## Tribal New Source Review (NSR) Rule Webinar Industry, State and Local Agencies

#### **US Environmental Protection Agency**

Office of Air Quality Planning and Standards (OAQPS)

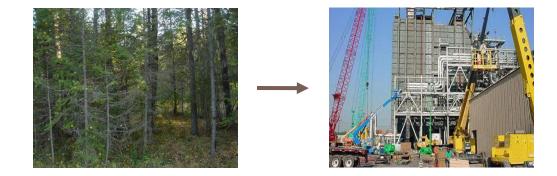
August 2, 2011

#### Briefing Purpose

- Brief overview of NSR program
- Summary of Tribal Nonattainment NSR Program Provisions
- Summary of Tribal Minor NSR Program Provisions

#### New Source Review (NSR)

- A program that requires industrial facilities to install modern pollution control equipment when:
  - they are built or



when making a change that increases emissions significantly

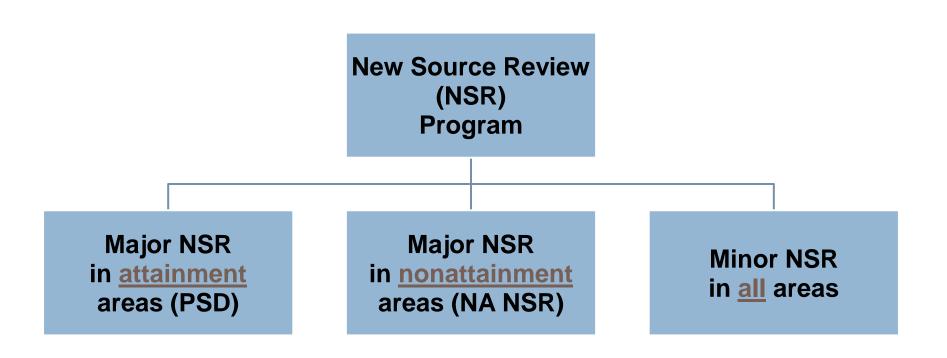




#### Purpose of the NSR Program

- To protect public health and the environment
  - As new industrial facilities are built and existing facilities expand
- Program ensures that air quality:
  - does not worsen where the air is currently unhealthy to breathe (i.e., nonattainment areas)
  - is not significantly degraded where the air is currently clean (i.e., attainment areas)
- Purpose accomplished through pre-construction permits

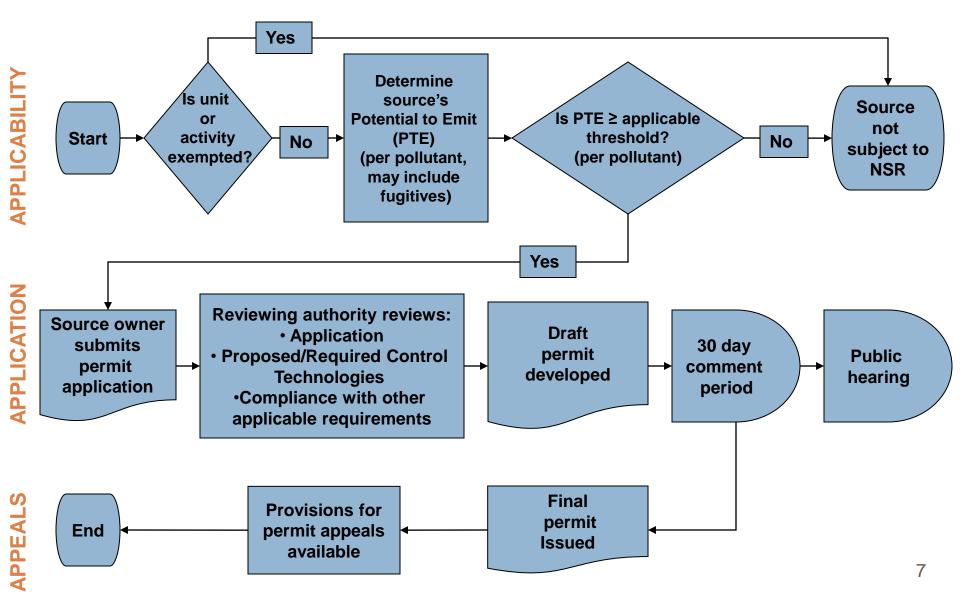
#### Types of NSR Permitting Programs



## Benefits of the Tribal NSR Rules for Tribes

- Filling regulatory gap
- Leveling the economic playing field
- Providing a cost-effective and timely permitting mechanism
- Protecting tribal sovereignty from state incursion by clarifying jurisdiction
- Ensuring resources are protected through controlled growth
- Building tribal capacity
  - Supply potential model for Tribal Implementation Plan (TIP) development
- Allowing administration of the program by tribes through delegation

