

# KANSAS AIR QUALITY PERMIT PROGRAM UPDATE

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# TOPICS

- Operating and Construction Permit Update
- Technical Guidance
- Expedited Permits
- Permit Modeling
- Greenhouse Gases (GHGs)
- Federal Rule Changes
- Proposed State Rule Changes

# ONLINE PERMIT APPLICATIONS

- Kansas Air Permit and Reporting System (KAPRS)
- Must register with KEAP - Kansas Environmental Application Portal to use KAPRS
- Registration Instructions are on website
- Use for Construction Permit and Approval Applications Only
- Not for Operating Permit or Prevention of Significant Deterioration (PSD) Permit Applications
- Alternative: Electronic Application Submittal by Email to [BOAPermit@kdheks.gov](mailto:BOAPermit@kdheks.gov)

# PERMIT APPLICATION PROGRESS

## August 2013

- 102 Operating permit applications
- 165 Construction permit applications

## August 2014

- 227 Operating permit applications
- 84 Construction permit applications

## August 2015

- 199 Operating permit applications
- 50 Construction permit applications

# OPERATING PERMIT BACKLOG

- 199 Operating Permit Applications in House
  - 140 Class I Renewals
    - 98 of those beyond 5 years
    - Application shield applies
- How did we get here?
  - The Pig in the Python
  - The Perfect Storm

# PIG PASSING THROUGH THE PYTHON



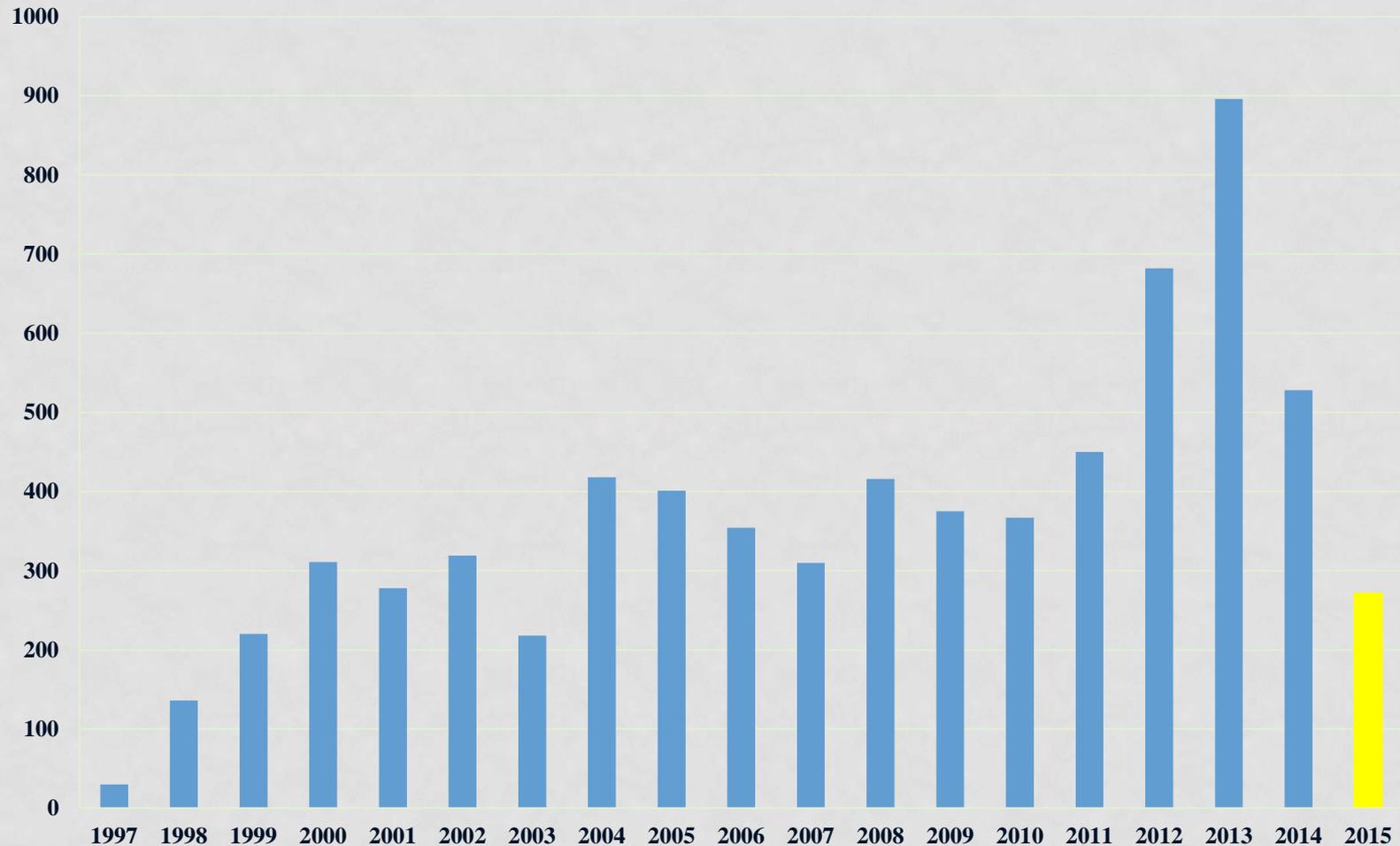
Definition of **pig** in the **python** in English: A sharp statistical increase represented as a bulge in an otherwise level pattern, used especially with reference to the baby-boom generation...  
Oxford English Dictionary

