

Air Quality Permitting Guidelines for Industrial Sources

Pinal County Air Quality Workshop

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Who needs an industrial permit?

Facilities that emit more than 5.5 pounds per day or 1 ton per year of any regulated pollutant.

Most Common Regulated Pollutants

- Nitrogen Oxides, Carbon Monoxide, Sulfur Dioxide (NO_x , CO , SO_2):

Usually products of combustion: boilers, heaters, generators...

Regulated Pollutants (cont.)

- Volatile Organic Compounds/Hazardous Air Pollutants (VOCs/HAPs)

Associated with spray paints, solvents, fuels and other organic chemicals.

HAPs can also be inorganic: Chlorine, lead and other metals...

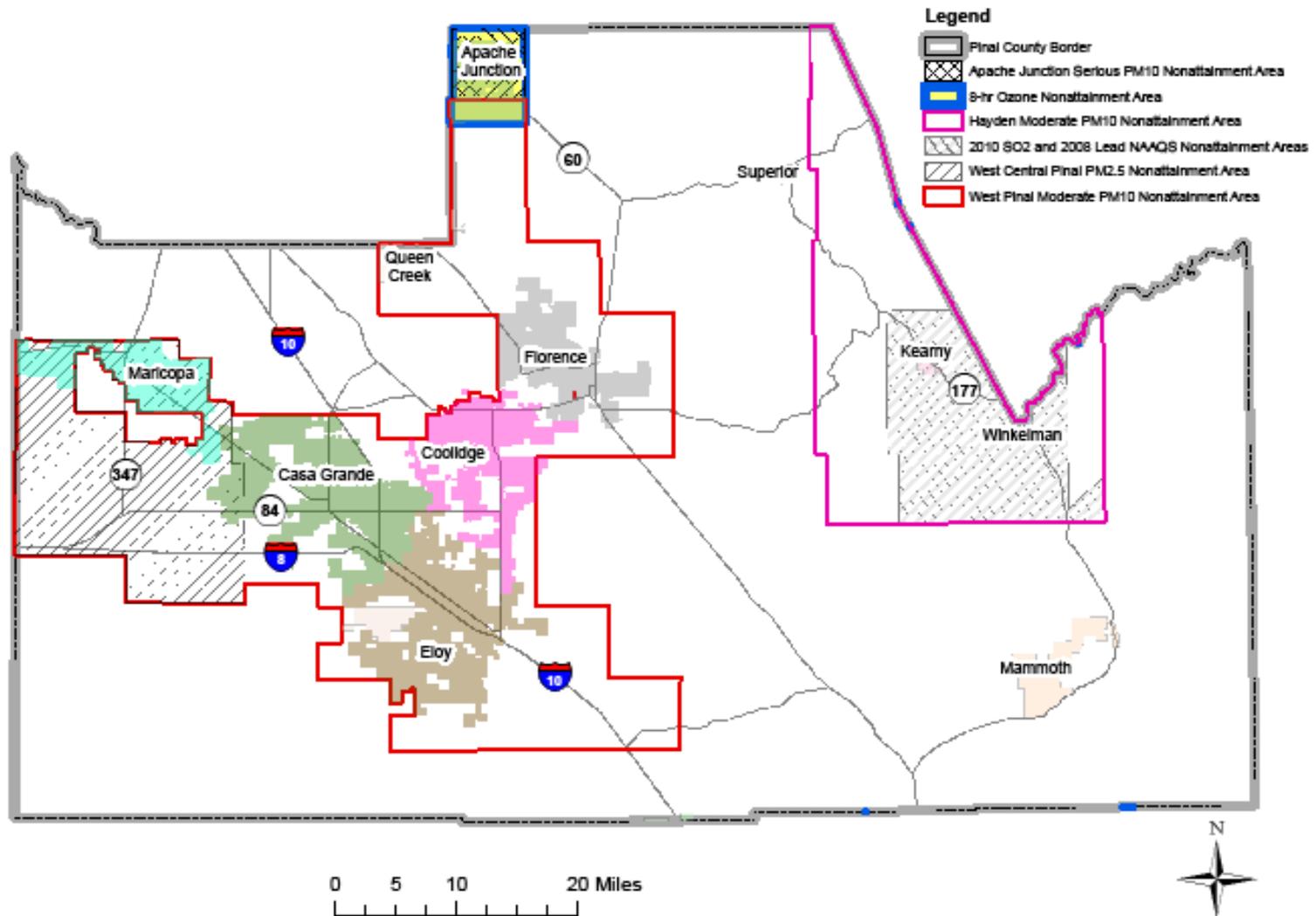
Regulated Pollutants (cont.)

