Tribal Air Issues:Designations, Tribal NSR and PQAO

Region 9 RTOC and Air Conference

Background

- Many tribes have increasingly sophisticated air quality programs
- Many tribes are now requesting designation that reflects tribal boundaries
- Particularly prior to the 1998 TAR, EPA had limited experience dealing directly with tribes on designations issues
- Past practice usually has been to base designations on CMSA or county boundaries
- Early EPA decisions were often made without tribal consultation

Issues for Tribes

- Tribes are sovereign entities
  - State and local agencies have no jurisdiction over tribal lands whether or not they are part of the same nonattainment area
- Many tribes receive pollution transported from upwind sources
- Some tribes in nonattainment areas seek attainment designation or lower classification
- Equity and economic development issues
  - Tribes in nonattainment areas generally face administrative barriers to obtaining offsets and have limited tribal sources from which to obtain emission offsets
  - Some tribes seek to develop air programs incrementally with EPA technical and monetary assistance
- Lack of funding for tribal air programs

Designations To Be Based On

- EPA's **9-Factor** analysis:
  - Air quality data
  - Emissions data
  - Level of control of emissions sources
  - Population density and degree or urbanization
  - Traffic and commuting patterns
  - Growth rates and patters
  - Meteorology
  - Geography/topography
  - Jurisdiction and boundaries

Example Cases

- Case 1: Tribal AQ data showing attainment and has NO contributing sources (surrounding area is nonattainment).
- Case 2a: Tribe has clean AQ data, contributing sources and has requested attainment, the rest of the county is NA.
- Case 2b: Tribe has no air quality data, contributing sources and wants an attainment designation but the rest of the county is NA.
- Case 3: Reservation is split between two counties: Scenario A) placing portions in attainment and others in NA
  Scenario B) designated into two different NA areas.
- Case 4: Tribe would like to have same designation as surrounding county(ies) but wants to be a separate NA area

Authorities/Policies/Orders

- 1984 EPA Indian Policy
  - Recognizes the unique status of tribes
- 1990 Amendments, Section 301(d)
  - Established a tribal role in implementing CAA
- 1998 Tribal Authority Rule
  - Allows EPA to treat tribes in a manner similar to states with the following exceptions:
    - Requirement to submit TIPs
    - Schedules/timelines
    - Allows tribal programs to have severable elements
- Nov. 6, 2000 EO 13175, "Consultation and Coordination with Indian Tribal Governments"
  - Established regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications

Regulatory Precedents

- Currently, 214 nonattainment areas include tribes: pollutant (# tribes)
  - 8-hour ozone (72), 1-hour ozone (52), PM-10 (51), PM-2.5 (18), CO (23), SO_2 (5)
- 1998 Ft. Hall Indian Reservation designation
  - State lands of Power-Bannock Counties (ID) PM-10 nonattainment area redesignated to attainment; Ft. Hall Indian Reservation retained nonattainment designation
- 2004 8-hour ozone deferred designation, correction
  - Moapa Paiute (near Las Vegas) and four tribes in SE San Diego County carved out of nonattainment areas (periphery, non-contributing)
  - Gila River Indian Community carved out of Phoenix nonattainment area (topography, straddling Maricopa/Pinal County border)
- 2006 Proposed Tribal NSR Rule
  - Acknowledged general lack of available emissions offsets for tribes
- 2008 8-hour ozone NAAQS (tribal recommendations)
  - Bishop-Paiute (Inyo County, CA) claims exceptional events for wildfires and stratospheric ozone intrusion (documentation)
  - Salt River (Maricopa County, AZ) violates standard, but claims transport from Phoenix
- 2009 24-hour PM-2.5 designations
  - Santa Rosa Cahuilla carved out of South Coast nonattainment area (straddles South Coast and Coachella Valley air basin border)

Overview of the Tribal New Source Review (NSR) Rule

U.S. Environmental Protection Agency
Office of Air Quality Planning and Standards (OAQPS)
Research Triangle Park, NC

Briefing Purpose

- Background on Tribal Authority Rule(TAR
- History of Tribal New Source Review(NSR) rule
- Provide a brief overview of New Source Review Program
- Provide an understanding of the impacts of the rule for Tribes
- Highlight key issues in the rule
- Present Implementation and Outreach Plan

The Tribal Authority Rule

- Prescribes how eligible tribes can be, “treated in a manner similar to a state”, (TAS)
- Provides for tribes to implement the CAA within the exterior boundaries of the reservations
- Allows eligible tribes to take on severable elements of the program
- EPA is responsible for implementing a program where tribes choose not too.
- TAR highlights regulatory gaps in Indian country.
  - SIP requirements/permits vacant
  - No NSR programs

