
Near-Roadway Exposure: Policy Implications

Kathryn Sargeant
U.S. EPA Office of Transportation and Air Quality
HEI Annual Meeting
April 19, 2005

Overview

- Transportation planning
 - Federal requirements (NEPA, conformity)
 - State/local choices
 - Land use planning
 - Facility siting, urban design
 - Mobile source controls
 - Environmental justice
 - PM national ambient air quality standards
 - Community-based toxics programs
-

Transportation Planning Issues

- What transportation facilities are built?
 - Where are they built?
 - What are the various alternatives and options?
 - What are the health and environmental impacts, and how are they communicated?
 - What are the federal requirements for environmental analysis?
 - What are the community's and public's concerns?
 - What are the options for mitigating impacts?
-

Transportation Planning: Federal Environmental Requirements

- National Environmental Policy Act (NEPA)
 - Assess env. impacts of major federal projects
 - Env. impact statement (EIS) or env. assessment (EA)
 - Look at reasonable alternatives, analyze impacts
 - Make analysis available to public, decisionmakers
 - Foundation for informed decisionmaking
 - Avoid or minimize environmental impacts
 - Doesn't require least damaging alternative to be selected

Near-Roadway Issues and NEPA

- FHWA's environmental impact statements have not included near-roadway toxics or PM
 - Focus has been on regional air quality issues and CO near roadways
 - Sierra Club sued on this for US-95 in Las Vegas
 - Federal district court ruled for FHWA
 - 9th Circuit stayed construction pending appeal
- DOT developing policy
 - Whether and how near-roadway issues considered
- Analyses being negotiated case by case for now

Transportation Planning: Federal Environmental Requirements

- **Transportation Conformity**
 - Clean Air Act requirement applying to FHWA/FTA and metropolitan planning organizations
 - No federal transportation money for a project...
 - ...unless proven in advance that it will not cause or worsen violations of the NAAQS
 - What analysis should be required for localized PM-2.5 impacts of transportation projects?
 - EPA issued a proposal in Dec. 2004
 - Final rule this year

Example Mitigation Options

- Alternatives selection
 - Mode
 - Alignment
- Construction
 - Cleaner equipment (retrofits or later model year)
 - Idling, work limits
- Design and operation
 - Particularly for terminals, garages, etc.
 - Idling limits
 - Route trucks, idling vehicles away from population

Land Use Planning

- State/local planning
- Siting schools, day care, nursing homes, etc.
 - **American Academy of Pediatrics (2004)**
 - ***“Siting of school and child care facilities should include consideration of proximity to roads with heavy traffic and other sources of air pollution. New schools should be located to avoid ‘hot spots’ of localized pollution.”***
- Urban form

Mobile Source Control Programs

- Implications for:
 - Who is exposed to unhealthy air?
 - What controls are appropriate?
 - Who benefits from mobile source control programs?
- Current regulatory context
 - Mobile source air toxics
- Voluntary programs
 - Diesel retrofits
 - Anti-idling
 - Transit, other alternatives to single-occupant vehicles

Environmental Justice

- Presidential Executive Order 12898 (1994)
 - **Fair Treatment:** No group should bear disproportionate burden
 - **Meaningful Involvement:** Full opportunity to participate in planning and decision making
 - EJ part of all federal agencies' mission
- EPA goal: everyone enjoys same degree of protection from environmental and health hazards
- Populations living near major roads have lower income and education
 - According to American Housing Survey (2001)

PM NAAQS Implementation

- Temporal and spatial variability
- Monitor siting
- State implementation plans
- Conformity

Air Toxics Programs

- Mobile source air toxics rule
- Community-based toxics programs
 - Communities are seeking actions they can take to reduce risk at the local level
 - Diesel retrofits, anti-idling already popular
 - Near-roadway issues could be another focus
 - Transportation planning
 - Land use planning

Summary

- Wide-ranging policy implications
 - Multiple agencies and levels of government
 - Federal, state, local
 - Various disciplines
 - Environmental analysis, air quality planning
 - Transportation
 - Land use
 - Various pollutants
 - Both criteria (NAAQS) and toxics
 - Various statutes and policies
-