

National Ambient Air Quality Standards (NAAQS): Review Process

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Clean Air Act – Section 108

Directs Administrator to:

- Identify and list “air pollutants” that “in his judgment,
 - may reasonably be anticipated to endanger public health and welfare” and
 - whose “presence... in the ambient air results from numerous or diverse mobile or stationary sources”
- Issue air quality criteria to “accurately reflect the latest scientific knowledge useful in indicating the kind and extent of identifiable effects on public health or welfare which may be expected from the presence of [a] pollutant in ambient air...”

Clean Air Act – Section 109

Directs the Administrator to:

- Propose and promulgate standards for pollutants for which air quality criteria have been issued under Section 108
 - Primary (health-based)
 - Secondary (welfare-based)
- Periodically review (5 year intervals) and, if appropriate, revise NAAQS
- Establish independent scientific review committee to:
 - Review air quality criteria
 - Recommend to the Administrator any new standards and revision of existing criteria and standards as may be appropriate
 - Since the early 1980's, this independent review function has been performed by the Clean Air Scientific Advisory Committee (CASAC)

Statutory Requirements for NAAQS

- Primary (health-based) Standards . . . in the “judgment of the Administrator” are “requisite” to protect public health with an “adequate margin of safety”
 - “Requisite” – sufficient but not more than necessary
 - “Adequate margin of safety” – intended to address uncertainties associated with inconclusive evidence, and to provide a reasonable degree of protection against hazards that research has not yet identified
- ★ In addressing the margin of safety requirement, EPA has consistently based its judgments on the science, taking into consideration:
 - Nature of health effects
 - Size of populations at risk and degree of exposure
 - Degree of scientific uncertainty that such effects will occur
- ★ Public health protection intended for:
 - Adverse health effects, not all identifiable effects
 - At-risk population groups

Statutory Requirements (cont.)

- Secondary (welfare-based) standards . . . in the “judgment of the Administrator” are “requisite to protect the public welfare from any known or anticipated adverse effects”
 - Welfare effects include . . . “effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility and climate . . .”
- In Setting Primary and Secondary Standards:
 - EPA is required to engage in “reasoned decision-making” to translate scientific uncertainty into standards
 - In so doing, EPA may not consider cost in setting standards . . . rather, cost is considered in developing control strategies to meet the standards

NAAQS Review Process: Key Steps

■ Planning:

- Receive early input from experts, including CASAC
- Focus efforts on key policy-relevant issues and science that informs our understanding of these issues
- Create one integrated plan early in process

■ Integrated Science Assessment

- Replace voluminous Criteria Document with more concise synthesis of most policy-relevant science accompanied by extensive Annexes
- Develop continuous survey/evaluation of new science; create state-of-the-art electronic data base to catalog new studies

NAAQS Review Process: Key Steps (cont.)

■ Risk/Exposure Assessment

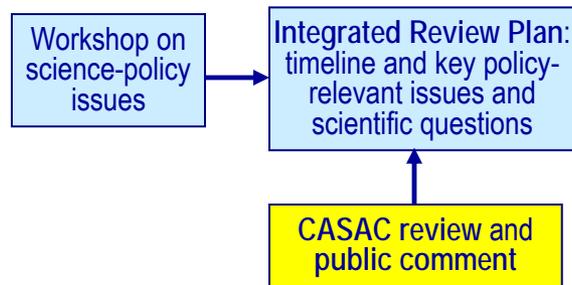
- Focus on human health or welfare-related impacts
 - Recent air quality
 - Air quality simulated to just meet current standards
 - Air quality simulated to just meet alternative standards
- Create more concise document in parallel with development of ISA
- Emphasize key results, observations and uncertainties