# KANSAS AIR OPERATING PERMITS ISSUED BY YEAR



Note: 2015 Numbers are as of August 12.

# CONSTRUCTION PERMITS, APPROVALS AND RESPONSES ISSUED BY YEAR



Note: 2015 Numbers are as of August 12.

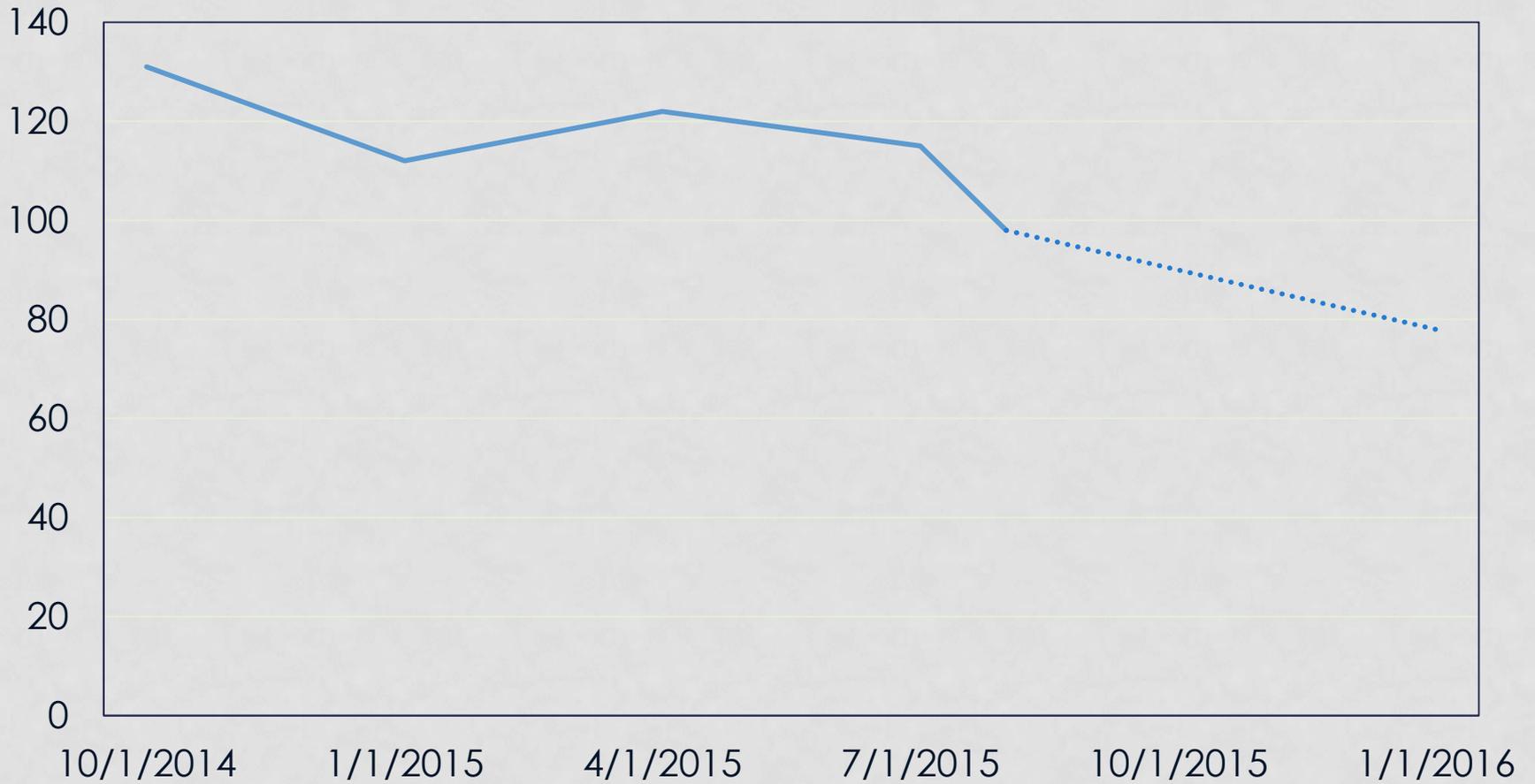
# THE PERFECT STORM



# HOW DO WE ESCAPE?

- Permit Streamlining
- Expedited permits for selected source categories
- Construction Permit/Approval Guidance
- Online Permits/ Emailed Applications
- Regulation Changes
- Program focus on large emitters

# KANSAS CLASS I OPERATING PERMIT BACKLOG



# IMPROVE CONSTRUCTION PERMIT AND APPROVAL PROCESS

## Goals

- Focus on environmental protection
- Reduce application processing time
- Focus resources on larger emitters
- Streamline permit application and issuance process
- Maximize efficiency

# K.A.R. 28-19-300 APPLICABILITY GUIDANCE

- Thank you commenters
- Ensure consistent application of rule
- No impact on emission limitations
- No impact on compliance with federal regulations
- Clarify when a construction permit or approval is required

# K.A.R. 28-19-300 APPLICABILITY GUIDANCE - PERMITS

Required when construction or modification project:

- Emissions exceed thresholds specified
- Construct new acid rain unit or modification trigger new acid rain requirements
- Is a new major source of hazardous air pollutants (HAPs)
- Causes an increase in emissions above HAP major source thresholds
- Is an incinerator
- Sources designated by the secretary of KDHE

# K.A.R. 28-19-300 APPLICABILITY GUIDANCE - PERMITS

A permit is not required solely for:

- Modifications at an Acid Rain unit
- Fugitive dust from storage piles, conveyors, or units other than the Acid Rain unit
- Area HAPs source increases emissions less than major HAPs thresholds
- Major HAPs source increases emissions less than major HAPs thresholds
- All of above not required to obtain permit or approval as long as no emission threshold or other permit triggers
- Approvals may be required

# K.A.R. 28-19-300 APPLICABILITY GUIDANCE - APPROVALS

Required when construction or modification project:

- Emissions exceed thresholds specified
- Sources designated by the secretary of KDHE
- Is subject to 40 CFR Part 60 New Source Performance Standards (NSPS) and triggers construction, reconstruction, or modification
- Is subject to 40 CFR Part 61 National Emission Standards for Hazardous Air Pollutants (NESHAP) and triggers construction or modification
- Is subject to 40 CFR Part 63 NESHAP Maximum Achievable Control Technology (MACT) and triggers construction or reconstruction
- Requests operational restrictions that do not require a permit