## Permitting Process (Simplified)



## Nonattainment NSR Program (NA NSR) Requirements

#### **US Environmental Protection Agency**

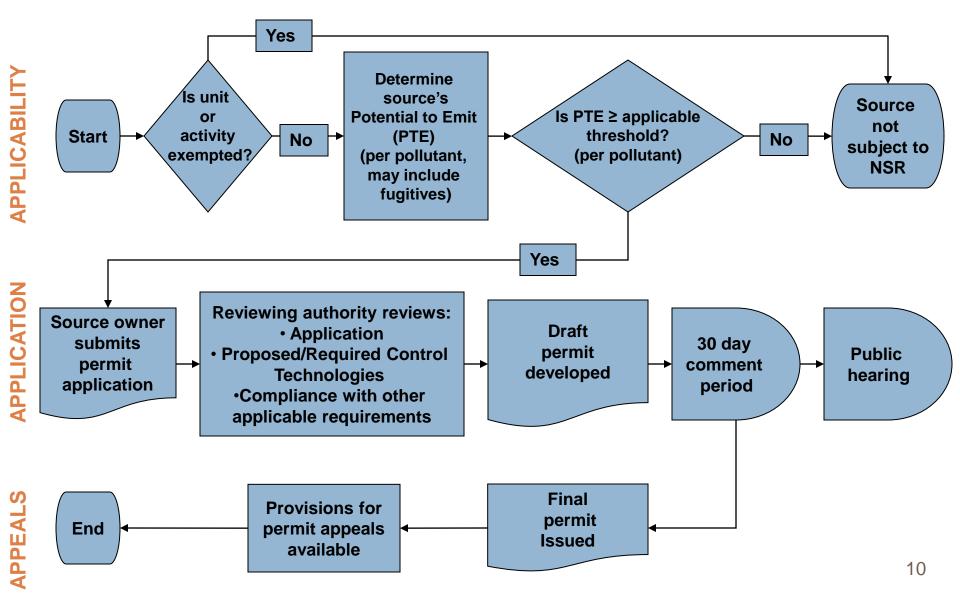
Office of Air Quality Planning and Standards (OAQPS)

Air Quality Policy Division (AQPD)/New Source Review Group (NSRG)

#### Presentation Outline

- Re-cap of Permitting process
- Brief Description of NA NSR Program
- Explanation of Proposed and Final Provisions
- Main Requirements Summary

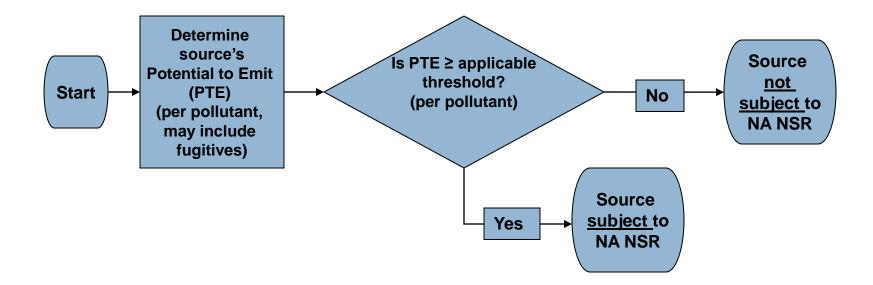
## Permitting Process (Simplified)



## Applicability: New and Modified Sources

- New sources locating in nonattainment areas with air emissions of 100 tpy or more
  - Lower thresholds apply depending on nonattainment severity
- Modified sources located in nonattainment areas with a net emissions increase higher than the significant emissions rate
- Regulated pollutants: NAAQS only

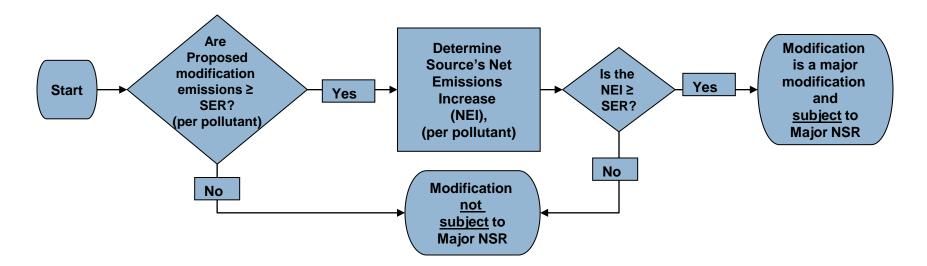
## Applicability: New Source



#### Thresholds:

 100 tpy or lower depending on nonattainment severity (<u>See Presentation Appendix</u>)

