

# Discussion on Pulp Mill Permitting

House Committee on State Agencies and Governmental Affairs  
Joint Committee on Energy  
October 6, 2016

# ADEQ

ARKANSAS  
Department of Environmental Quality



# State of the Air in Arkansas

## Executive Summary

The state of the air in Arkansas in 2016 is excellent. All areas of Arkansas are in attainment with the National Ambient Air Quality Standards (NAAQS) promulgated by the Environmental Protection Agency (EPA). The NAAQS are limits set to protect the public health and welfare. The Arkansas Department of Environmental Quality (ADEQ) has the responsibility of developing and administering air quality programs in the state to ensure that all areas of the state are in attainment with the NAAQS. The air quality in Arkansas continues to improve due to emission reductions achieved through implementation of State and federal programs. Arkansas is also on target to meet or beat other Clean Air Act (CAA) goals including visibility improvement in national parks and reductions in carbon dioxide emissions, which EPA recently found to endanger the public health.<sup>1</sup> Arkansans can breathe easy knowing that the air quality in Arkansas is well protected.

## Air Quality Standards

### National Ambient Air Quality Standards

The CAA requires that EPA set NAAQS for pollutants that are common to outdoor air and are considered harmful to public health and the environment. These pollutants, which are referred to as “criteria pollutants,” include ozone, particulate matter, carbon monoxide (CO), lead, sulfur dioxide (SO<sub>2</sub>), and nitrogen dioxide (NO<sub>2</sub>). The EPA Administrator, in consultation with the Clean Air Scientific Advisory Committee, sets primary and secondary NAAQS to protect public health and the environment for each criteria pollutant. The primary NAAQS is set at a level that reduces the risk of harm so as to protect public health, including sensitive populations, with an adequate margin of safety.<sup>2</sup> The secondary NAAQS is set at a level that is protective of the public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. Secondary standards are typically equal to the primary standard or less stringent than the primary standard. The current NAAQS are listed in Table 1.

Table 1. National Ambient Air Quality Standards

Pollutant	Primary / Secondary	Averaging Time	Level	Form
Carbon Monoxide	Primary	8-hour	9 ppm	Not to be exceeded more than once per year
		1-hour	35 ppm	
Lead	Primary and secondary	Rolling 3 month	0.15 µg/m <sup>3</sup>	Not to be exceeded

<sup>1</sup> “Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act; Final Rule” (74 FR 6649, December 15, 2009)

<sup>2</sup> CAA §109

Pollutant	Primary / Secondary	Averaging Time	Level	Form
		average		
<b>Nitrogen Dioxide</b>	Primary	1-hour	100 ppb	98th percentile, averaged over 3 years
	Primary and secondary	Annual	53 ppb	Annual Mean
<b>Ozone</b>	Primary and secondary	8-hour	0.070 ppm	Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years
<b>Particle Pollution, PM<sub>2.5</sub></b>	Primary	Annual	12 µg/m <sup>3</sup>	Annual mean, averaged over 3 years
	Secondary	Annual	15 µg/m <sup>3</sup>	
	Primary and secondary	24-hour	35 µg/m <sup>3</sup>	98th percentile, averaged over 3 years
<b>Particle Pollution, PM<sub>10</sub></b>	Primary and secondary	24-hour	150 µg/m <sup>3</sup>	Not to be exceeded more than once per year on average over 3 years
<b>Sulfur Dioxide</b>	Primary	1-hour	75 ppb	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year

The NAAQS are reviewed every five years to determine whether recent scientific data continue to indicate that the level, form, and averaging time of the current NAAQS are protective of public health.<sup>3</sup> If the data show that the current level of the NAAQS is not protective of public health with an adequate margin of safety, the EPA must revise the standard and states must develop implementation plans to ensure that all areas of the state attain and maintain the revised NAAQS.<sup>4</sup> Areas in which the NAAQS for a particular criteria pollutant is not being met are designated as nonattainment and require additional planning efforts to improve air quality.<sup>5</sup> Nonattainment designation recommendations are made by the Governor and promulgated by EPA. The EPA classifies nonattainment areas as marginal, moderate, serious, severe, or extreme, based on the severity of the air pollution and the availability and feasibility of pollution control measures. For each nonattainment area, the states must develop a plan to reduce pollutant levels in the air to achieve attainment with the NAAQS as expeditiously as possible.