# TRIGGER GUIDANCE



# K.A.R. 28-19-300 APPLICABILITY GUIDANCE - APPROVALS

An approval is not required solely for:

- Changes at an NSPS affected facility that do not meet the regulatory definition of construction, reconstruction, or modification
- Changes at a MACT affected facility that do not meet the regulatory definition of construction or reconstruction
- Existing sources subject to a new rule (submit required notifications, follow rule requirements)

# K.A.R. 28-19-300 APPLICABILITY GUIDANCE – OPERATIONAL RESTRICTIONS

## K.A.R. 28-19-300(b)(4):

- Operational restriction in an approval to avoid permit
- Cannot be used to avoid requirement of the Federal Clean Air Act
  - Avoid PSD permit
  - Avoid MACT standard

# K.A.R. 28-19-300 GUIDANCE (CONT.)

Permit and approval requirements, comply with all applicable:

- K.A.R. 28-19-300 Construction permits and approvals
- K.A.R. 28-19-350 Prevention of Significant Deterioration
- K.A.R. 28-19-16 and 16a through 16m Nonattainment Area  
New Source Review

# K.A.R. 28-19-300 GUIDANCE (CONT.)

## Non-road Engines

K.A.R. 28-19-300 describes permit and approval requirements for stationary sources. KDHE has determined that non-road engines, as defined in 40 CFR part 1068, are not stationary sources, and are not subject to permit or approval requirements under K.A.R. 28-19-300.

# EXPEDITED PERMIT APPLICATIONS

Goal: Reduce application processing time

- Combine application and permit
- Eliminate KDHE internal review process by making all documents identical for each source type
- No administrative or clerical activities for issuance

# EXPEDITED PERMITS

- Permit fee pay by credit card
- NEW - concrete batch
- NEW in September - animal incinerators
- Oil and gas
- Coming soon
  - Rock crushers
  - Asphalt plant
  - Country grain elevators

# AIR QUALITY DISPERSION MODELING

- Required for PSD permits
- May be required for other special cases – National Ambient Air Quality Standards (NAAQS) or other concerns
- AERMOD Version 15181 released July 2015
- Existing modeling submittals for permits not issued yet may not need to be run with the new version, compare data to model change bulletins

# MAY 20, 2014 PM<sub>2.5</sub> MODELING GUIDANCE FROM EPA

- 4 assessment cases for screening of primary and secondary PM<sub>2.5</sub> impacts
- Based on assessment, modeling requirements range from:
  - No analysis
  - Qualitative
  - Hybrid qualitative/quantitative
  - Full photochemical grid modeling
- NO<sub>2</sub> and SO<sub>2</sub> Precursors for Secondary PM<sub>2.5</sub> Formation

# 40 CFR PART 51

## APPENDIX W PROPOSED CHANGES

- Guideline on Air Quality Models
- Published July 29, 2015
- Public comment period ends 10/27/15
- Final rule projected mid-2016
- 1-hour NO<sub>2</sub> modeling
  - Use ozone limiting method (OLM) and plume volume molar ratio method (PVMRM) regulatory default options (no Region 7 approval required)
  - Justify inputs in protocol

# APPENDIX W PROPOSED CHANGES (CONT.)

From EPA webinar slides:

- For this proposed revision to the *Guideline*, the EPA has determined that advances in photochemical modeling science indicate it is now reasonable to provide more specific, generally-applicable guidance that identifies particular models or analytical techniques that may be used under specific circumstances for assessing the impacts of an individual source on ozone and secondary PM<sub>2.5</sub>.
- The EPA believes photochemical grid models are generally most appropriate for addressing ozone and secondary PM<sub>2.5</sub> because they provide a spatially and temporally dynamic realistic chemical and physical environment for plume growth and chemical transformation.
- The EPA is proposing a two-tiered demonstration approach for addressing single-source impacts on ozone and secondary PM<sub>2.5</sub> that will be used in concert with future demonstration tool (e.g. MERPs or Modeled Emission Rate for Precursors)