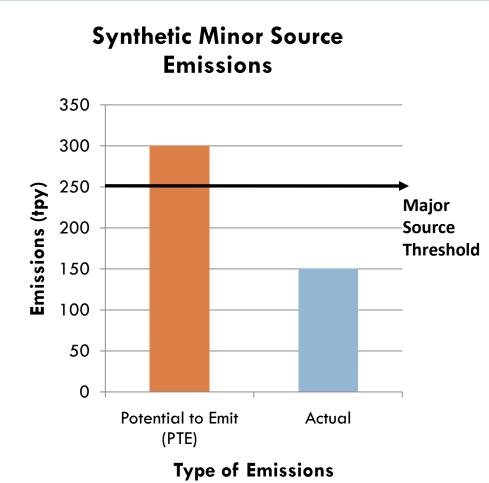
#### **Applicability: Modified Source**



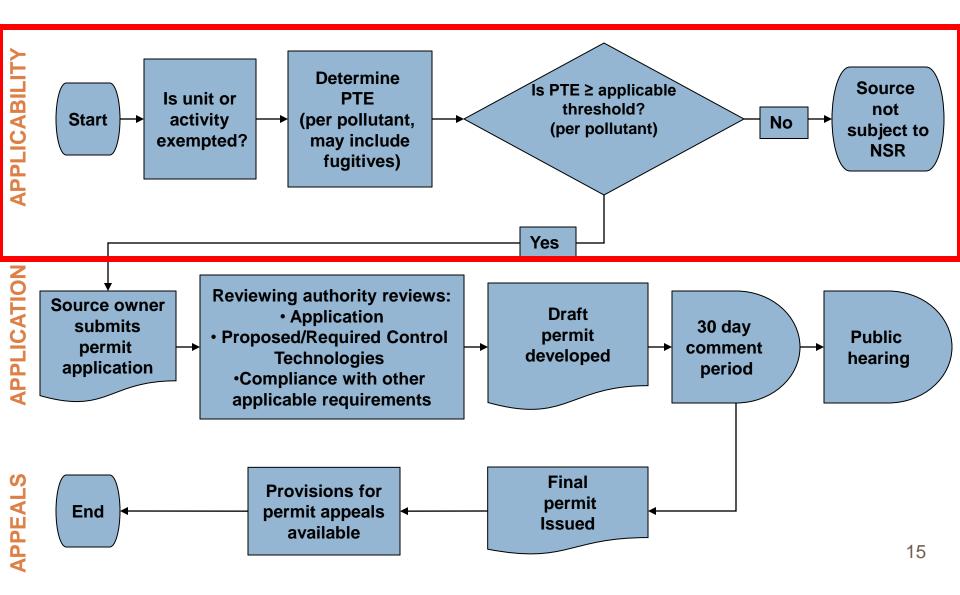
- SER emissions rate limit in tpy, varies by pollutant
- NEI the emissions increase from the project itself AND the sum of the emissions increases and decreases of all projects implemented usually over the last five years that were not otherwise considered in a NA NSR permit action

# Applicability: New or Modified Source not Subject to PSD

- PTE less than thresholds
- Source is "grandfathered"
- Source opted for "synthetic minor" permit



## Permitting Process (Simplified)



#### Application:

#### NA NSR Permit Requirements

- Main requirements:
  - 1. Install Lowest Achievable Emission Rate (LAER) technologies
  - 2. Obtain emission offsets
  - 3. Perform alternative sites analysis
  - 4. Show statewide facility compliance w/air regulations
  - 5. Allow for opportunities for public involvement
- For Indian Country: same requirements as current NA Major NSR rules for areas lacking an implementation plan – 40 CFR Part 51, Appendix S

## Application: Lowest Achievable Emission Rate

- Rate that has been achieved or is achievable for a defined source
- Rate may be in a permit or regulation
- Requirement does not consider the following:
  - Economic
  - Energy
  - Environmental
  - Other factors
- No comments received about this requirement

#### **Application: Emission Offsets**

- Emissions reductions from existing sources to balance emissions from proposed new or modified sources
  - Offset must be at least 1:1 (<u>See Appendix</u>)
- Emissions offsets reductions must be:
  - Quantifiable, Enforceable, Permanent and Surplus (QEPS)
  - From Actual Emissions Real, No "paper" Reductions
  - Federally enforceable at the time of permit issuance
  - In effect before the new source can commence operation
- We proposed two options for the lack of availability of offsets in Indian country

- Economic Development Zone (EDZ)
  - Zone targeted for economic development.
  - Usually participating communities demonstrate:
    - pervasive poverty
    - high unemployment
    - general distress throughout the designated area
- Criteria for this waiver. Source emissions:
  - Consistent with the achievement of reasonable further progress
  - Will not interfere with attainment of the applicable NAAQS by the attainment date

- Appendix S, Paragraph VI Option
  - Source exempt from offset requirement until attainment date for NAAQS passes (temporary)
- Criteria for this waiver. Source:
  - Complies with applicable implementation plan emission limitations
  - Will not interfere with the attainment date for regulated NSR pollutant
  - EPA determines these criteria are satisfied and publishes finding in Federal Register

- We do not have the legal authority to waive the offset requirement under section 173 of the Act or under the Tribal Air Rule (TAR)
- Only finalizing EDZ option for sources that satisfy qualifying criteria. Generally, tribes who develop TIPs and request EDZ designation
- We encourage states and tribes to work together in the creation and use of offset banks
  - E.g. Memorandums of Understanding (MOU)

- EPA can assist tribes interested in developing offset banks
- EPA addressing general lack of offset availability
  - e.g., Finalized rule that allows for the inter-pollutant and inter-precursor trading of offsets between direct PM-2.5 emissions and its precursors ("Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers" (73 FR 28340))
- We continue to explore non-traditional sources of offsets such as offsets from mobile sources and minor sources

# Application: Alternative Sites Analysis

- An analysis by the source owner of:
  - Alternative sites
  - Sizes
  - Production processes
  - Environmental control techniques
- Analysis for such proposed source must demonstrate that benefits significantly outweigh:
  - the environmental impacts
  - social costs imposed as a result of source location, construction, or modification

## Application: Alternative Sites Analysis (Cont.)

 Section 173 alternate site analysis provision was inadvertently missing from 40 CFR Part 51,
 Appendix S regulations