Background – Tribal NSR rule

- Some Tribes indicated this rule is a priority because they are:
  - concerned about number of unregulated sources in Indian country.
  - wanting equal opportunity for economic development.
  - interested in building program capacity.
  - concerned with clarification of jurisdiction – to prevent states from issuing permits in Indian country

Benefits of the Tribal NSR rules for Tribes

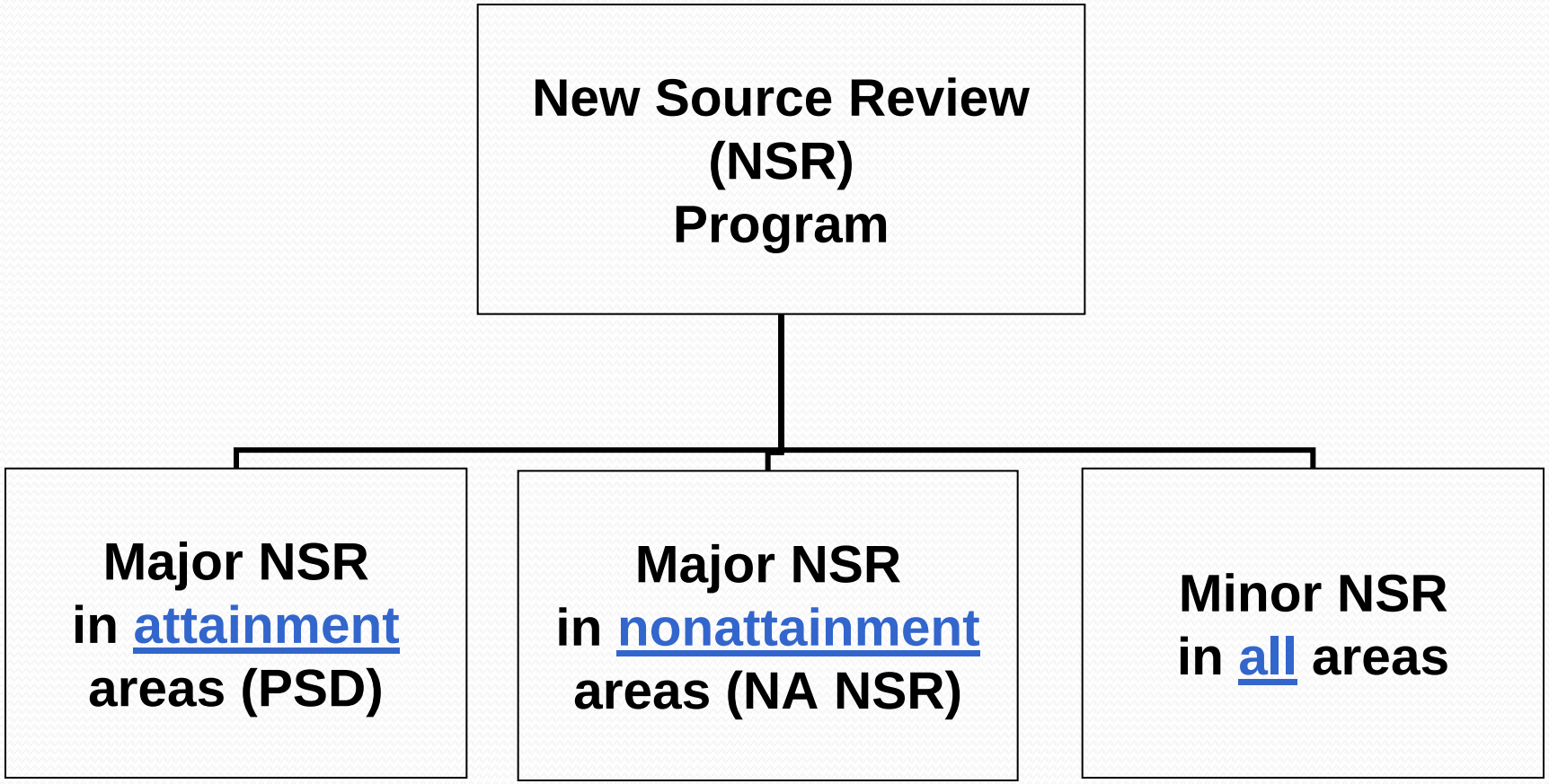
- Filling regulatory gap through:
  - Minor NSR
  - Nonattainment major NSR**
- Leveling the economic playing field
- Providing a cost-effective and timely permitting mechanism
- Protecting Tribal sovereignty from State incursion by clarifying jurisdiction
  - Ensuring resources are protected through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