■ Policy Assessment/Rulemaking

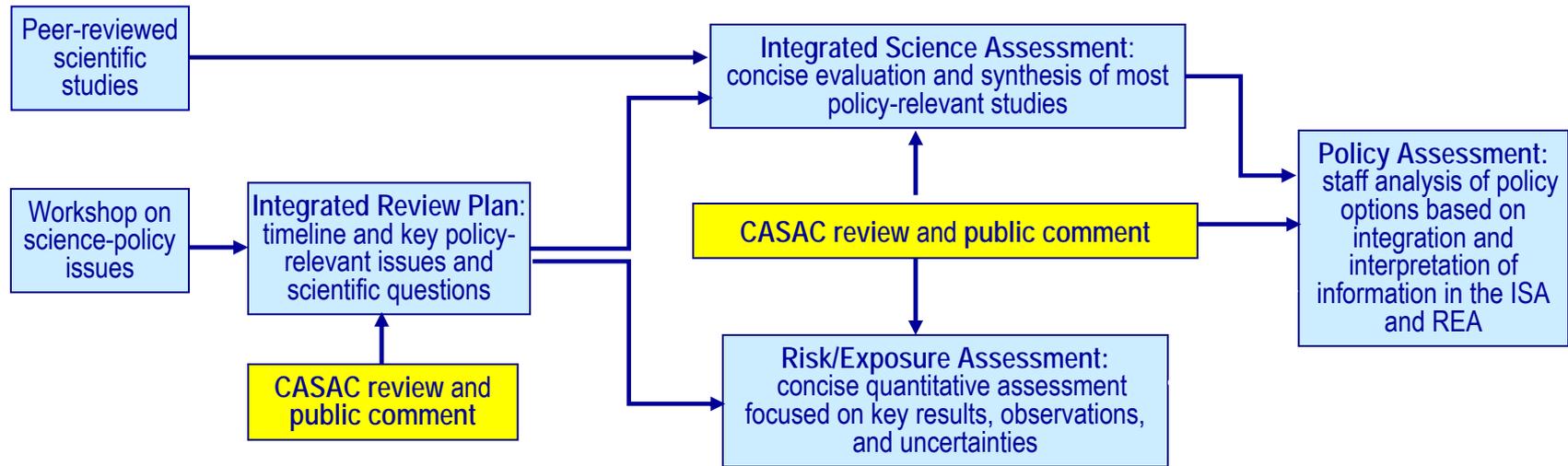
- Present a transparent staff analysis of policy options for senior Agency management to consider prior to rulemaking in a Policy Assessment
- Develop proposed and final rules

- CASAC review and public comments considered throughout NAAQS review process (see figure)