Added requirement to Appendix S to codify section
 173 requirement in these implementing regulations

# Application: Compliance Certification

- □ A certification by proposed source owner
- Must certify that all sources owned or operated by this source owner in the same state as the proposed source are:
  - In compliance or
  - On an approved schedule for compliance with all applicable requirements

# Application: Compliance Certification (Cont.)

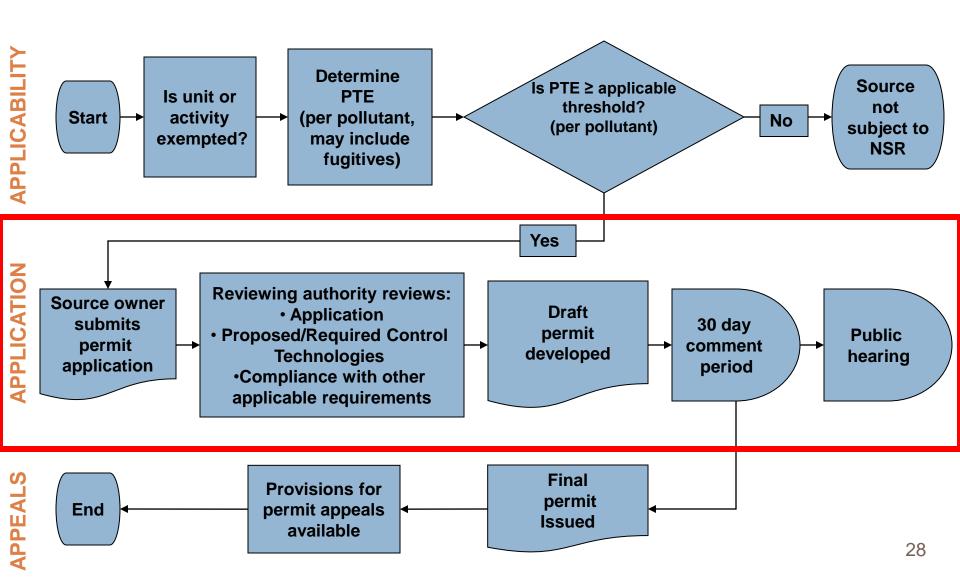
 Asked for comments as to whether that certification, for purposes of the Tribal NA major NSR rule, should be State-wide, Indian country-wide or per tribe

- Finalizing state-wide facility compliance
  - Provides a broad enough look at the compliance history of the company, without overburden
  - Reflects a geographic approach to the certification rather than an approach based on the entity that is sovereign.

#### **Application:** Public Involvement

- Reviewing authority is required to provide:
  - Public notice to the affected community and the general public on the draft permit
  - At least a 30 day public comment period on the draft permit
  - Opportunity for public hearing on draft permit, if requested by public
- All public comments must be considered before a final permit is developed
- A Technical Support Document (TSD), generally including responses to comments, may also be available with the final permit

### Permitting Process (Simplified)



## Appeals

- Provisions for permit appeals available under the program
- Appeals are conducted through the EPA's Environmental Appeals Board (EAB)
- If all remedies for permit appeal through the EAB are exhausted, person may appeal to Federal Court

#### Key Points to Remember: NA NSR

- Program for major sources located in nonattainment areas (generally for emissions at or higher than 100 tpy)
- Pollutants regulated: NAAQS only
- Main requirement: Lowest Achievable Emission Rate (LAER)
- Permits are usually issued no later than 1 year after the date the permit application is deemed complete

# Tribal Minor NSR Program Requirements

#### **US Environmental Protection Agency**

Office of Air Quality Planning and Standards (OAQPS)

Air Quality Policy Division (AQPD)/New Source Review Group (NSRG)

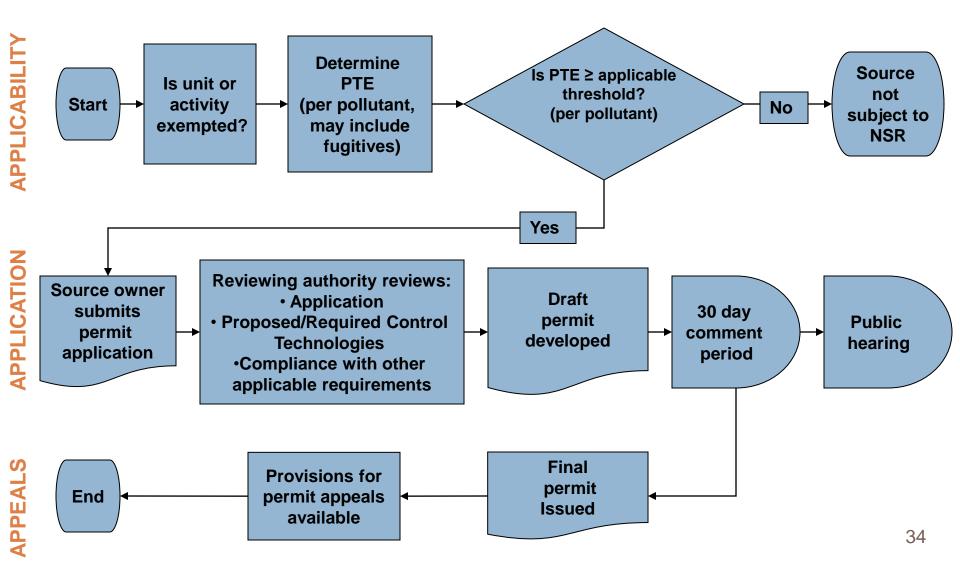
#### Presentation Outline

- Description of Covered Sources
- □ Re-cap of Permitting Process
- Description of Tribal Minor NSR Requirements
- Main Requirements Summary

