

New Source Review Reform: A Menu of Options

Prepared by STAPPA and ALAPCO

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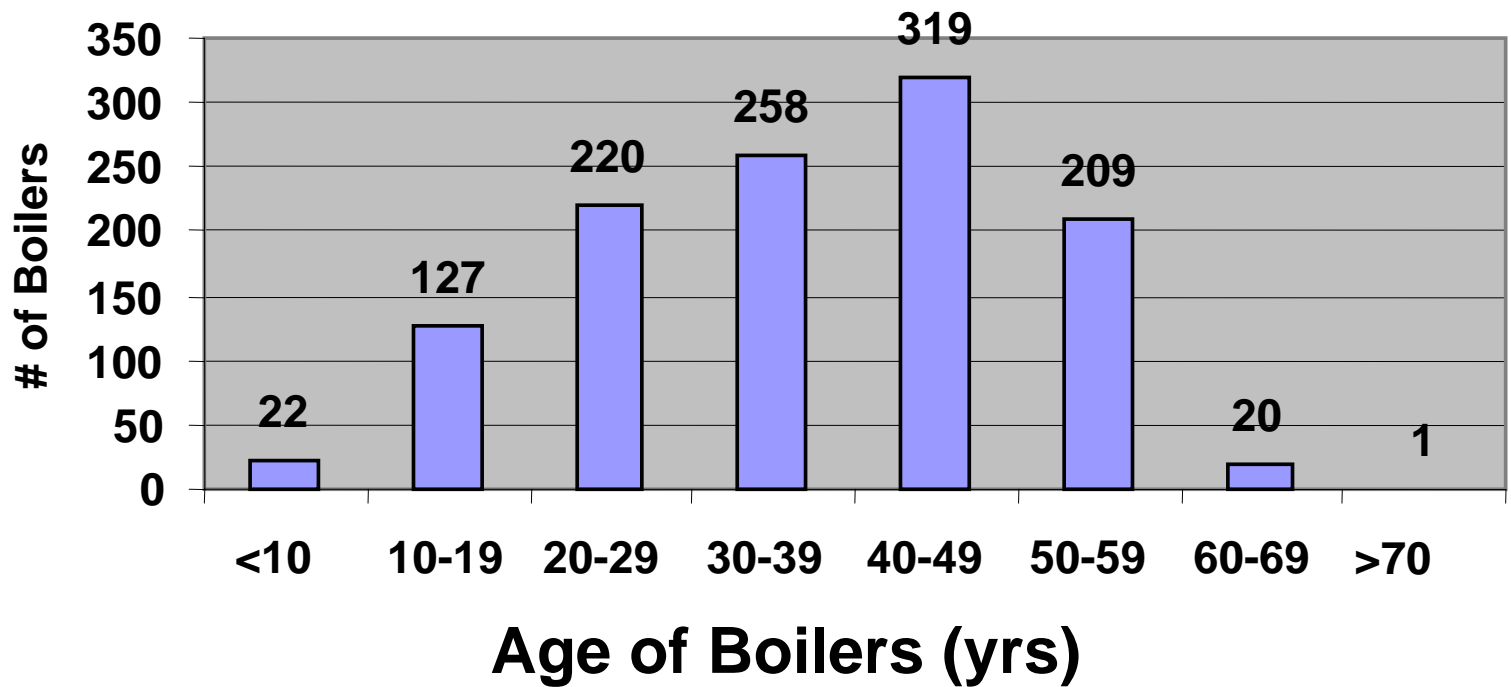
What I Will Cover

- History of EPA's NSR Reform Efforts
- Why We Developed Our Menu
- Our Process
- Comparison of EPA's Final Rules and the S/A "Menu of Options"
- Next Steps

What's the Problem?

