching up to the issue
5. Stormwater overtaking Wastewater as a wet weather issue

# Post-Flint: Inspections & Enforcement

- 1. EPA Inspections have picked up this year
- 2. EPA pushing KDHE to increase inspections and perform appropriate follow up on deficiencies
- 3. Enforcement is elbowing out compliance assistance as business model
- 4. DMRs are a primary basis for enforcement activities

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# Permit Monitoring

- 1. Primary evaluation of compliance
- 2. Provides assessment of operations & reasonable potential to cause or contribute
- 3. Assists development of TMDLs
- 4. EPA pushing KDHE on priority scans for applications
- 5. Increases in parameters & frequency likely
- 6. Monitoring beyond outfall may happen

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# Satellite Operations

- Municipalities are chiefly the permit holder and are responsible for reporting incidents, even when it's not their fault
- Mobile Home Parks have become a big issue this year with water & wastewater management
- KDHE policy remains supportive of centralization & elimination of segregated systems

# Questions



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