



# K-State SBEAP

## Introduction To Permits



This video is funded in part by the Kansas Department of Health and Environment Bureau of Air



Pollution Prevention Institute

# KDHE Bureau of Air



A screenshot of the KDHE Bureau of Air website. The header features the Kansas Department of Health and Environment logo and a navigation menu with links for Home, Public Health, Environment, Health Care Finance, Laboratories, and News. Below the navigation is a search bar and social media icons. The main content area is titled 'Air' and includes a mission statement: 'Mission - To protect the public and the environment from air pollution.' There are four main content boxes: 'Asbestos' with links to 'About Asbestos', 'Asbestos Resources and Forms', 'Asbestos Information Notices', and 'Asbestos Regulations'; 'Compliance and Enforcement' with links to 'Compliance Technical Guidance and Information', 'Compliance Frequently Asked Questions', and 'Compliance Helpful Links'; 'Emissions Inventory' with links to 'SLEIS Electronic Inventory Submittal', 'Paper Inventory Submittal Forms', and 'Inventory Frequently Asked Questions'; and 'Residential Lead Hazard Prevention' with links to 'Lead Hazard Prevention', 'Licensing and Certification', and 'Statutes and Regulations'. A right-hand sidebar contains an 'A to Z Topic Listing' search box and a 'Links' section with various resource links.

<https://www.kdheks.gov/bar/index.html>

# Air Pollutants and PTE



**Categories of Pollutants (covered in-depth in another video)**

- Criteria pollutants
  - Oxides of Nitrogen – NO<sub>x</sub>, NO<sub>2</sub>
  - Oxides of Sulfur – SO<sub>x</sub>, SO<sub>2</sub>
  - Carbon Monoxide – CO
  - Particulate Matter – PM, PM<sub>10</sub>, PM<sub>2.5</sub>
  - Ground-level Ozone – O<sub>3</sub>
  - Lead
- Volatile organic compounds
- Hazardous Air Pollutants

**Potential to Emit or PTE (covered in-depth in another video)**

- PTE is defined under K.A.R. 28-19-200 (yy): "the maximum capacity of a stationary source to emit a pollutant under its physical and operational design."
- This is not actual emissions – it is Potential.
- Maximum capacity or rating of equipment, maximum process capability, no bottlenecks, no hours restricted

# Types of Air Quality Permits in Kansas

# Installing new, modifying existing, reconstructing existing equipment or processes?

Per K.A.R. 28-19-300, **before beginning actual construction or modification:**

- Each person who proposes to construct or modify a stationary source or emission unit **shall obtain a construction permit** when specific conditions listed in K.A.R. 28-19-300(a)(1-5) are met,
- Or **shall obtain a construction approval** when specific conditions do not meet K.A.R. 28-19-300(a)(1-5), **BUT** meet conditions of K.A.R. 28-19-300(b)(1-6) .

# What is Construction?

K.A.R. 28-19-200 (p) Construction means "any physical change or change in the method of operation, including fabrication, erection, installation, demolition, or modification of an emissions unit."

# Types of Construction Documents in Kansas



- Air General Construction Permit, Approval, or Response
- Air Construction Permit for PSD
- Air Expedited Construction and/or Operating Concrete Batch Plant Permit
- Air Expedited Construction Animal Incinerators Permit
- Air Expedited Construction Approval Emergency Generator Permit
- Air Expedited Construction Oil and Gas Facility Permit
- Air Expedited Construction Portable Rock Crusher Permit
- Air Expedited Construction Rock Crusher Master Equipment List

# Construction PTE Thresholds



## Construction Approval

Pollutant	PTE Threshold
Lead (or compounds)	0.1 pounds per hour
SO2 or SO3	2 pounds per hour
PM10	2 pounds per hour
PM	5 pounds per hour
PM/PM10 Ag-related	5 pounds per hour
NOx	50 pounds per 24-hr
CO	50 pounds per 24-hr
VOC	50 pounds per 24-hr
VOC (JO and WY counties only)	3 pounds per hour 15 pounds per 24-hr

## Construction Permit

Pollutant	PTE Threshold
Lead (or compounds)	0.6 tons per year
PM2.5	10 tons per year
PM10	15 tons per year
PM	25 tons per year
PM Ag-related	100 tons per year
SO2 or SO3	40 tons per year
NOx	40 tons per year
CO	100 tons per year
VOC	40 tons per year
HAP - single	10 tons per year
HAPs - combination	25 tons per year



# What if the project doesn't exceed the approval or permit emission thresholds?



Is the equipment subject to any federal rules?