- NSR=installation of modern pollution controls and protection of local impacts
- At issue is what triggers NSR under the CAA
- Sources escape NSR if modification is:
 - "Routine"
 - Results in less than a "significant net emissions increase"

Coal-Fired Boilers Larger than 25MW (2004)



Breakdown by Boiler Age (as of 2004)

<u>Age (yrs)</u>	<u>Number of Boilers</u>	<u>Cumulative number</u>	<u>Cumulative %</u>
>70	1	1	----
60-69	20	21	1.8
50-59	209	230	19.6
40-49	319	549	46.7
30-39	258	807	68.6
20-29	220	1027	87.3
10-19	127	1154	98.1
<10	22	1176	100
Total	1176		

History of EPA's NSR Reform Efforts

- 1993 – EPA convened stakeholder meetings to simplify NSR program
- 1996 – EPA proposed major rule revisions
- 1998 – EPA identified additional revisions
- 2001 – EPA abruptly halted stakeholder process
- 2002 – EPA adopted final NSR rules
- 2003 – EPA adopted equipment replacement rule (subsequently stayed)

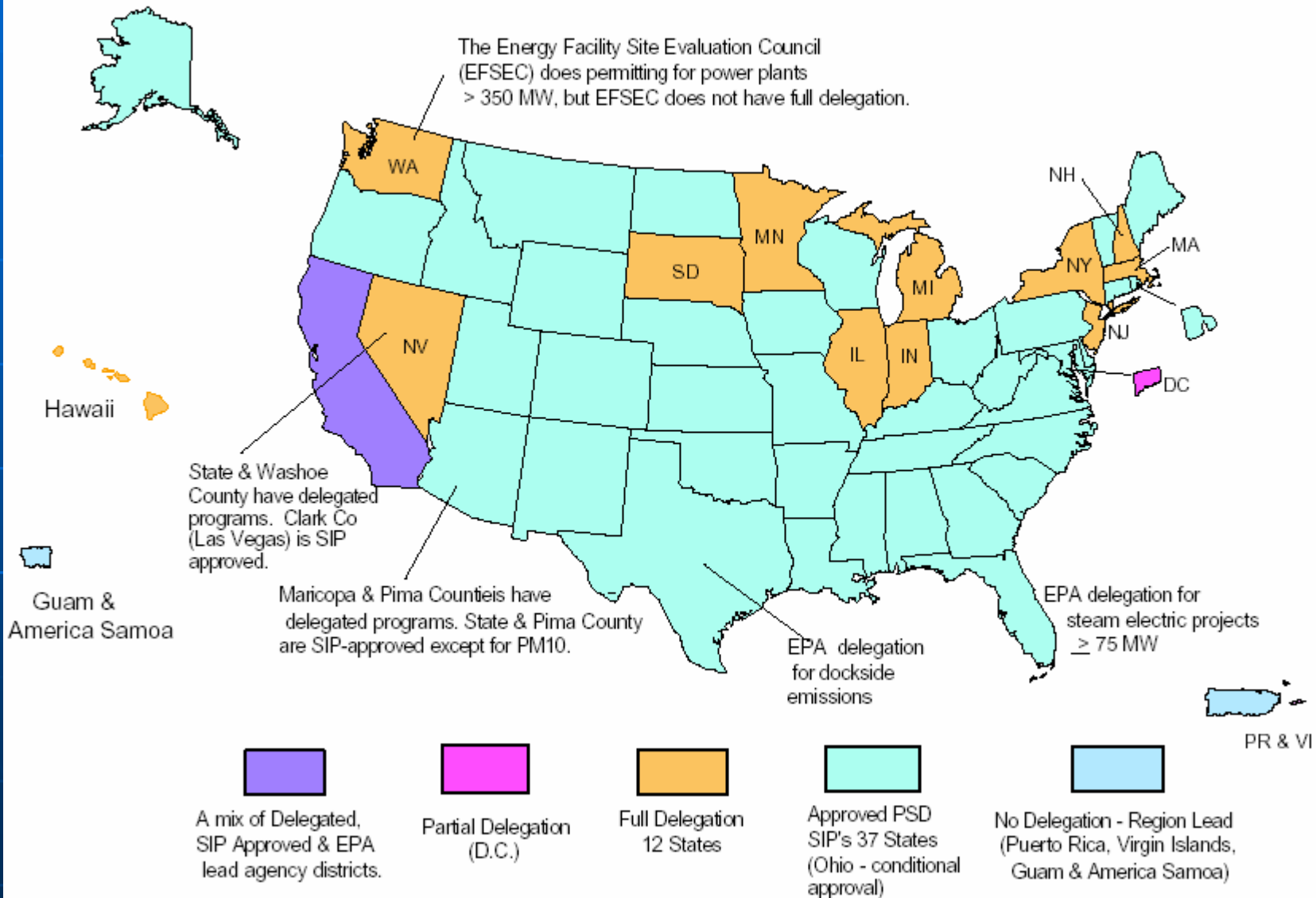
Effect on States and Localities

- 1996 proposal made NSR revisions optional for states
- EPA's final rule makes changes mandatory for states
- To deviate from EPA rules, states required to make demonstration, but there's no federal guidance
- For delegated programs, rules took effect on 3/2003
- For others, SIPs due 1/2006