- Particulate Matter (PM_{10} and $PM_{2.5}$)

PM_{10} , commonly referred to as “dust”: usually from grain/cotton handling, mining operations, general manufacturing...

$PM_{2.5}$ or “fine particles”: can be emitted from industrial combustion, vehicle exhaust, open fires...

Pinal County Nonattainment Areas



Stationary Sources and PM Nonattainment

● Small sources

- Area source rules may be incorporated into permits

● Medium sources

- Area source rules may be incorporated into permits
- Source might have to take Federally Enforceable limits to stay under 100 tons per year (tpy)
- May have to implement Reasonably Available Control Technology (RACT) level controls

● Large sources

- Nonattainment New Source Review (NNSR) for sources with a PM10 potential to emit (PTE) over 100 tpy
- New sources must install Lowest Achievable Emission Rate Technology (LAER) which does not consider economic impacts
- Existing sources must implement Reasonably Available Control Technology (RACT) level controls
- Offsets at a ratio of at least 1:1 will be required
- Area source rules may be incorporated into permits

What is the purpose of a Permit?

- The purpose of a permit is to identify all the air quality rules your facility is subject to: local (PDAQCD), State (Statutes) or Federal (EPA).
- A permit also contains air pollution limits for each significant emission source, defines allowable hourly and annual throughputs (e.g., fuel consumption in boilers), and consolidates monitoring, recordkeeping, and reporting requirements.
- Permits allow you to take certain limitations at your facility to avoid more stringent air quality requirements or higher fees.

Types of Permits

● Class I

New Source Review sources (PSD or NNSR)
Title V sources (above “major source”
thresholds)

● Class II

- General sources
- Medium & small spray paint operations
- Feed Mills, Metal Fabrication, Cotton Gins, Crematories, PERC Dry Cleaners
- Others

● Class III

Small gas stations, auto body shops, dry
cleaners...

Fees

- Application Fee (Non-refundable)
- Permit Processing Fee (not for Class III sources)
- Annual Fee (invoiced every year)
- Emissions Fee (only for Class I sources)

*Fees for 2015 are posted on our website.

*Some fees are adjusted annually by the Consumer Price Index (CPI).

Renewals

Permits valid for 5 years.

Letters to renew permits sent at least couple of months before the permit expiration date.



Revisions do not start the clock.

New Permit Application

You will need to submit:

- 1) Permit Application
- 2) Additional Forms for Fuel Burning equipment, Storage Tanks, Crushing and Screening equipment, Cotton Gins, Generators, Soil Vapor Extraction Units, Spray Paint Booths and Wastewater Treatment Plants.
- 3) Fill-in-able Forms available at <http://www.pinalcountyaz.gov/Departments/AirQuality/Pages/IndustrialPermits.aspx>

New Permit Application (cont.)

4. Follow filing procedures under:
“Generic Outline or Air Quality Permit Filing Instructions”

Information required includes but not limited to:

process description, site plan, flow diagram, plant and equipment capacities, MSDS sheets...

<http://pinalcountyaz.gov/Departments/AirQuality/Pages/IndustrialPermits.aspx>

Permit Changes

TYPES:

- ⦿ Permit Revision: Changes in equipment, process, products.
- ⦿ Permit Transfer: Ownership change.