- 40 CFR Part 60 – New Source Performance Standards, aka NSPS
- 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants
- 40 CFR Part 63 – National Emission Standards for Hazardous Air Pollutants, aka NESHAPs or MACTs

- If yes, **then at minimum an construction approval is required** to be obtained with the exception of certain regulations as described in K.A.R. 28-19-300(b)(3-6).
- Example: Installation of an engine subject to 40 CFR Part 63 Subpart ZZZZ, aka RICE MACT at an area source of HAPs.
  - Facility-wide HAP PTE is <10 and <25.)



# Operating Permits

Operating Permit Program in Kansas

# What is a major source?

## K.A.R. 28-19-200(kk)

“Major source” means any stationary source, or any group of stationary sources that are located on one or more contiguous or adjacent properties and are under common control of the same person, or persons who are under common control, belonging to a single major industrial grouping and that are described in paragraphs K.A.R. 28-19-200(kk) (1), (2), (3) or (4).

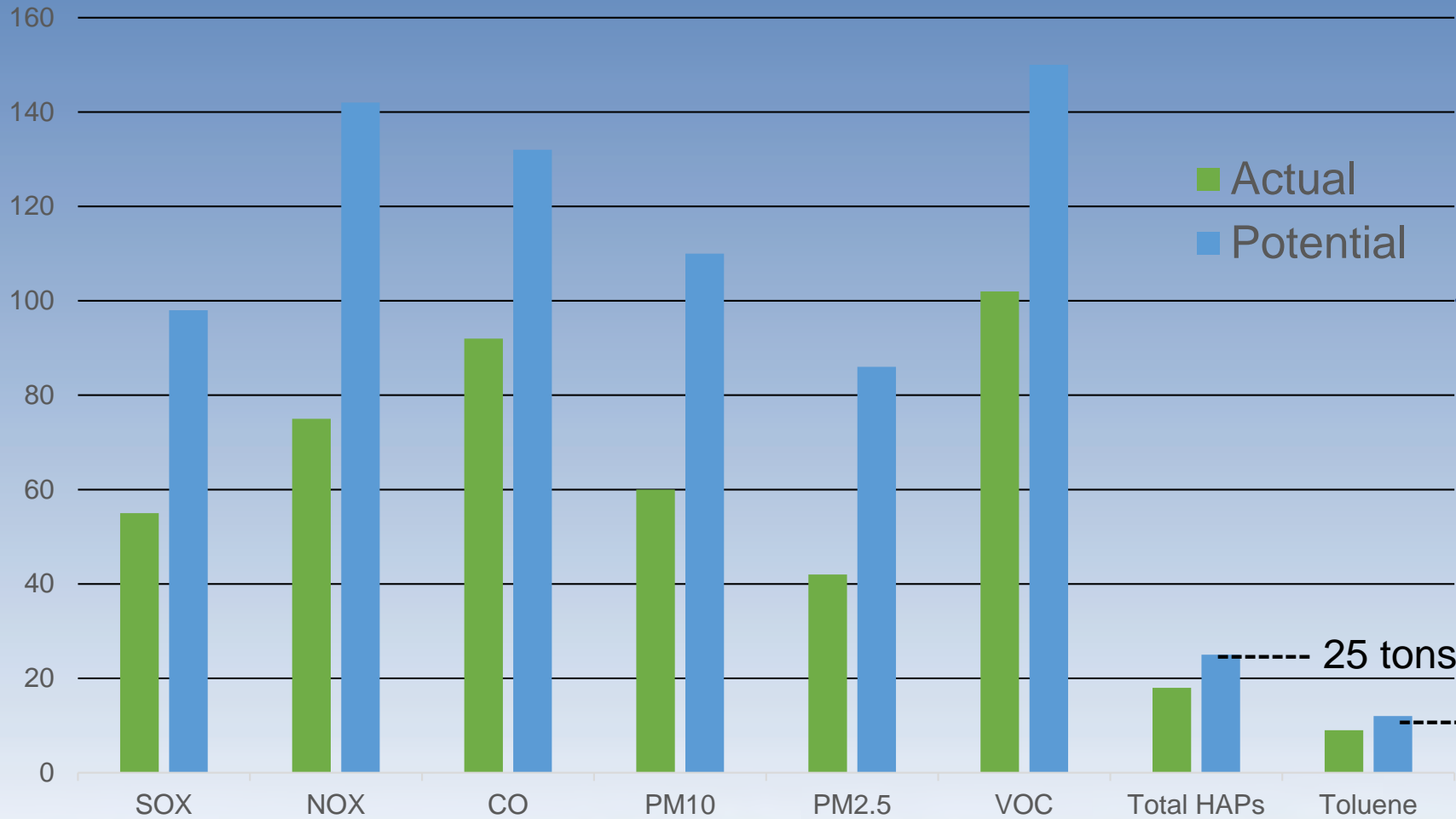
- Sources directly emitting or with potential to emit HAP emissions  $\geq 10$  tpy for a single HAP or  $\geq 25$  tpy for combination of HAPs
- Sources directly emitting or with potential to emit of  $\geq 100$  tpy of any air pollutant, includes fugitive emissions from federally designated fugitive emission sources