PSD Program Status

June 2002

The Energy Facility Site Evaluation Council (EFSEC) does permitting for power plants > 350 MW, but EFSEC does not have full delegation.



Reaction of STAPPA/ALAPCO to EPA's NSR Rules

- Transmitted letter to Administrator Whitman (1/02) warning NSR rule would degrade air quality and public health and jeopardize meaningful reform
- Testified at each of EPA public hearings (3/03) indicating proposal would "eviscerate" NSR program
- Members requested that associations publish a "Menu of Options" presenting alternatives to EPA's rule

State/Local Agencies' Analysis of EPA's Rules

Provision	Increased Emissions	Decreased Emissions	No Change	Unable to Judge	Total
Clean Unit	20	6	12	6	44
PALs	24	10	4	6	44
PCPs	14	10	12	8	44
Baseline	29	2	5	8	44
Future Actuals	29	1	5	9	44
Overall Effect	27	5	3	9	44

Source: GAO, February 2004

Development of STAPPA/ALAPCO NSR Menu of Options

- Hosted weekly calls starting in January, 2003
- Conducted national workshop of state/local agencies in May, 2003
- Formed technical workgroup of state/local officials
- Released draft report (PSD) in October, 2003
- Conducted stakeholder process in December, 2003
- Responded to suggestions, added nonattainment section in July, 2004

EPA's Final NSR Rules

- Baseline actual emissions
- “Actual to Future Actual” test for emission increases
- Clean Unit exemption
- Plantwide Applicability Limits (PALs)
- Pollution Control Project exclusion (PCPs)
- Equipment Replacement Exclusion

Baseline Actual Emissions: EPA's Rule

- Source may select any consecutive two year period in ten years before the change—allows “cherry-picking”
- Includes fugitive emissions and emissions from startup, shutdown and malfunctions
- Extremely complex; difficult to enforce, different baselines for different pollutants and different equipment

Potential Emissions Increases From Ten-Year Look Back

- Could allow emissions from 1,273 major sources to increase by about 1.4 million tons in 12 states
 - SO₂ – could increase 330,000 tons per year
 - NO_x – could increase 335,000 tons per year
 - VOCs – could increase 173,000 tons per year
 - CO – could increase 448,000 tons per year
 - PM – could increase 49,000 tons per year

State-by-State Breakdown of Excess Emissions Due to Ten-Year Look Back

No.	State	Major Sources	Particulate Matter (tpy)	Nitrogen Oxides (tpy)	Sulfur Dioxide (tpy)	VOCs (tpy)	Carbon Monoxide (tpy)
1	Connecticut	11	Not available	2,068	3,219	54	512
2	Delaware	16	460	13,801	13,847	3,426	3,410
3	Florida	195	10,032	19,376	26,077	13,175	44,430
4	Illinois	158	6,057	39,185	78,882	39,109	69,502
5	Indiana	144	8,828	37,161	45,109	16,445	118,762
6	Louisiana	263	694	111,318	48,932	57,405	140,256
7	Maine	24	2,932	5,776	14,755	1,298	5,472
8	New Jersey	47	694	7,703	4,323	6,359	3,964
9	New York	86	2,883	20,388	13,974	3,149	18,263
10	Pennsylvania	250	9,793	70,172	61,693	27,157	69,745
11	Vermont	6	45	0	158	64	149
12	Wisconsin	73	1,056	8,274	19,092	5,784	14,482
Total:		1,273	48,805	335,222	330,061	173,425	488,947

Source: Environmental Integrity
Project/Council of State Governments

Baseline Actual Emissions: S/A “Menu of Options”

- Retain use of average actual emissions based on previous two years (or representative period)
- Require use of single baseline period for each project--Wisconsin
- Disallow use of “excess emissions” (i.e., malfunctions and start-up and shutdown)--Wisconsin