For more information:

[http://www.4cleanair.org/sites/default/files/Documents/Appendix\\_W-NACAA\\_Briefing-08062015.pdf](http://www.4cleanair.org/sites/default/files/Documents/Appendix_W-NACAA_Briefing-08062015.pdf)

<http://www.epa.gov/ttn/scram/11thmodconf.htm>

# MODELING

## Bottom Line

- Future PSD permit modeling will need to account for:
  - Secondary PM<sub>2.5</sub> formation (significant for NO<sub>x</sub>, SO<sub>x</sub>)
  - Ozone for sources that are major for VOC

# GREENHOUSE GAS (GHG) SUPREME COURT RULING

- UARG v. EPA, 6/23/2014
- Cannot regulate emitters solely based on GHGs
  - May not treat GHG as an air pollutant for major source determination
    - PSD permits
    - Title V permits
  - Conduct BACT analysis for GHGs if significant and PSD triggered for other pollutants
  - Include in Title V application if major
- Can regulate industries already required to get permits for other air pollutants

# GREENHOUSE GASES RECENT ACTIVITIES

- Direct final rule May 7, 2015
  - Allows EPA and delegated states to rescind PSD permits issued
  - State Implementation Plan (SIP) approved state
    - Must modify Kansas regulations
    - Working with sources that have permits affected by the ruling
- Good cause final rule August 12, 2015
  - Removed applicable portions of PSD and Title V permitting regulations specifically vacated

# PARTS 60 AND 63 FEDERAL RULE CHANGES - ENGINES

- 40 CFR Part 60 Subpart IIII, New Source Performance Standards (NSPS) for Compression Ignition Internal Combustion Engines (Diesel)
- 40 CFR Part 60 Subpart JJJJ, NSPS for Spark Ignition Internal Combustion Engines (Gas Fired)
- 40 CFR Part 63 Subpart ZZZZ, Maximum Achievable Control Technology (MACT) for Stationary Reciprocating Internal Combustion Engines (RICE)

# EMERGENCY ENGINES

July 21, 2015 Court Decision, amended May 1, 2015 decision

For emergency engines:

- Vacated rule portions that allowed emergency demand response
- 100 hours allowed for maintenance checks and readiness testing still allowed
- June 30, 2015 - EPA requested voluntary remand without vacature for 50 hours non-emergency use as part of financial arrangement with another entity

More information here:

<http://www.epa.gov/ttn/atw/icengines/>

# PART 63 FEDERAL RULE CHANGES - BOILERS

40 CFR Part 63 Subpart JJJJJJ (Area Sources) Changes Proposed  
January 21, 2015:

- Definitions of startup and shutdown periods
- Alternative particulate matter (PM) standard for new oil-fired boilers that combust low-sulfur oil
- Establishment of a subcategory and separate requirements for limited-use boilers
- Establishment of a provision that eliminates further performance testing for PM for certain boilers based on their initial compliance test
- Establishment of a provision that eliminates further fuel sampling for mercury for certain coal-fired boilers based on their initial compliance demonstration
- Clarifying changes and corrections
- Remove affirmative defense provisions

# PART 63 FEDERAL RULE CHANGES - BOILERS

## 40 CFR Part 63 Subpart DDDDD (Major Sources) Changes Proposed January 21, 2015:

- Definition of startup and shutdown periods and the work practices that apply during such periods, includes process heaters
- Revise carbon monoxide (CO) emission limits based on a minimum CO level of 130 parts per million
- The use of particulate matter continuous parameter monitoring system (PM CPMS), including the consequences of exceeding the operating parameter

# PART 63 FEDERAL RULE CHANGES - BOILERS

40 CFR Part 63 Subpart DDDDD (Major Sources) Changes  
Proposed January 21, 2015 (Cont.):

- Technical corrections
- Alternative definition of startup and an alternative work practice that applies during startup to the definition and work practice that is being reconsidered
- Removed the affirmative defense provision (section 63.7501 of subpart DDDDD) from the final rule