#### Tribal Minor NSR Program

- Covers:
  - True Minor Sources
    - Sources with actual emissions below major source thresholds and, in the case of this rule, above minor NSR thresholds
  - Synthetic Minor Sources
    - Major sources who restrict their emissions to become minor sources
  - Minor Modifications at Major Sources
    - Small modifications (low emissions) at major sources
- Regulated pollutants: NAAQS and other pollutants

#### Permitting Process (Simplified)



#### **Applicability: Exempted Units**

- Units or activities exempted from permitting
- Proposed 10 exempted
   units or activities finalized 7

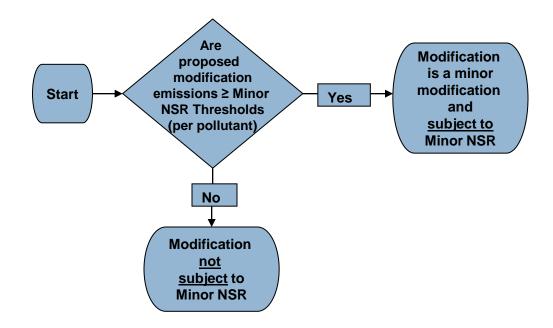
 We intend to propose a separate rule to seek comment on whether additional units or activities should be exempted

- Mobile sources
- Ventilating units for comfort that do not exhaust air pollutants into the ambient air from any manufacturing of other industrial processes
- Noncommercial food preparation
- Consumer use of office equipment and products
- Janitorial services and consumer use of janitorial products
- Internal combustion engines used for landscaping purposes
- Bench scale laboratory activities, except for laboratory fume hoods and vents

# Applicability: New Sources Potential to Emit (PTE)

- The highest amounts of pollutants that the source could release into the air based on the equipment design (calculated per pollutant)
- It can also consider limitations on source operation as well as emission controls
  - Ex. Restrictions on hours of operation instead of 8760 hrs
- Includes fugitive emissions if the source is part of the <u>28 source</u>
   <u>category list</u>
  - Emissions that enter the atmosphere from a source without first passing through a stack or duct designed to direct or control their flow

# Applicability: Modifications Allowable-to-Allowable Test



- Allowables enforceable emission limitations on max. capacity
- If unit was unpermitted or is added, emission increase based on PTE
- Includes fugitive emissions if the source is part of 28 source category list

# Applicability: Minor Source Thresholds

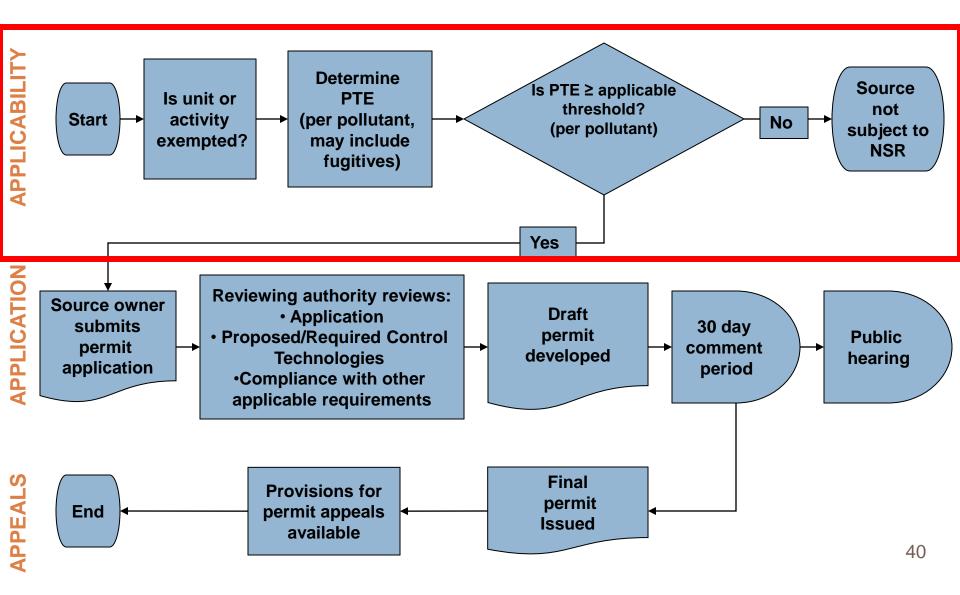
- Cutoff levels for which sources with emissions lower than the thresholds would typically be exempt from the minor NSR program
- Vary by pollutant
- More stringent for nonattainment areas than attainment areas
- Currently no thresholds for Greenhouse Gases (GHGs)