# Major Source Pollutant PTE Thresholds



Pollutant	PTE Threshold
SO <sub>2</sub> or SO <sub>3</sub>	100 tons per year
NO <sub>x</sub>	100 tons per year
CO	100 tons per year
VOC	100 tons per year
Lead (or compounds)	100 tons per year
PM <sub>2.5</sub> /PM <sub>10</sub>	100 tons per year
HAPs – Single	10 tons per year
HAPs – Combination	25 tons per year

# PTE versus Actual emissions



➤ 100 tons Major Source Criteria Pollutants and VOCs

----- 25 tons combination of HAPs

----- 10 tons of any single HAP

# Types of Operating Documents in Kansas



- **Class I Operating Permit**, aka Title V Permit (Title V of the Clean Air Act)
  - All major sources and some sources that are not major sources but are required by Federal air regulations to obtain a Part 70 permit
  - Renews every 5 years
- **Class II Operating Permits**, aka Synthetic Minor permits or FESOPS (federal enforceable state operating permits)
  - Sources with major source PTE that opt to take limits to restrict PTE and actual emissions below major source levels

- **Class II permit types:**

- General
- Permit by Rule (PBR)
  - sources with actual emissions less than 50% of major source thresholds
  - hot-mix asphalt facilities
  - organic solvent evaporative sources
  - reciprocating engines

The Class II operating permits do not expire, but may need modified based in changes at a facility over time.

# Applying for Permits in Kansas



- Guidance Documents Available on PPI/SBEAP website - <https://www.sbeap.org/air-quality>
- Guidance Documents Available on KDHE BOA website - <https://www.kdheks.gov/air-permit/indexPrmt.html>
- Kansas Environmental Information Management Systems (KEIMS) – BOA page, <https://kdheks.gov/bar/keims-BOA.html>

# KEIMS – what you will need to know and have ready to upload

- What permit type are you applying for?
- Cover letter describing facility operations and project
- SIC/NAICS number for primary operations
- Manufacturer or engineering documents for equipment being installed or modified
- PTE in a reviewable format
- SDS for all chemicals or raw materials used
- Fuel specification sheets for combustion devices
- Plant diagram
- Equipment descriptions for all equipment installing, removing, reconstructing, etc. which include manufacturer names, dates, maximum ratings.



A screenshot of the KEIMS website homepage. The page has a green and yellow background with a sunflower field. At the top left is the "Kansas KEIMS" logo. To the right are links for "About" and "Contact". Below that is a "Sign In" button with a key icon. The main heading reads "Create and manage regulatory and environmental applications and documentation". A central white box titled "What can I do here?" lists three bullet points: "Submit, revise, and manage applications, registrations or permits", "Pay environmental fees", and "Submit and view documentation". Below this box is a call to action: "To get started, you'll need an account." with a blue "CREATE A KEIMS ACCOUNT" button and a link "Sign in with an existing account". On the right side, there are two "Public Services" sections: "Public Notice Search" and "Site Map Explorer", each with a brief description and a right-pointing arrow.



What if I am a true minor source (not major and not a synthetic minor)?

- An operating permit is not required for true minor sources in Kansas, unless an applicable Federal regulation requires the source to obtain a Part 70 or 71 permit, aka the Class I or Title V permit, or the KDHE, under the authority of the Kansas Air Quality Statutes or Regulations require it.



- For true minor sources, the construction approvals or permits act as the “operating permits.”
- Always maintain copies of your construction approval/permits on-site and follow their requirements unless directed otherwise.

# Free, Confidential Air Permitting and Compliance Assistance



K-State Small Business Environmental Assistance Program or SBEAP provides free technical assistance to small businesses.

Contact us at [sbeap@ksu.edu](mailto:sbeap@ksu.edu), call 1-800-878-889, or visit our website at [www.sbeap.org](http://www.sbeap.org)

Outside of Kansas? There are SBEAPs in nearly every state. Check out the National SBEAP website at <https://nationalsbeap.org/states>.