### Attainment Status

All counties in Arkansas are in attainment with the NAAQS for all criteria pollutants. Crittenden County, which is located in the Memphis metropolitan area, had previously been designated a marginal nonattainment area for the 1997 ozone standard and the 2008 ozone standard. Based on monitored improvements in air quality between 2012 and 2014, EPA redesignated the county to attainment, effective May 25, 2016. All counties in Arkansas are anticipated to continue to attain all NAAQS,

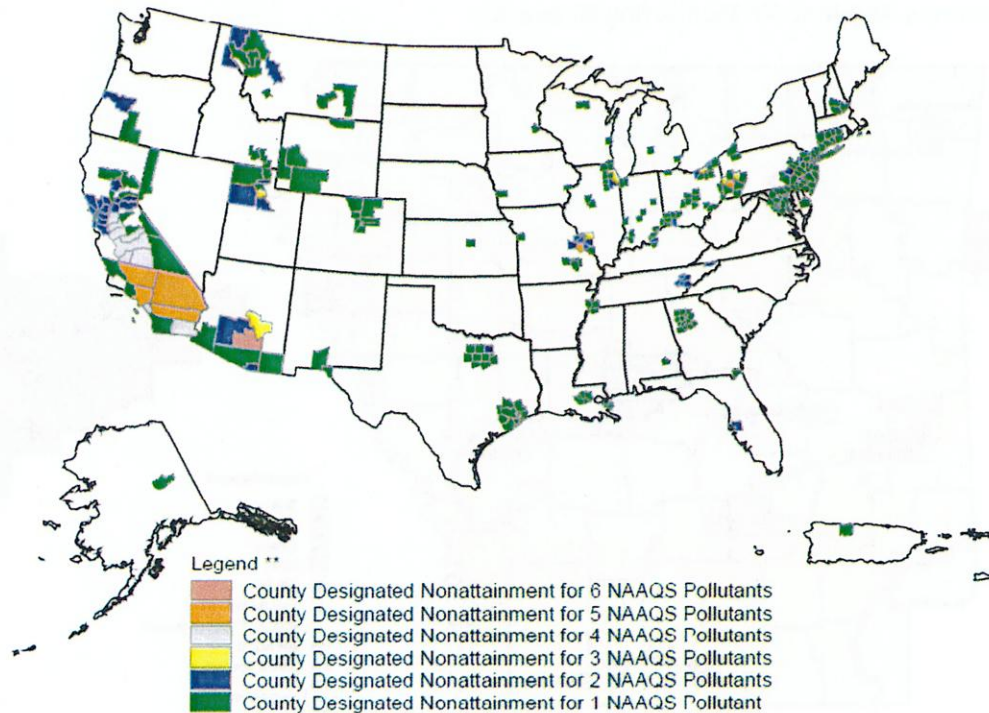
<sup>3</sup> CAA §109

<sup>4</sup> CAA §110

<sup>5</sup> CAA Title I Part D

including the recently promulgated 2015 ozone NAAQS set at 70 parts per billion (ppb). Figure 1 is a map of counties designated nonattainment with one or more NAAQS.

Figure 1. Counties Designated Nonattainment for National Ambient Air Quality Standards<sup>6</sup>



Attainment status is determined based on air quality measurements by ambient air monitoring networks. A design value is computed for each monitor location based on time-weighted averages of the criteria pollutant in ambient air and the form of the NAAQS. Design values are compared with the level of the NAAQS to determine whether the standard is exceeded and if so, by how much. If multiple monitors are collocated in an area, the monitor with the highest design value controls attainment status. When EPA promulgates a new NAAQS, states must evaluate monitoring data to determine whether to recommend an attainment or a nonattainment status to EPA.