#### 39

# Applicability: Minor Tribal NSR Rule Thresholds

Regulated NSR Pollutant	For Nonattainment Areas (tpy)	For Attainment Areas (tpy)
Carbon monoxide (CO)	5	10
Oxides of nitrogen (NO <sub>x</sub> )	5	10
Sulfur dioxide (SO2)	5	10
Volatile organic compounds (VOC)	2	5
PM	5	10
PM-10	1	5
PM-2.5	0.6	3
Lead	0.1	0.1
Fluorides	NA	1
Sulfuric acid mist	NA	2
Hydrogen sulfide (H <sub>2</sub> S)	NA	2
Total reduced sulfur (including H <sub>2</sub> S)	NA	2
Reduced sulfur compounds (including H <sub>2</sub> S)	NA	2
Municipal waste combustor emissions	NA	2
Municipal solid waste landfills emissions	NA	10

## Permitting Process (Simplified)



## Application:

### Types of Permit Applications

#### 1. Site-Specific Permit

- Case-by-case determination of source emissions limits and control technology requirements, if any are required
- Available for true minor sources & minor mods. at major sources

#### 2. General Permit (GP)

Requirements are determined in advance for a number of similar equipment types or facilities to simplify permit issuance process

#### 3. Synthetic Minor Permit

- Limits PTE for sources that have the capacity to emit pollutants at or above the major source thresholds, but voluntarily accept emissions limitations to operate as minor sources
- Available for regulated NSR pollutants and toxic air pollutants

## Application:

#### Types of Permit Applications (Cont.)

- □ General Permits:
  - Not Allowed for Synthetic Minor Sources
  - Developed after opportunity of public notice and comment

- This Minor NSR program terminates the 1999 PTE Transition Policy
  - Sources that would otherwise be major were allowed to obtain synthetic minor status if their actual emissions remained below 50% of major source threshold

# Application: Types of Permit Applications (Cont.)

- Case-by-case MACT determinations allowed under sitespecific permits
- MACT compliance determined on a case-by-case basis if:
  - No MACT standard for a source category has been established
  - There is no EPA-approved program
- As proposed minor NSR program will be used as one of the "other administrative procedures for preconstruction review and approval"
  - Applicable sources will be major for HAPs and minor for NSR
  - Sources will eventually need a Part 71 permit for major HAP emissions

# Application: Permit Application Information

- Identifying information (name, address, etc.)
- Description of Source's Processes and Products
- List of all affected emissions units and its emissions
  - New Units PTE, including any restrictions on PTE
  - Modified Units allowables both before and after the modification, including any restrictions on emissions
- Description of any existing air pollution control equipment
- Description of any limitations on source operation

# Application: Permit Fees

 Received numerous comments requesting us to allow collection of permit fees to cover program costs

 CAA does not give the Agency explicit authority to charge permit fees for preconstruction permitting

 Under a delegation agreement or TIP, tribes can charge fees under their own authority

# Application: Control Technology Review

- By control technology we mean:
  - Pollution prevention techniques
  - Add-on pollution control equipment
  - Design and equipment specifications
  - Work practices and operational standards
- Site-Specific Permits
  - Case-by-case determination
- General Permits
  - Determined during the dev. of the GP and after opportunity for public notice & comment

# Application: Air Quality Impact Analysis (AQIA)

 Analysis conducted if reviewing authority is concerned that minor source will cause or contribute to a NAAQS or increment violation

In accordance with 40 CFR Part 51, Appendix W

We plan to develop guidance on scope of AQIA

# Application: Monitoring, Recordkeeping & Reporting Req.

#### Monitoring

- Sufficient to assure compliance with control technology requirements
  - May include: CEMS, PEMS, CPMS, equipment inspections, mass balances, periodic performance tests and/or emissions factors

#### □ Recordkeeping

- Sufficient to assure compliance with emission limitations
- Records should be retained for 5 years

#### □ Reporting

- Annual monitoring reports to show compliance with emission limitations
- Prompt reports of deviations from permit requirements

#### **Application: Permit Issuance Process**

- □ True Minor Sources Seeking Site-Specific Permits
  - Application completeness review 45 days
  - Public Comment Period 30 days
  - Public Hearing If sufficient interest
  - Permit Issuance Timeframe
    - No later than 135 days after the application is deemed complete

# Application: Permit Issuance Process (Continued)

- □ True Minor Sources Seeking General Permits
  - Application completeness review 45 days
    - Reviewing Authority 30 days
    - Source Owner or Operator 15 days
  - Public Comment Period No public comment period
  - Public Hearing If sufficient interest
  - Permit Issuance Timeframe
    - No later than 90 days after date coverage request is submitted

# Application: Permit Issuance Process (Continued)

- Synthetic Minors Permits and Minor Modifications at Major Sources under Site-Specific Permits
  - Application completeness review 60 days
  - Public Comment Period 30 days
  - Public Hearing If sufficient interest
  - Permit Issuance Timeframe
    - No later than 1 year after the application is deemed complete