More information here:

<http://www.epa.gov/ttn/atw/boiler/boilerpg.html>

# PART 60 FEDERAL RULE CHANGES – GRAIN ELEVATORS

Proposed revisions to 40 CFR Part 60 Subpart DD, New Source Performance Standards (NSPS) for Grain Elevators

- July 9, 2014 publication
- Clarify certain rule provisions (unloading leg)
- Define grain unloading station, grain loading station
- Comment period through December 22, 2014

# PART 60 FEDERAL RULE CHANGES – GRAIN ELEVATORS (CONT.)

Proposed new subpart 40 CFR Part 60 Subpart DDa, NSPS for Grain Elevators

- July 9, 2014 publication
- Construction, reconstruction, or modification after July 9, 2014 (this date could change)
- Define temporary storage, proposal counts temporary storage approximately 1/3 permanent storage
- New emission limits for certain grain elevators
- Additional testing, monitoring, recordkeeping, and reporting requirements
- Standards apply at all times including SSM
- Comment period through December 22, 2014

# PART 60 FEDERAL RULE CHANGES – GRAIN ELEVATORS (CONT.)

For applicability of Subpart DDa:

Temporary storage facility, or TSF, means any grain storage bin that: (1) uses an asphalt, concrete, or other comparable base material; (2) uses rigid, self-supporting sidewalls; (3) provides adequate aeration; and (4) provides an acceptable covering (e.g. tarp).

# 40 CFR PART 60 ELECTRONIC REPORTING AND RECORDKEEPING

- Proposed February 26, 2015
- Requires certain types of industrial sources to electronically submit air emissions data reports, including:
  - Glass Manufacturing
  - Stationary Gas Turbines
  - Grain Elevators
  - Coating Operations
  - Landfills
  - Engines
- Reports currently submitted hard copy
- Allow source to retain electronic records in lieu of hard copy

For more information:

<http://www.epa.gov/ttn/atw/eparules.html>

# PROPOSED STATE RULE CHANGES

## K.A.R. 28-19-304, Construction Permit and Approval Fees

- Permits and Approvals (Non-PSD) \$500-\$4000
- PSD and non-attainment NSR
  - New permit - \$15,000
  - Modification with Best Available Control Technology (BACT) revisions or emissions changes - \$15,000
  - Refined modeling - additional \$10,000

# HOW CAN I GET MY PERMIT QUICKLY?

- Process applications more quickly if application is complete
- Email approvals and responses for new engines and replacements
- Online permits and approvals
- Streamlined and expedited documents
- Send permit fee with application – we now accept credit cards for fees up to \$5000

# USEFUL AIR QUALITY LINKS

- **KDHE Air Program**  
<http://www.kdheks.gov/bar/index.html>
- **Permit Application Forms**  
<http://www.kdheks.gov/air-permit/download.html>
- **Compliance Forms**  
<http://www.kdheks.gov/air-permit/indexCE.html>
- **Kansas Statutes and Regulations**  
<http://www.kdheks.gov/bar/regs.html>
- **EPA**  
<http://www.epa.gov/region07/air/index.htm>
- **CFRs**  
[http://www.ecfr.gov/cgi-bin/text-idx?SID=0d12a674b13867c8db39640daddae277&mc=true&tpl=/ecfrbrowse/Title40/40tab\\_02.tpl](http://www.ecfr.gov/cgi-bin/text-idx?SID=0d12a674b13867c8db39640daddae277&mc=true&tpl=/ecfrbrowse/Title40/40tab_02.tpl)

# SUMMARY

- Operating and Construction Permit Update
- Technical Guidance
- Expedited Permits
- Permit Modeling
- Greenhouse Gases (GHGs)
- Federal Rule Changes
- Proposed State Rule Changes

# Questions?

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