

ENGAGED! WE DIDN'T KNOW WE WERE DATING



STATE AIR REGULATORS' PERSPECTIVE ON SMOKE MANAGEMENT PLANNING: YESTERDAY AND TODAY

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The Story of Kisatchie National Forest and LDEQ



- **FINDING OUT THERE ARE OTHER PEOPLE “OUT THERE” GETTING READY TO COMPLICATE YOUR LIFE**

DATING: CLEAN AIR ACT HISTORY



- **The Air Pollution Control Act of 1955**
 - First federal air pollution legislation
 - Funded research for scope and sources of air pollution
- **Clean Air Act of 1963**
 - Authorized the development of a national program to address air pollution related environmental problems
 - Authorized research into techniques to minimize air pollution
- **Air Quality Act of 1967**
 - Authorized enforcement procedures for air pollution problems involving interstate transport of pollutants
 - Authorized expanded research activities

DATING: CLEAN AIR ACT HISTORY (cont'd)



- **Clean Air Act 1970**
 - Authorized the establishment of National Ambient Air Quality Standards
 - Established requirements for State Implementation Plans to achieve the National Ambient Air Quality Standards
 - Authorized the establishment of New Source Performance Standards for new and modified stationary sources
 - Authorized the establishment of National Emission Standards for Hazardous Air Pollutants
 - Increased enforcement authority
 - Authorized requirements for control of motor vehicle emissions
- **1977 Amendments to the Clean Air Act of 1970**
 - Authorized provisions related to the Prevention of Significant Deterioration
 - Authorized provisions relating to areas which are non-attainment with respect to the National Ambient Air Quality Standards

ENGAGED: 1990 Clean Air Act Amendments



- **1990 Amendments to the Clean Air Act of 1970**
 - Authorized programs for Acid Deposition Control
 - Authorized a program to control 189 toxic pollutants, including those previously regulated by the National Emission Standards for Hazardous Air Pollutants
 - Established permit program requirements
 - Expanded and modified provisions concerning the attainment of National Ambient Air Quality Standards
 - Expanded and modified enforcement authority





Not Married But Your “Mother-in-Law” Moved In: Regional Haze Rule

- Smoke management programs establish a basic framework of procedures and requirements when managers are considering resource benefits. These programs are typically developed by States and Tribes with cooperation and participation by wildland owners and managers. The purposes of smoke management programs are to **mitigate the nuisance** (such as impacts on air quality below the level of ambient standards) and **public safety hazards** (such as visibility on roads and airports) posed by smoke intrusions into populated areas; to prevent significant deterioration of air quality and NAAQS violations; and to address visibility impacts in Class I areas.

MONITORING IS EVERYTHING!



- FINDING OUT THAT THE “OTHER PEOPLE” OUT THERE JUST MADE WORK FOR YOU



INTERIM AIR QUALITY POLICY ON WILDLAND AND PRESCRIBED FIRES



- Provides clear guidelines for establishing the need for and content of smoke management programs and assigns accountability to State and Tribal air quality managers for developing and adopting regulations for a program. Measured PM₁₀ NAAQS exceedances attributable to fires, including some prescribed fires and wildland fires managed for resource benefits, can be excluded from air quality data sets used to determine attainment status for a State.

Escape!

OTHER DOCUMENTS STATES FOLLOW



- The 1986 Exceptional Events Policy.
- The 1996 PM-10 Natural Events Policy.
- The 1998 ozone Mexican Fire Policy.
- SAFE-TEA revised section 319 to require a proposed rule on exceptional events by March 1, 2006, and to finalize the rule within 1 year of proposal.

DEFINITION OF EXCEPTIONAL EVENTS CHANGES



- President signed on August 10, 2005 the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)
- Amends Clean Air Act Section 319 to define exceptional events and require EPA to issue regulations

STATUTORY DEFINITION OF EXCEPTIONAL EVENT



- **Section 319 defines exceptional event as an**
- **event that:**
 - Affects air quality
 - Is not reasonably controllable or preventable
 - Is an event that is caused by human activity that is unlikely to recur at a particular location, or is a natural event; and
 - Is determined by the Administrator through the process established in the rule to be an exceptional event.