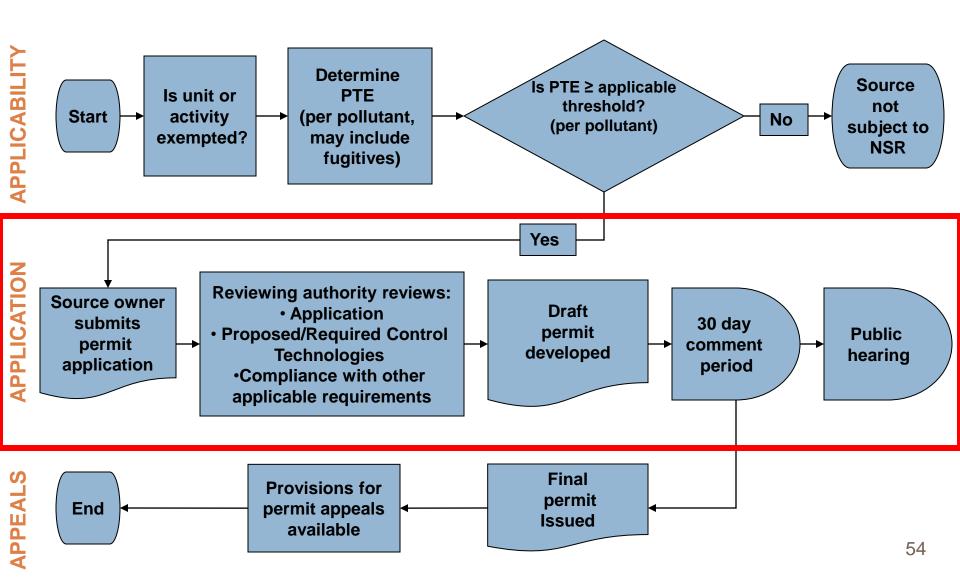
# Application: Public Participation Requirements

- For site-specific permits, synthetic minor permits and the initial development of general permit, reviewing authority:
  - Must provide 30-day public comment period on the draft permit
  - Must mail a notice of the draft permit to the applicant, the Indian Governing Body, and surrounding tribal, state and local air pollution authorities
  - May use additional approaches to public noticing such as websites, newspapers, and mailing lists

# Application: Public Participation Requirements

- For source requesting coverage under a general permit
  - No public comment period when requesting coverage
  - Source must submit a copy of the coverage request to the tribe in the area where source is locating
  - EPA will post information of coverage request on website
  - Public can notify us of any concerns about a source's eligibility to construct under a general permit

## Permitting Process (Simplified)



#### Final Permit

- After a decisions to issue or deny the permit, reviewing authority must notify the applicant in writing
- If a final permit is issued, we must provide adequate public notice of the decision
  - Synthetic minor permits and site-specific permits for minor modifications at major sources
    - Copy of decision available at all locations where draft permit was made available
  - Site-specific permits for true minor sources
    - Decision noticed using one ore more of the additional approaches to public noticing such as websites, newspapers, and mailing lists
  - General permits for true minor sources
    - Copy of the letter granting request for coverage posted at site

#### Permit Term

- Permit remains valid as long as source:
  - Commences construction within 18 months after effective date of permit
  - Does not discontinue construction for a period of 18 months or more
  - Completes construction in a reasonable time

#### Permit Reopenings

- Usually if permit contains a material mistake or fails to assure compliance with applicable requirements
  - Only reviewing authority can reopen a permit
- Permit reopenings that increase the emission limits will be public noticed
  - Using one ore more of the additional approaches to public noticing such as websites, newspapers, and mailing lists
- Provisions differ from proposal since we proposed that any person (including the permittee) may petition the reviewing authority to reopen a permit for a cause

### **Appeals: Permit Appeals**

## Administrative Permit Appeals (Environmental Appeals Board)

- Appeals must be filed within 30 days after a final permit decision has been issued
- Upon filing of a petition for review,
   the permit will be stayed
- Motion to reconsider the final EAB order must be filed within 10 days
- If all remedies are exhausted,
   person may appeal to Federal Court

#### **Judicial Permit Appeals**

- Permits:
  - are effective upon issuance
  - not stayed by filing for an appeal
    - To stay a permit, petition under the Administrative Procedures Act (APA) 5 U.S.C. 705 must be filed
- Source can have permit revoked after proceeding with construction while appeal was pending

#### Finalized EAB Option

### Treatment of Existing Minor Sources

- Proposed three options for how to treat existing minor sources:
  - Option 1 New permit not needed initially, only when a minor modification triggers NSR
  - Option 2 New permit not needed initially, but existing sources must register within 1 year after rule's effective date
  - Option 3 Existing minors need new permit shortly after the rule is final
- Finalizing modified option 2
  - Existing true minor sources have 18 months (March 1, 2013) after the effective date of the rule (August 30, 2011) to register or 90 days after they begin operation, whichever is later
- Registration requirements only apply to true minor sources

#### Registration Requirements

- Identifying information
- Description of source processes and products
- List of all emission units and activities
- Production rates information
- Identification and description of any existing air pollution control equipment
- Existing limitations on source operation
- Additional requirements:
  - Report of relocation
  - Report of change of ownership
  - Report of closure

# Treatment of Existing Synthetic Minor Sources

- Proposed that these sources must submit a permit application within 1 year of rule's effective date (August 30, 2011)
- Finalizing various provisions depending on the mechanism existing source used to obtain synthetic minor status
- Existing synthetic minor sources under Region 10's Federal Air Rule for Reservations (FARR) or an EPA-approved rule or program limiting PTE
  - No action needed unless source proposes a modification after rule's effective date (August 30, 2011)