Permit Revision Application

- Same application form as for “New” permits, but check “Revision” box.
- Same information needed as for “New” permits, but only in relation to changes and or modifications.
- Revision application fee applicable to Class I permits only.

Permit Transfers

- Use same Application form but check “Transfer” box.
- No processing fee associated with transfers.
- Apply before the transfer occurs.
- Transfers cannot be used for location changes, a new permit must issued.

Permit Issuance Timeframes

- Mandatory Public Notice period of 30 days for new permits, revisions and renewals.
- Class I and some large Class II permits have a Mandatory EPA review period of 45 days.
- Permit processing time depends on the complexity and the completeness of the application.

Area Source NESHAPs (40 CFR Part 63)

Some recent standards (subparts):

- 6H's – Paint Stripping and Miscellaneous Surface Coating (INCLUDES Autobody shops)
- 6W's – Plating/Polishing
- 6X's – Metal Fabrication/Finishing
- 6Z's – Aluminum, Copper and other non-ferrous Foundries
- 7C's – Paint Manufacturers
- 7D's – Prepared Feed Manufacturers.
- 4Z's (RICE) – Diesel and Natural Gas Engines.

Area Source NESHAPs (cont.)

- Each one contains a specific Compliance Date.
- Must submit INITIAL NOTIFICATION.
- Brochures available at www.epa.gov/ttn/atw/area/arearules.html

IMPORTANT

For new sources subjected to Pinal County's permitting thresholds an air quality permit is required before starting construction or operation.

For current permit holders a revised permit is required before any modifications or changes*.

*When in doubt call

Greenhouse Gas Developments

- On 6/23/14 the US Supreme Court issued a decision concerning Greenhouse Gases (GHG)
 - Sources that have to obtain a Prevention of Significant Deterioration (PSD) or Nonattainment New Source Review (NNSR) permit based on emissions of conventional pollutants have to implement Best Available Control Technology (BACT) for GHGs if their CO₂e PTE is 75,000 TPY or more
 - GHGs alone cannot trigger PSD, NNSR or Title V permitting.

Greenhouse Gas Developments

- The majority of the Tailoring Rule is still in place
 - The D.C. Court of Appeals will be reviewing how it is implemented
 - EPA will be required to further document why the 75,000 TPY level is appropriate
 - Sources may still need to quantify their GHG emissions in their application. Only PSD/NNSR “anyway” sources will have to conduct a BACT analysis
- The Mandatory Greenhouse Gas reporting rule is still in place

Who to call?

- ◉ Kale Walch, Senior Permit Engineer
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- ◉ Anu Jain, Permit Engineer
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QUESTIONS?

MSW Landfill NSPS XXX

- Will apply to landfills for which construction, modification or reconstruction is commenced on or after July 17, 2014
 - The NSPS has yet to be adopted so the date may change
- Installation of gas collection control systems required when landfill gas emissions reach or exceed 40 Mg NMOC per year
 - Currently the trigger is 50 Mg NMOC per year
- Clarifying the use of treated landfill gas for beneficial use
- Clarifying what constitutes landfill gas treatment
- Clarifying that the standards apply at all times, including startup, shutdown and malfunction periods.
- Other clarifications

ANPRM for Emission Guidelines and Compliance Times for MSW Landfills

- Advanced Notice of Proposed Rulemaking for existing MSW Landfills
- EPA is soliciting comments on:
 - Reducing or eliminating the design capacity threshold (currently 2.5 Mg and 2.5 m³)
 - Reducing the NMOC Emission Threshold (currently 50 Mg/yr, could go to 40 Mg/yr)
 - Adjustments to initial or expansion lag time (period between when the landfill exceeds the NMOC emission rate threshold and when controls are required)
 - Adjustments to the length of time that control equipment must remain operational
 - Use of a combination of waste-in-place and gas heat input capacity in lieu of design capacity and NMOC thresholds to determine when GCCS is required
 - Potential unique treatment of landfills located in wet climate and those employing leachate recirculation or other liquid addition
 - Reviewing the definition of modification