Actual to Future Actual Test: EPA's Rule

- Source determines applicability based on emissions projections during 5-10 year period
- Projections adjusted downward as result of demand growth
- No notification to agency; no tracking of emissions

Actual to Future Actual Test: S/A “Menu of Options”

- Retain the actual to potential test for non-utilities and WEPCO test for utilities
- Adopt actual to projected actual test with enhancements
 - Eliminate “demand growth” exclusion
 - Require replacement units to use actual to potential test
 - Enhance recordkeeping/reporting requirements
 - Make the projected actual limit enforceable

Plantwide Applicability Limits: EPA's Rule

- Cap set at levels reflecting 10-year "look-back"
- PAL is adjusted upward for units installed after baseline
- Cap does not decline over time
- No minimum controls (e.g., BACT) for new units

Plantwide Applicability Limits: S/A “Menu of Options”

- Set emissions cap at contemporaneous levels
- Cap should decline over time reflecting BACT on all significant units—Wisconsin
- All significant new units added under a PAL should meet LAER/BACT

Clean Unit Exemption: EPA's Rule

- Allows extended "look back" up to ten years, irrespective of whether controls reflect today's BACT/LAER
- Sources qualifying escape NSR for up to 10 (and possibly 15) years in future
- Not protective of air quality

Clean Unit Exemption: S/A “Menu of Options”

- Sources qualify only if they have gone through major NSR or equivalent process (e.g., BACT/LAER, air quality analysis, public comment)--Indiana
- Exemption should be provided for prospective installation of stringent controls
- Exemption provided for limited time (e.g., 5 years)
- For new nonattainment areas, revoke/bar renewal of clean unit status

Pollution Control Projects: EPA's Rule

- “Environmentally Beneficial” projects are presumed to qualify
- Burden on state/local agency to disapprove
- Facility can construct without state/local approval (“notice and go”)
- No public comment process

Pollution Control Projects: S/A “Menu of Options”

- Disallow exclusion for replacement or reconstruction of existing equipment
- Require permit application for presumptive PCPs before commencement
- Provide for appropriate air quality analysis
- Provide for public comment process

Equipment Replacement Exclusion: EPA's Rule

- Allows replacement of existing equipment with new equipment costing up to 20% of current value of entire process unit
- Cost allowance is not routine and provides industry "free pass" from NSR (and controls)
- 1000 MW utility could spend \$50-\$250 million and not trigger NSR
- Equipment replacement provision could allow an entire process unit to be replaced without triggering NSR

Equipment Replacement Exclusion: Ohio Edison Company Example

Equipment Replacement	Unit	Year(s) of Equipment Replacement	Cost of Equipment Replacement (\$millions)	Cost of Equipment Replacement in 2001 Dollars (\$millions)	Cost of Process Unit Replacement in 2001 Dollars (\$millions)	Percentage of Process Unit Replacement Cost Represented by Equipment Replacement Cost
1	Unit 1	1993	6.222	8.116	162	5.0%
2	Unit 2	1991	6.457	8.396	162	5.2%
3	Unit 3	1992	9.018	11.383	162	7.0%
4	Unit 4	1990	5.717	7.746	162	4.8%
5	Unit 5	1984	33.000	56.249	270	20.8%
6	Unit 5	1990	5.008	6.785	270	2.5%
7	Unit 6	1986-87	4.900	7.918	540	1.5%
8	Unit 6	1991-92	22.657	29.460	540	5.5%
9	Unit 6	1998	16.522	17.951	540	3.3%
10	Unit 7	1989-90	25.428	36.316	540	6.7%
11	Unit 7	1991	1.146	1.491	540	0.3%

EQUIPMENT REPLACEMENT EXCLUSION: S/A “Menu of Options”

- Permitting authority publishes lists of “routine” and “not routine” activities and applies same criteria and guidelines as above for unlisted activities—have discussed approach with the Clean Energy Group
- Adopt specific criteria to be considered by source when determining if a change is “routine” and provide guidelines on how to use criteria

State Update

- Some are adopting federal rules with minor changes
- Others are customizing the rules to fit their programs
- Many states/localities are awaiting the outcome of legal challenges

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