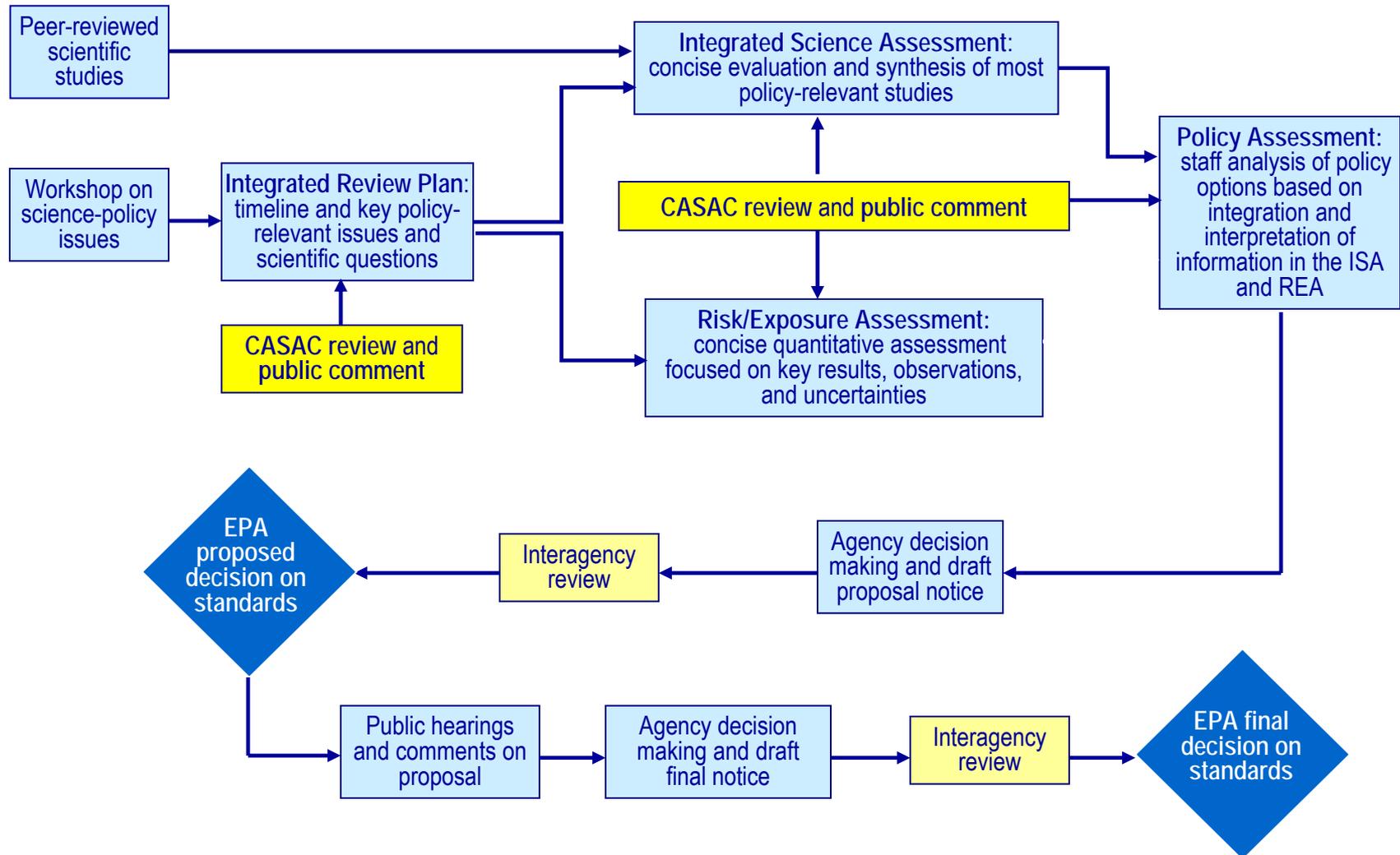
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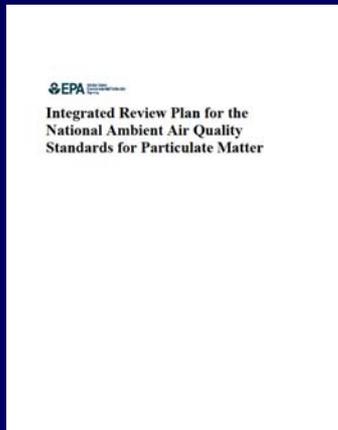
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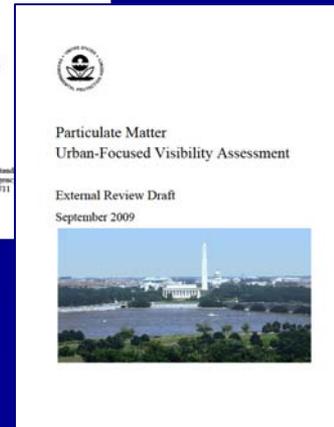
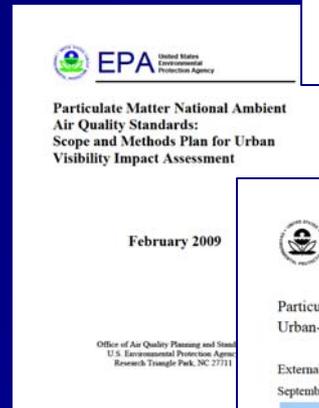
Example: PM NAAQS Review Documents



Integrated Review Plan
Draft – Oct 2007
Final – Mar 2008

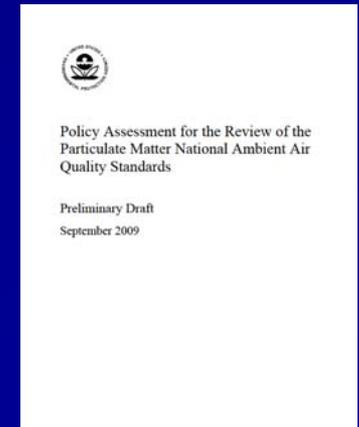


Integrated Science Assessment
1st Draft - Dec 2008
2nd Draft – July 2009
Final – Dec 2009



Risk/Exposure Assessment
Planning Documents - Feb 2009

Draft – Sept 2009
Final – Dec 2009



Policy Assessment
Preliminary Draft - Sept 2009
Draft/Final – 2010

For More Information

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