Ambient air monitoring networks are established according to federal requirements based on total population in a metropolitan statistical area (MSA). Within an MSA, several factors are used to determine the location of the monitoring sites:

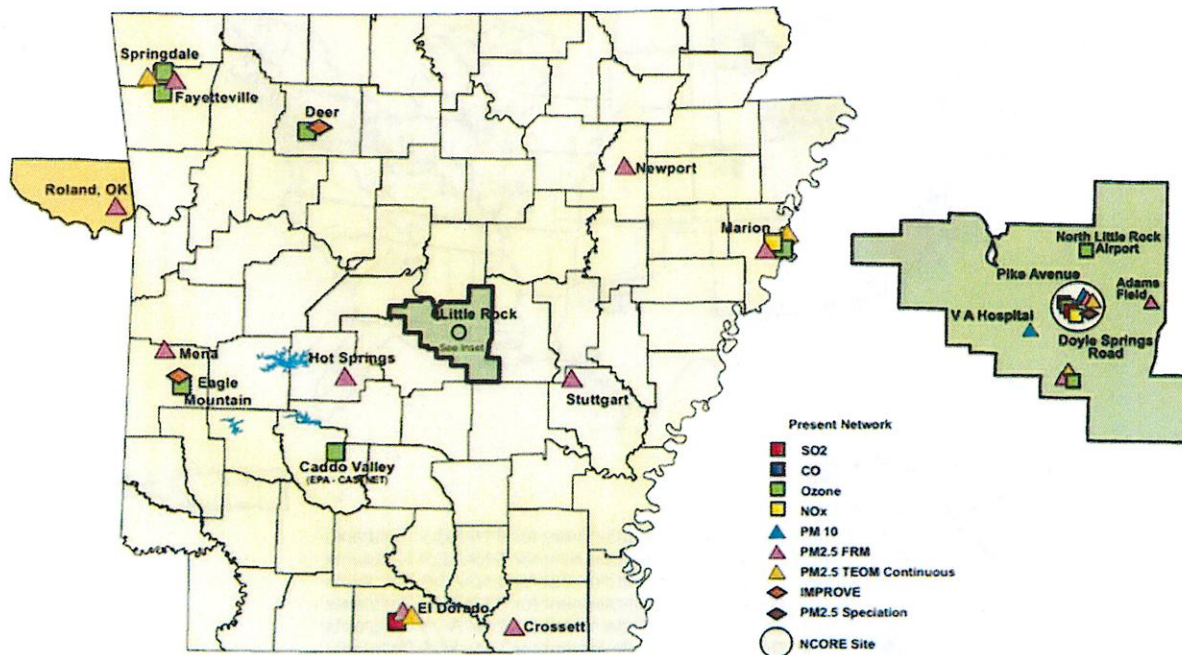
1. Where the highest concentration is expected to occur in the area covered by the monitor (usually determined through modelling);
2. What the expected representative concentrations are in areas of high population density;

<sup>6</sup> Crittenden County, which is part of the Memphis metropolitan statistical area, was designated a marginal nonattainment area for the 2008 ozone NAAQS. Crittenden County was redesignated to attainment in May of 2016 (81 FR 24030, April 25, 2016). This map has not been updated to reflect the redesignation of Crittenden County to attainment.

3. What impacts on ambient pollution levels significant sources or source categories may have; and
4. What the background concentration levels are.

Locations of Monitors in the Arkansas Ambient Air Monitoring Network are depicted in Figure 2.