NO EXCUSE LIST FOR EXCEPTIONAL EVENT



- Stagnation of air masses or meteorological inversions
- Meteorological event involving high temperatures or lack of precipitation
- Air pollution relating to source noncompliance

MEET THE PARENTS: WHAT ARE EXPECTATIONS FROM SECTION 319?



- States are **very** concerned as previously flagged data under old policies will not be allowed under the new definition of exceptional event
- States may have to take harder stand on emissions from fires

YOUR FIRST FIGHT: It's Your Fault; No, It's Your Fault



- Does air pollution cause forest management problems?
- Does burning cause air quality problems?



AIR POLLUTION IMPACTS TO FORESTS



- The increase in forest susceptibility to fires caused by air pollution is also of interest. Elevated background levels of O₃ and N deposition increase leaf turnover rates, as well as N and lignin content in needles. This reduces litter decomposition and increases fuel buildup. Both O₃ exposure and elevated available N may reduce root/shoot mass and plant control of water loss, thus increasing tree susceptibility to drought stress and fire. Better understanding of mechanisms of air pollution effects on wild-land fires in forests and other terrestrial ecosystems is needed.

SMOKE AND FIRE IMPACTS TO AIR QUALITY



- Fires, both wild and prescribed, can significantly contribute to ambient air pollution. Consequently, air quality concerns and regulations are major constraints to the implementation of prescribed fire strategies in many instances. Modeling is an important tool for characterizing the transport of polluted air masses resulting from forest fires, and for predicting forest fire effects on air quality. Comparisons between air pollutant concentrations estimated with and without forest fires may allow us to assess forest fire contribution to ambient air pollution.

COME ON BABY, LIGHT MY FIRE (song lyrics)



ENTER THE BROTHER-IN-LAW: CLIMATE CHANGE



- The impacts of air pollution and climate change on forest ecosystems have been traditionally studied and reported on separately. Many air pollutants and greenhouse gases (O₃ is both) have common sources, contribute to global warming through increased radiative forcing, interact in the atmosphere, and jointly affect ecosystems. Their combined effects may significantly differ from a sum of separate effects. Some pollutants that are now of emerging concern may be of significant importance for forest health. These include, in particular, secondary organic aerosols, especially aerosol deposition rates to forests and mechanisms for increasing leaf wetness.

WILL STATES BE REQUIRED TO MANAGE CLIMATE CHANGE?



- **Can't do it without additional funding**
- **More NAAQS Non-Attainment Areas in the Country
reducing availability of existing staff**

THE GOLDEN RULE



HE WHO HAS THE GOLD, RULES!



- Regardless of what the national or state regulations say, state legislators control state budgets and Congressmen control the federal budgets
- Cases where rules were enacted as a knee-jerk reaction to a single fire/smoke incident
- Conversations, MOUs, Agreements between environmental regulatory staff and Federal Land Managers go by the wayside

PRE-NUPTIAL AGREEMENT: SMOKE MANAGEMENT PLANS



- Actions to minimize emissions from fire - any burning techniques that reduce the actual amount of emissions produced.
- Evaluation of smoke dispersion – Using meteorological conditions to assess the ability to minimize smoke impacts.
- Alternatives to fire – any method of removing or reducing fuels by mechanical, biological or chemical treatments.
- Public notification of burning – Any method that communicates burn information to the burn community, to air regulators and to the general public. Also includes public education and media relations.

PRE-NUPTUAL (cont'd)



- Air quality monitoring – Observations and/or equipment that enable an assessment of air quality impacts of smoke from fires.
- Surveillance and enforcement – an oversight mechanism that assures adherence to smoke management efforts as defined by the regional haze implementation plan.
- Program evaluation – A mechanism to assess the adequacy of the enhanced smoke management program in meeting the requirements of the Rule.
- Burn authorization – The management approach used to facilitate burn decision-making
- Regional coordination – Communication and information sharing across state/tribe jurisdictional lines.

WEDDING: STATE IMPLEMENTATION PLAN (SIP)



- Has the effect of law in that it can be enforced by both the state and the U.S. EPA
- There's NO divorce without a lengthy legal battle
- Only the state can make a change to their SIP

TIPS FOR LIVING HAPPILY EVER AFTER



- Need commitment from both sides that this is a priority
- Have dedicated people to work on the development
- Have regularly schedule meetings to discuss updates, issues, etc.
- Bring in Upper Management to make the decision when staff cannot agree

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