**Prevention of Significant Deterioration(PSD) is currently being implemented by EPA.

Environmental benefits of the NSR rules

- A key tool for
  - enabling nonattainment areas to reach attainment
  - maintaining the National Ambient Air Quality Standards (NAAQS)
  - Protecting/Preserving clean air in national parks and wilderness areas, as well as, other attainment areas
  - Provides source specific requirements on new or modified sources
  - Allowing economic growth and improvements/protection of air quality

Components of the NSR program



The NSR Program requires

- New or modified sources to get permits prior to construction
- Sources to install state-of-the-art control technology
- Sources/agencies to make sure air quality impacts from the source will be acceptable

PSD Permit Requirements

- Main requirements:
  - Install **Best Available Control Technology (BACT)**
  - Perform **air quality analysis** to assess impacts on air quality
  - Perform **analysis**
    - **Assess impacts on** national parks & wilderness areas
    - All other air quality analysis
  - Allow for opportunities for **public involvement**

NonAttainment NSR Permit Requirements

- Main requirements:
  - Install **Lowest Achievable Emission Rate (LAER)** technologies
  - Obtain **emission offsets**
  - Perform **alternative sites analysis**
  - Show **statewide facility compliance** w/air regulations
  - Allow for opportunities for **public involvement**

Minor NSR Permit Requirements

- CAA is silent on specific requirements
  - Minimal requirements found on 40CFR 51.160-51.164
- New sources and modifications cannot
  - violate NAAQS or FIP/SIP/TIP control strategies
  - interfere with attainment or maintenance of the NAAQS
- State program requirements vary greatly

What are the key issues in the final rule?

Minor NSR Program

- Applicability
  - Minor NSR Thresholds
  - Emissions Test for Sources Undergoing Modifications
- Permit Application
  - Case-by-Case Control Technology Review
- Implementation
  - Implementing the Rules in Phases
  - Public Notice Requirements

Major NA NSR Program

- Applicability
  - Establishes rules identical to the existing rules for sources locating in nonattainment areas where the State does not have an EPA-approved nonattainment major NSR program (Appendix S)
- Permit Application
  - Offset Waivers
  - Compliance Certification Area

Schedule for the Final Rule

- Proposed Rule 8/9/06
- FR Publication (71 FR 48696) 8/21/06
- Comment Period Closed 3/20/07
  - 57 commenters (26 tribes, 15 industries, 7 states, 8 citizens, 1 enviro)
- Final Option Selection 1/19/10
- Final Agency Review (FAR) 6/15/10
- Final Signature 1/30/11

Consultation & Outreach History

1990's draft rule was developed by R9 & sent to HQ
2002 Consultation letters sent to tribal leaders • Tribes Agreed to 4 onsite meetings: Menominee Tribe, WI; Mohegan Tribe, CT; Chehalis Tribe, WA; and NAU/ITEP, AZ
2006 Proposal Presented
Training: • 4 webinar trainings for tribes, EPA regional offices, air program managers and tribal organizations (Pechanga/CA, Salt River/AZ, R5 and R10
Comment period was reopened & extended twice at Tribes request
Tribal NSR Workgroup organized to work on implementation issues

Outreach & Implementation

Outreach Focuses on Tribal input and needs

Tribal NSR Workgroup calls are held monthly (for Tribes)
- review draft docs/plans to ensure information is useful and will address the needs of tribes and regions

EPA Tribal NSR Workgroup calls are held monthly (EPA regions)
- Plan for implementation and develop model documents

Presentations @ Tribal meetings or on conference calls
- NTAA, RTOC meetings, National Tribal Forum, as requested

Tribal NSR Tools currently being developed
- Website, database, model documents, and outreach materials.

NSR Guidance Document for implementation of the NSR
- For Tribes and Regional offices
- Will have all the "how to's" we can incorporate

<u>Once Rule is final in January</u>
- 2011 Regional Trainings: West coast, Midwest, and possible east coast.
- Webinars
- Release final guidance and resources at trainings
- Public notices, press releases, etc.
- Offer Consultation with Tribes or as requested

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National Performance Evaluation Program (NPAP) and the PM2.5 Performance Evaluation Program (PEP)

Options for Tribes to Meet These QA Requirements

Performance Evaluations Why!?