Figure 2. Arkansas Ambient Air Monitoring Network



Arkansas's air monitors are strategically located throughout the state to ensure that data from the monitors provide high-quality information so that ADEQ can confirm that air quality programs in the state are adequately protecting public health and that environmental goals are being achieved. The Arkansas Ambient Air Monitoring Network is reviewed each year to detail the exact expected operation schedule for each monitor for the coming calendar year. The most recent annual network review was submitted to EPA on July 13, 2016. The network is evaluated every five years to determine whether the current number and location of monitors meets ADEQ's environmental monitoring objectives and satisfies federal monitoring requirements for each pollutant. The Five-Year Network Assessment is a robust analysis that includes meteorological analysis, probability analysis, correlation analysis, and historical trends. The Five-Year Network Assessment also outlines possible and expected changes to the network that may occur within the next five years based on changes in the regulations or projections of population growth. The most recent Five-Year Network Assessment was submitted to EPA on October 12, 2015. EPA acknowledged that the monitoring plan detailed in the Five-Year Network Assessment was adequate to meet federal requirements on July 22, 2016.

# Arkansas Department of Environmental Quality

## Checklist – Office of Air Quality

Review the checklist below for items to include in your application.

Included in Application?	Item	Initial Permit
<input type="checkbox"/>	General Information Forms	Yes
<input type="checkbox"/>	Emission Rate Table Forms	Yes
<input type="checkbox"/>	Calculations	Yes
<input type="checkbox"/>	Control Equipment Operating Parameters Forms	Yes
<input type="checkbox"/>	Process Flow Diagram	Yes
<input type="checkbox"/>	Process Description	Yes
<input type="checkbox"/>	USGS (Area) Map	Yes
<input type="checkbox"/>	Plot Plan	Yes
<input type="checkbox"/>	Property Description	Yes
<input type="checkbox"/>	Operating Scenarios	Yes
<input type="checkbox"/>	Equipment Specifications	Yes
<input type="checkbox"/>	Compliance Plan	Yes
<input type="checkbox"/>	Applicable Requirements	Yes
<input type="checkbox"/>	Compliance Schedule	Yes
<input type="checkbox"/>	USEPA Acid Rain Forms	Maybe
<input type="checkbox"/>	CSAPR Forms	Maybe
<input type="checkbox"/>	Detailed NSPS and NESHAP/MACT Requirements	Yes
<input type="checkbox"/>	Additional Information	Yes
<input type="checkbox"/>	List of Insignificant Activities Forms	Yes
<input type="checkbox"/>	Disclosure Statement Form	Yes
<input type="checkbox"/>	Certificate of Good Standing, Domestic and Foreign	Yes
<input type="checkbox"/>	Certification of Application Form	Yes
<input type="checkbox"/>	Certification of Compliance Form	Yes
<input type="checkbox"/>	Certification of Minor Modification Form	No
<input type="checkbox"/>	Request for Applicability of Class I Area Modeling Analysis Form	PSD Only Email to: AirPermits@adeq.state.ar.us

Office of Air Quality Checklist of actions required by Sun Paper	
<input type="checkbox"/>	Submit administratively complete application
<input type="checkbox"/>	Publish notice of application in accordance with Act 163 <i>local and state newspaper required to run for one day (ten-day comment period)</i>
<input type="checkbox"/>	Submit proof of publication
<input type="checkbox"/>	Submit proof of payment
<input type="checkbox"/>	Review pre-draft (five business days) <i>may submit administrative comments</i>
<input type="checkbox"/>	ADEQ issues draft permit public notice in local and state newspapers <i>(thirty- day comment period)</i>
<input type="checkbox"/>	Pay permit fee
<input type="checkbox"/>	Submit proof of local and state publications
<input type="checkbox"/>	Submit proof of payments
<input type="checkbox"/>	Submit comments to draft permit
<input type="checkbox"/>	Review pre-final permit (five business days)
<input type="checkbox"/>	Final permit issued



