

Air Permitting 101

Meet the Speaker



*MCNEESE STATE CHEMICAL
ENGINEERING GRADUATE — GO
POKES!*



*ENVIRONMENTAL
CONSULTANT WITH CK FOCUSED
ON AIR PERMIT COMPLIANCE*



*EXPERIENCED IN NAVIGATING
COMPLEX REGULATORY
LANDSCAPES*

Who This Talk Is For



Early-career environmental professionals



Those in other environmental disciplines



Consultants, industry professionals, and the curious



Focus: Louisiana air permitting through LDEQ's lens

Air 101: High Fly-Over

First thing you'll notice: acronyms everywhere

Saying “H-O-N” instead of “hän” = rookie mistake

Like saying “N-A-S-A” instead of “NASA”

Example:

- NAAQS = National Ambient Air Quality Standards
- HAPs = Hazardous Air Pollutants
- NESHAP = National Emission Standards for Hazardous Air Pollutants

Criteria pollutants, HAPs, TAPs, Oh My!



Criteria Pollutants

6 common pollutants regulated by EPA

- Examples: CO, NO₂, SO₂, O₃, PM, Lead



HAPs (Hazardous Air Pollutants)

188 toxic chemicals under the Clean Air Act

- Examples: Benzene, Mercury, Formaldehyde



TAPs (Toxic Air Pollutants)

Louisiana-specific list

- Includes HAPs + additional state-regulated pollutants

Why is an Air Permit Needed?

- ▶ Let's start with the big question: Why?
 - ❖ Why are air permits required?
 - ❖ Why do facilities get to release any emissions at all?
- ▶ It all goes back to the Clean Air Act—the foundation of U.S. air quality regulations.
- ▶ It sets national standards and guides the permitting programs we'll cover today.

The Clean Air Act – A Quick Overview

Passed in 1963,
building on the
1955 Air Pollution
Control Act

Congress
strengthened the
Act through 4 major
amendments

1990 Clean Air Act
Amendments
established Title V

Title V vs. Part 70

Title V =
statutory
foundation (1990
Amendments)

Title V is the
“what” and “why”

Part 70 is the
“how”

Types of Air Permits

Title V (Major Source Permits)

Minor Source Permits

Small Source Permits

Acid Rain Permits

Statutory Exemptions

Regulatory Permits

New Source Review (NSR) Permits

- **Nonattainment NSR (NNSR)**
- **Prevention of Significant Deterioration (PSD)**

Timing Matters

- ▶ NSR permits must be obtained before construction begins
- ▶ In Louisiana:
 - ❖ Title V and NSR are combined
 - ❖ One-stop shop
- ▶ In Texas (TCEQ):
 - ❖ Two-step process: pre-construction + operating permits
- ▶ Different from water permits (typically obtained pre-operation)

Purpose of the Permitting Process

- ▶ Evaluates, controls, and monitors emissions
- ▶ Protects **public health** and the **environment**
- ▶ Ensures compliance with all applicable federal and state standards
- ▶ Prevents significant deterioration of air quality

Major Source vs. Minor Source

- ▶ Depends on:
 - ❖ Potential to Emit (PTE)
 - ❖ Types of pollutants emitted
 - ❖ Attainment status of your location
- ▶ **Major Source (Title V)** Emits or can emit:
 - ❖ **≥100 tpy** of any criteria pollutant (e.g., NO_x, CO)
 - ❖ **≥10 tpy** of a single hazardous air pollutant (HAP)
 - ❖ **≥25 tpy** of combined HAPs

NSR Thresholds

- ▶ **Attainment Areas** – *Prevention of Significant Deterioration (PSD)*
100 tpy for listed industrial categories
250 tpy for unlisted categories
- ▶ **Nonattainment Areas** – Nonattainment NSR
Thresholds range from **10 to 100 tpy**, depending on pollutant type and severity of nonattainment

Major Source vs. Minor Source: Why It Matters

Major sources face stricter requirements:

Enhanced monitoring
& reporting

Public participation
(comment period)

Compliance: SAM &
ACC



Classification shapes the entire application
process

The Components of an Application

- ▶ Air permit applications include:
 - Emission Calculations
 - Regulatory Analysis
 - Application Forms & Text Report
 - Other Supporting Components

Emission Calculations

- ▶ Quantifies expected pollutants
- ▶ Follows a hierarchy of data sources:
 - Direct measurements (stack tests, CEMS)
 - Site-specific calculations (material balances, fuel analyses)
 - Manufacturer/vendor data
 - Published emission factors (e.g., EPA's AP-42)
 - Engineering estimates/professional judgment

Regulatory Analysis



Identify all applicable regulations



Includes:

Federal standards (NSPS, MACT)

State rules (e.g., LAC 33:III Chapter 51)

Application Forms & Text Report



EIQ – Emissions Inventory Questionnaire



AAEAP – Application for Approval of Emissions



Text Report = narrative of the application

Purpose
Project description
Emissions & controls context



Other Components – Maps, RO/PE Certifications, Fees

Miscellaneous Permitting Actions

Variance

**Authorization to
Construct
/ Approval to
Operate**

**Change in Tank
Service**

**Exemptions to
Test**

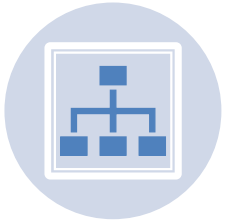
**Letters of
Response / No
Objection**

**Permit
Rescission**

**Small Source
Exemption**

**Portable
Facilities**

Permitting Strategies



Define a Clear Project Scope

– Clearly define what's being constructed, modified, or operated



Prioritize Data Quality –

Verify emissions calculations and process descriptions



Engage Early with LDEQ –

Reach out with questions or request a pre-application meeting



Consider Expedited

Review – Requires formal request and justification. May involve additional fees



Avoid Common Pitfalls –

Negative public comments can delay review. Proactive community engagement early in the process helps

Wrap-Up and Final Thoughts



LDEQ offers:

Guidance documents for major/minor/NSR permits



Join organizations like:

Air & Waste Management Association
Trade associations like LCA and LMOGA



Success = technical expertise + strategy + relationships



Stay curious, stay collaborative, and keep learning—because clean air doesn't permit itself.