Clean Air Act- Section 103

"(2) Establishment of a national network to monitor, collect, an compile data with quantification of uncertainty in the status and trends of air emissions, deposition, air quality, surface water quality, forest condition, and visibility impairment and to ensure the comparability of air quality data collected in different States and obtained from different nations."

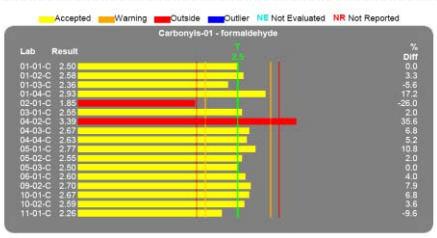
Performance Evaluation

Performance evaluations (PEs) are a type of audit in which the quantitative data generated in a measurement system are obtained independently and compared with routinely obtained data to evaluate the proficiency of an analyst, or a laboratory

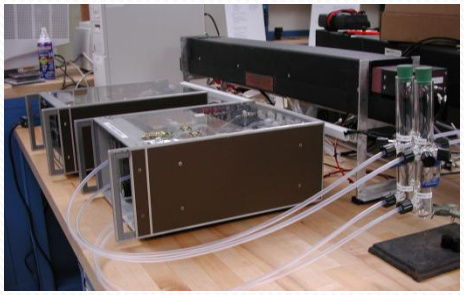
NPAP-TTP

PEP

Protocol Gas



NATTS PT &
ORIA Round Robins



SRP

PAMS Cylinders

CFR Language on PEP/NPAP Responsibilities

- Promulgated in October 17 Federal Register
- Part of 40 CFR Part 58 Appendix A QA Requirements
  - Any data used for comparison to the NAAQS must meet these regs.
- PEP and NPAP are SLT Responsibility
  - PEP always the case
  - NPAP always required "participation"
  - Language strengthened
- Audits must be adequate & independent
  - Some of this defined in guidance, some in the regulation
- Flexible implementation
  - SLT
  - Federal - with STAG funds
    - PEP has always been implemented with STAG
    - NPAP was moved to STAG

Adequate NPAP/PEP (abridged version)

NPAP

- Performing audits at a risk-targeted 20% of monitoring sites/instruments
- Data submission to AQS
- TTP delivery system
- Follow NPAP field/lab SOP critical performance criteria
- Use of audit gasses that are NIST certified and validated at least once a year
- Validation/certification with the EPA NPAP program
- Incorporated in QAPP

PEP

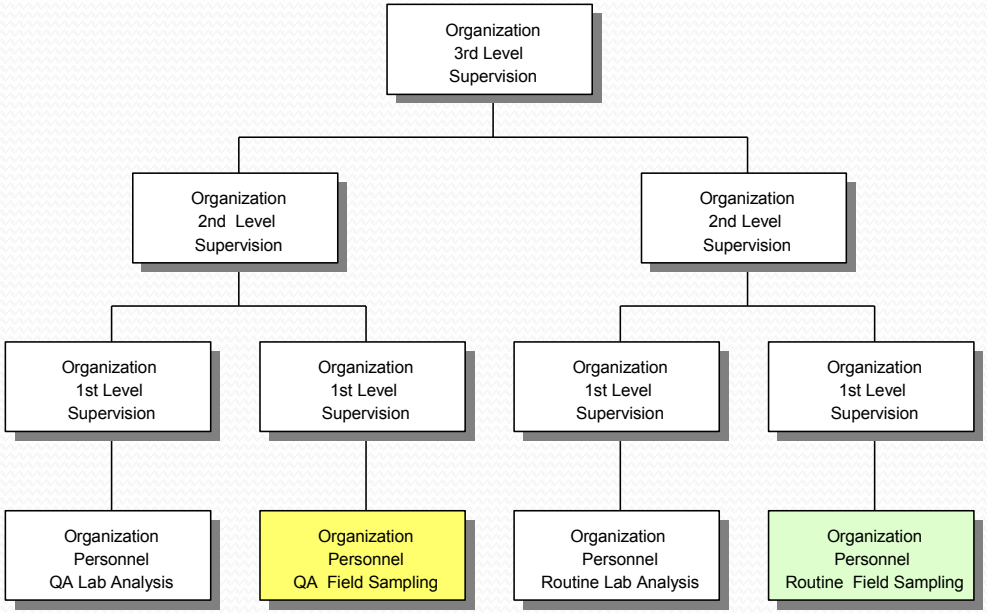
- Valid audits of 5 or 8 per PQAO per year
- Data submission to AQS
- Use of independent personnel, sampling devices (FRMs) weighing laboratory and standards
- Follow PEP field/lab SOPs critical performance criteria
- Follow PEP validation criteria
- Validation/certification with the EPA PEP program
- Incorporated into QAPP

Independence PEP/NPAP

- Not part of the organization directly performing and accountable for the work being assessed.
- A management structure that allow for the separation of its routine sampling personnel from its auditing personnel by two levels of management
- Submission of a plan demonstrating independence to the EPA Regional Office.