Office of Water Quality –Construction Stormwater Checklist of actions required by Sun Paper	
<input type="checkbox"/>	Submit administratively complete application <input type="checkbox"/> Notice of Intent <input type="checkbox"/> SWPPP Template
<input type="checkbox"/>	Submit application fee
<input type="checkbox"/>	Receive notice of coverage –Stormwater Permit (issues in thirty days*)
<input type="checkbox"/>	Submit Notice of Termination (NOT) after completion of construction
<input type="checkbox"/>	Receive Notice of Coverage (NOC)

Office of Water Quality –Industrial Stormwater Checklist of actions required by Sun Paper	
<input type="checkbox"/>	Submit administratively complete application <input type="checkbox"/> Notice of Intent
<input type="checkbox"/>	Submit application fee
<input type="checkbox"/>	Receive notice of coverage –Stormwater Permit (issues in thirty days*)
<input type="checkbox"/>	Submit Notice of Termination (NOT) after completion of construction
<input type="checkbox"/>	Receive Notice of Coverage (NOC)

\* Timeline goals set by ADEQ operating procedures are dependent on the facility/consultant's technical response adequacy and ability to correct deficiencies. Time frames may be extended for the individual permits if a public hearing is requested and granted. The time frame may also be extended if numerous comments from multiple parties are received.

Office of Water Quality - NPDES Permit  
Checklist of actions required by Sun Paper

- Submit administratively complete application
  - ADEQ Form 1
  - EPA Form 2D
  - EPA Form 2F
  - ADEQ Priority Pollutant Scan
  - Line drawing of process and treatment system

Included in Application?	Item	Initial Permit
<input type="checkbox"/>	Location map attached with physical location marked	Yes
<input type="checkbox"/>	FEMA map attached or other area map with confirmation that the area is unmapped by FEMA	Yes
<input type="checkbox"/>	Process flow diagram attached	Yes
<input type="checkbox"/>	USGS (Topo) Map	Yes
<input type="checkbox"/>	Plot Plan	Yes
	<b>State Construction:</b>	
<input type="checkbox"/>	Construction Calculations stamped by a PE	Yes
<input type="checkbox"/>	Plans & Specifications stamped by a PE	Yes
<input type="checkbox"/>	Construction Design Forms	Yes

- Submit Application Fee
- Publish notice of application in accordance with Act 163
- Submit proof of payment for Act 163 public notice
- Submit proof of publication for Act 163 public notice
- Review pre-draft ( five business days) - *(administrative comments)*
- ADEQ issues draft permit public notice in local and state newspapers *(thirty-day comment period)*
- Submit proof of publication payment of draft permit
- Submit comments to draft permit
- Final permit issued

Office of Land Resources – Waste Tire Processing Facility Individual Permit  
Checklist of actions required by Sun Paper