# Treatment of Existing Synthetic Minor Sources (Continued)

- Existing synthetic minor sources established under a permit pursuant to the part 71 program. Region has the discretion to:
  - Require a permit application within 1 year of this rule's effective date (August 30, 2011)
  - Require a permit application under this rule at the same time the source owner applies to renew its part 71 permit, or
  - Allow source to continue to maintain synthetic minor status through part
     71 permit
- Existing synthetic minor source status established through a mechanism other than those described above (e.g. PTE transition policy)
  - Permit application required within 1 year of this rule's effective date (August 30, 2011)

# Implementing the Minor NSR Rule in Phases

- Proposed that entire rule would be effective 60 days after publication in the <u>Federal Register</u> – August 30, 2011
- Commenters very concerned about workload rule would bring
- Finalizing that:
  - New and modified synthetic minor sources, minor modifications at major sources, and new and modified major sources in nonattainment areas are subject to the rule on the rule's effective date - August 30, 2011
  - True minor sources are subject to the rule 36 months (September 2, 2014) after the rules' effective date (August 30, 2011) or 6 months after a general permit for a source category is published, whichever is earlier

## Delegation of Enforcement Authority to Tribes

- Many commenters requested delegation of enforcement authority (civil and criminal)
- Proposed that when a tribe requests delegation of the Federal NSR Program EPA will retain all enforcement authority (civil and criminal)
- Finalized that any permits issued under the Federal program remain Federal in character and continue to be enforceable by us (civil and criminal) in Federal court

#### Key Points to Remember: Minor NSR

- Program for minor sources in both attainment and nonattainment areas (generally for emissions lower than 100 or 250 tpy and higher than minor NSR thresholds)
- Pollutants regulated: NAAQS and other pollutants
- Main requirement: Control Technology Review
- Three types of permit options: site-specific permits, general permits, and synthetic minor permits

#### Contacts

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## Appendix

## Significant Emission Rates (SERs)

<u>SER</u> – a rate of emissions that would equal or exceed any of the following rates:

Pollutant	SER (tpy)	Pollutant	SER (tpy)
Carbon Monoxide	100	Sulfuric Acid Mist	7
Nitrogen Oxides	40	Hydrogen Sulfide (H <sub>2</sub> S)	10
Sulfur Dioxide	40	Total Reduced Sulfur (Includes H <sub>2</sub> S)	10
Particulate Matter (PM10)	15	Reduced Sulfur Compounds (Includes H <sub>2</sub> S)	10
Particulate Matter (PM2.5)	10; 40 for VOCs, NOx or SO <sub>2</sub>	Municipal Waste Combustor Organics	3.5*10-6
Ozone	40 VOCs or NOx	Municipal Waste Combustor Metals	15
Lead	0.6	Municipal Waste Combustor for Acid Gases	40
Fluorides	3	Municipal Solid Waste Landfills Emissions	50

Notwithstanding the above, any emissions rate or any net emissions increase associated with a major stationary source or major modification, which could construct within 10 km of a Class I area, and have an impact on such area equal to or greater than 1  $\mu$ g/m³ (24-hour average)

## NA NSR Major Source Thresholds

Nonattainment Areas				
Pollutant	Nonattainment Classification	<b>Major Source Threshold</b>	Offset Ratio	
Ozone	Marginal ( $\geq 0.085 < 0.092 \text{ ppm}$ )	100 tpy of VOC or NOx	1.1 to 1	
	Moderate ( $\ge 0.092 < 0.107 \text{ ppm}$ )	100 tpy of VOC or NOx	1.15 to 1	
	Serious ( $\ge 0.107 < 0.120 \text{ ppm}$ )	50 tpy of VOC or NOx	1.2 to 1	
	Severe ( $\geq 0.120 < 0.187 \text{ ppm}$ )	25 tpy of VOC or NOx	1.3 to 1	
	Extreme (= 0.187 ppm and up)	10 tpy of VOC or NOx	1.5 to 1	
Particulate Matter	Moderate	100 tpy	-	
	Serious	70 tpy	-	
Carbon Monoxide	Moderate (9.1 – 16.4 ppm)	100 tpy	-	
	Serious (16.5 ppm and up	50 tpy	-	
Sulfur Dioxide, Nitrogen Oxides, and Lead	Only one nonattainment classification	100 tpy	-	

14. Phosphate rock processing plants

## **28** Source Categories List

1. Coal cleaning plants (with thermal dryers)	15. Coke oven batteries
2. Kraft pulp mills	16. Sulfur recovery plants
3. Portland cement plants	17. Carbon black plants (furnace process)
4. Primary zinc smelters	18. Primary lead smelters
5. Iron and steel mills	19. Fuel conversion plants
6. Primary aluminum ore reduction plants	20. Sintering plants
7. Primary copper smelters	21. Secondary metal production plants
8. Municipal incinerators capable of charging more than 250 tons of refuse per day	22. Chemical process plants
9. Hydrofluoric acid plants	23. Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels
10. Sulfuric acid plants	24. Taconite ore processing plants
11. Nitric acid plants	25. Glass fiber processing plants
12. Petroleum refineries	26. Charcoal production plants
13. Lime plants	27. Fossil fuel-fired steam electric plants of more than 250 million British thermal units (BTU) per hour heat input

28. Fossil-fuel boilers (or combination thereof) totaling more than 250 million BTU/ hour heat input