For PEP, labs must also be independent.

Region 4 contractor Operated PEP Lab is available (STAG Funds required) as well as LV and others.



So… the questions for the Tribes

1) Can we implement the program ourselves and what's considered "self implementation"?
2) If we opt for federal implementation can we afford it ?
3) Are there some options ?

1) Can We Implement the Programs?

- Sure- you need to meet adequacy and independence
- What might be considered "self implementation"
  - Tribal monitoring organization performing the audits themselves (meeting all independent and adequacy requirements).
  - One tribal monitoring organization auditing another.
  - Cooperation among States and Tribes for auditing.
  - Tribes working together and hiring internally or externally for audits.
  - Other mechanisms like working with various organizations (TAMS, others) for the implementation of audits.

2) Can We Afford Federal Implementation?

- PEP- $2000/audit
  - 5 audits for PQAO with ≤ 5 sites = 10K/year
  - 8 audits for PQAO with >5 sites = 16K/year
- NPAP- $2200/audit
  - 20% of sites in PQAO audited
  - Would need 8 sites for 2 audits a year.
- The cost covers everything

3) Are There Some Options?

- Consolidating PQAOs
- Tribes consolidating funds to purchase and share equipment and auditing services
- Loans of capital equipment from TAMS or Regions
- Utilization of TAMS auditor(s) and equipment

Consolidation of Primary Quality Assurance Organizations

Common factors of PQAOs

- Operation by a common team of field operators according to a common set of procedures;
- Use of a common QAPP or standard operating procedures;
- Common calibration facilities and standards;
- Oversight by a common quality assurance organization; and
- Support by a common management, laboratory or headquarters.

Tribe PQAO	Number of Gaseous Sites	NPAP Audits Required	NPAP Cost ($)	Number of PM2.5 Sites	Number of Collocation Required	Number of PEP Required	PEP Cost ($)
A	2	1	2200	3	1	5	10000
B	3	1	2200	2	1	5	10000
C	1	1	2200	1	1	5	10000
D	5	1	2200	6	1	8	16000
Totals Separate	**11**	**4**	**8800**	**12**	**4**	**23**	**46000**
PQAO A-D	**11**	**2**	**4400**	**12**	**2**	**8**	**16000**

Bottom line- Savings of $34,400

Possible PQAO Consolidations

- Consolidation of Tribes within a State
- Consolidation of Tribes across States within an EPA Region
- Consolidation of Tribes with State PQAO
- Consolidation of Tribes across EPA Regions

Tribes consolidating funds to purchase and share equipment and auditing services

- OAQPS can provide lists of equipment and some cost information
- Development of auditors within tribes or contracting this service.
- OAQPS would provide training/certification
- OAQPS would require audit comparison of TTP lab at minimum 1/year.
  - This cost would be incurred by Tribe
  - Could be accomplished at site to be audited

TAMS NPAP/PEP Loan/Implementation Options

- TAMS will get a trailer from Region 7
- Majority of equipment being installed now
- Misc $$ may be needed to complete
- TAMS Tech Specialist will be trained to audit NPAP/PEP
- Tribes could be trained and certified to operate equipment
- Tribes could borrow equipment for audits or utilize Tech . Specialist
- ORIA LV lab could be PEP Lab
- Hope to have TTP available by June-July 2007

OK- How do we get started?
The PEP/NPAP Decision Form

- Ensures that QA documentation is in place
- Tribes can indicate:
  - Their plans to consolidate PQAOs
  - Their decision on implementing PEP/NPAP
- Regions would collect this information annually
  - Maybe through the grant process?

Concerns About Self-Implementation

- Added burden on SLTs
- Difficulty maintaining data comparability
  - Different standards
  - Different equipment
  - Less control over consistency in SOPs and QC requirements
- Data submission issues
- Independent labs for PEP
- Independence and/or perception of independence reduced

These can be overcome