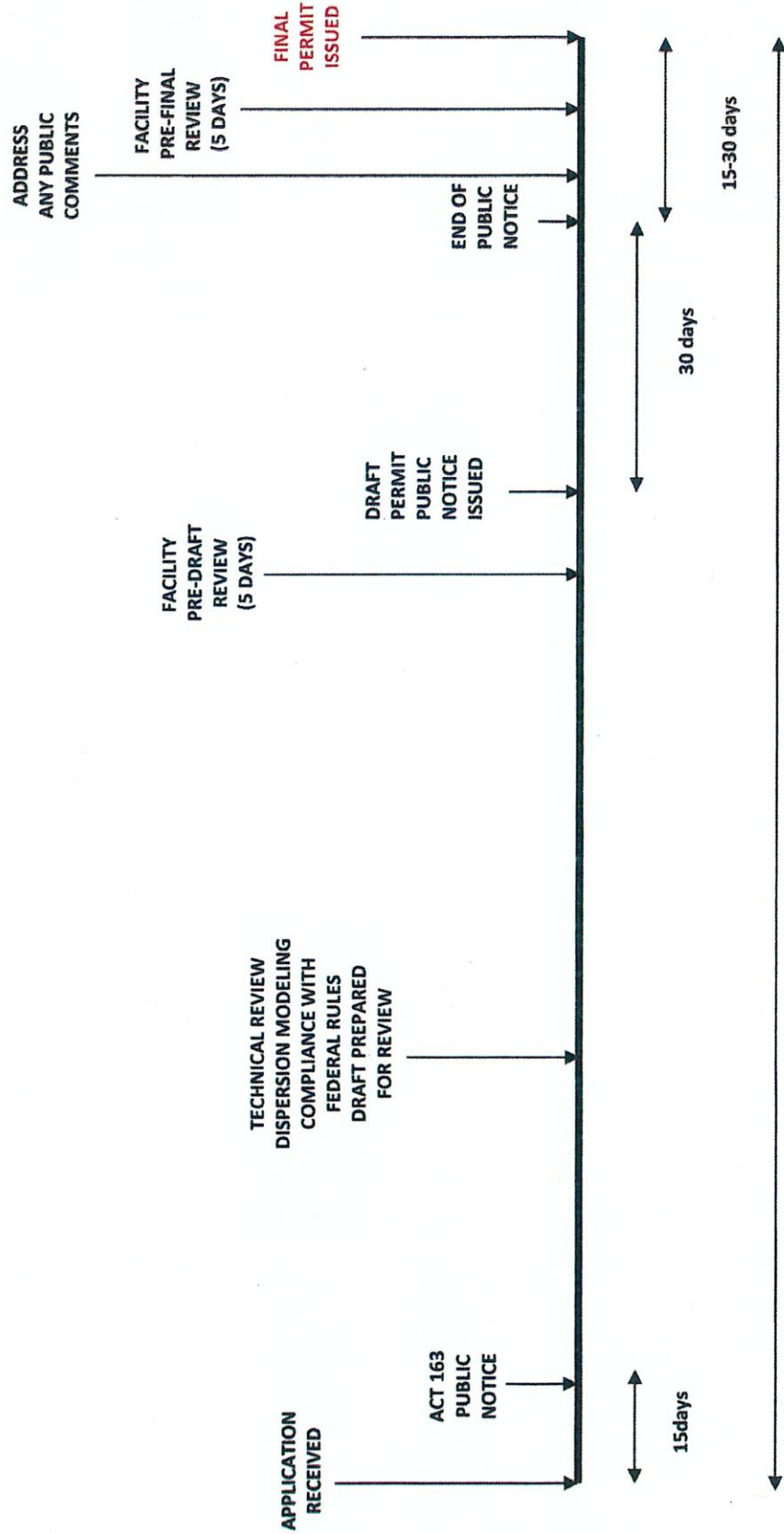
- Submit administratively complete application
  - Waste Tire Site Notification
  - Waste Tire Processing Facility Permit Application

Included in Application?	Item	Initial Permit
<input type="checkbox"/>	Maps	Yes
<input type="checkbox"/>	Plan Sheets	Yes
<input type="checkbox"/>	Drawings	Yes
<input type="checkbox"/>	Isometrics	Yes
<input type="checkbox"/>	Cross Sections	Yes
<input type="checkbox"/>	Aerial Photographs	Yes
<input type="checkbox"/>	USGS (Area) Map	Yes
<input type="checkbox"/>	Plot Plan	Yes

- Publish notice of application in accordance with Act 163  
*local and state newspaper required to run for one day (ten-day comment period)*
- Submit proof of publication
- Submit proof of payment
- ADEQ issues draft permit and publish notice in local and state newspapers
- Pay permit fee
- Submit proof of local and state publications
- Submit proof of payments
- Submit comments to draft permit
- Review pre-final permit (five business days)
- Final permit issued



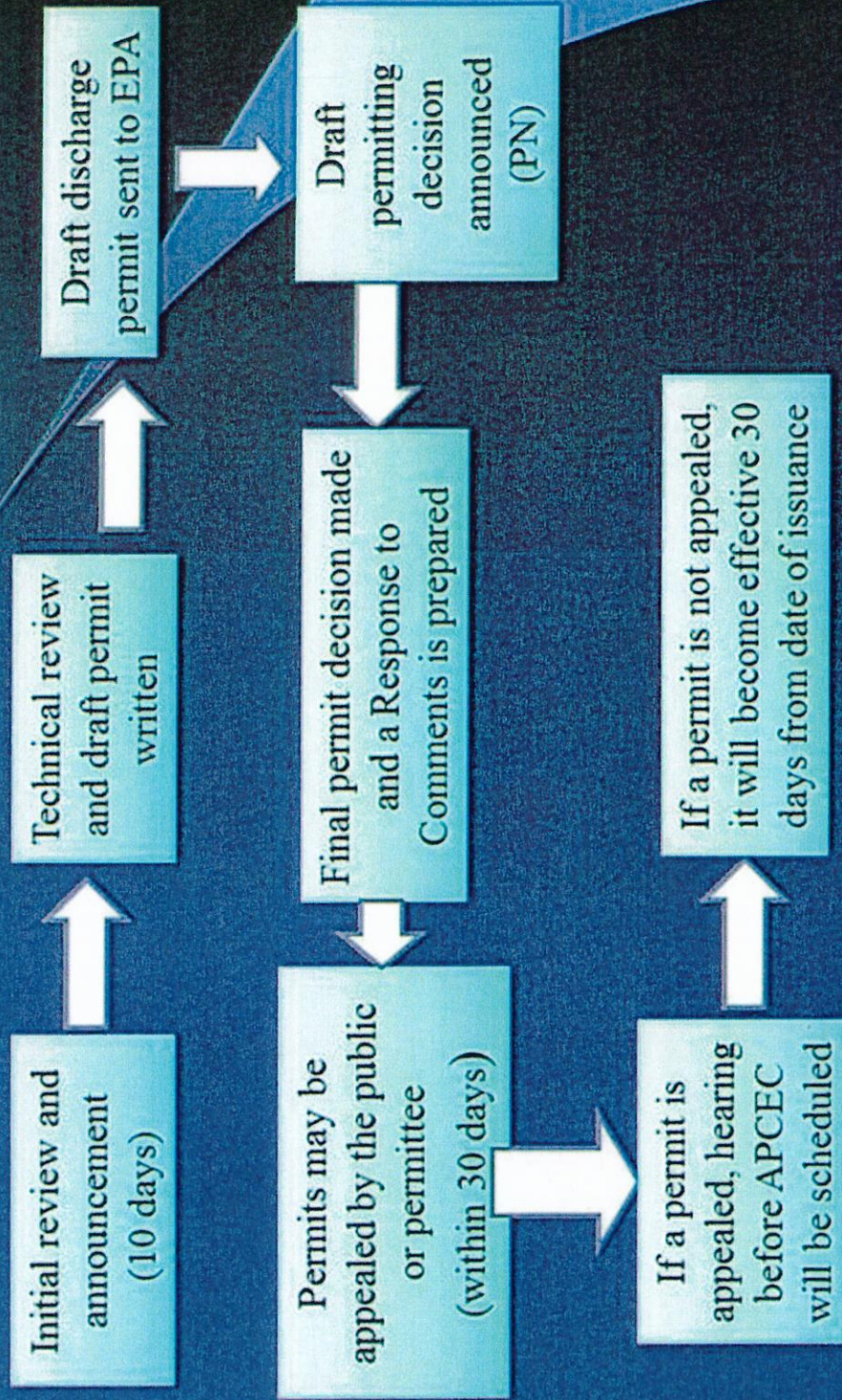
# AIR PERMIT TIMELINES



180 days (Depending on how long it takes to deal with any public comments)



# NPDES Permit Process







# Going, going, gone!

Permits In-House >180 Days

