

Woodstove new source performance standards

electronic hallway

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Case summary

- ◆ EPA needs to promulgate rules governing emissions from woodstoves
- ◆ Need consensus on a proposed rule, to be used as a basis for the final rule
- ◆ Parties:
 - Agency (Ajax)
 - Environmentalists (Doniger + other)
 - State governments (Kowalczyk & colleague)
 - Wood Heating Alliance (Menotti)
 - ◆ Emissions Technical Committee (Ferguson)
 - Facilitator (Harter)

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Regulatory issues

1. Emission levels: how many grams per hour? down from 70 depending on
 - Type of wood
 - Wood stacking in combustion chamber
 - Technology of unit (efficiency of burn)
 - Heat of fire
- ◆ Formula weighing emission levels at 4 burn rates (uniform, or multiple figures)

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Regulatory issues (cont.)

2. Compliance date: how many months after publication of final rule:

- Immediately (0 months)
- Other time periods
- Grandfather clauses possible for
 - ◆ currently installed models
 - ◆ Oregon-certified models

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Regulatory issues (cont.)

3. Testing:

- Who should test?
- What quality safeguards?
- Centralized or decentralized?
 - Should they be accredited?
 - ◆ Demonstrated testing proficiency
 - ◆ Staff credentials
 - ◆ Equipment specs
 - ◆ Record keeping
 - ◆ Financial condition
 - ◆ Business practices
- Not accredited?
 - ◆ EPA program to observe testing and review reports

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Process

Think about role, prepare strategy

- ◆ Interests
- ◆ Tentative initial position

Task: develop consensus package

- Commitment to developing proposals that can be unanimously endorsed
- Any participant can suggest a rule
 - Can introduce new issues/creative solutions
- Base rule on best available information

If EPA rule based on consensus developed,

- participants pledge to support it
- No challenge, no action to inhibit rule adoption

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Debrief

- ◆ Did negotiations deviate from your plan?
- ◆ What process factors were useful in reaching agreement?
- ◆ What was the biggest stumbling block?
- ◆ In what order did you discuss the main three issues?
(emission levels, compliance dates, testing)
- ◆ What are the characteristics of good regulations?

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Debrief

- ◆ Did you discuss ground rules for developing consensus rule?
- ◆ What process factors were useful in reaching agreement?
- ◆ How did the parties' interests affect outcome?
- ◆ What other issues came up?

- ◆ Who had power? How did they exercise it?
- ◆ What are the primary sources of conflict in devising a government regulation?

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Positions and interests

Party	Position (Best Hope)	Interest	Priority
NDRC	2/5 g/hr.....	Show progress in regulating	M
	effective, date of publication.....	Reduce emissions promptly	H
	EPA audited labs.....	Retain strong EPA enforcement role	L
STATES	3/7.5 g/hr.....	Advance Oregon regs and technology	L
	effective, date of publication.....	Show progress in ambient air quality attainment	M
	EPA lab.....	Uniform, low cost to states	H
EPA	3/7.5 g/hr.....	Tighten existing standard	L
	effective, date of publication.....	Incentive to avoid footdragging by major manufacturers	M
	EPA certified labs.....	Uniform and reliable enforcement at low administrative costs	H
	(2000 unit exemption).....	Safeguard small manufacturers -- equity	(H)
WHA	4.39.5 g/hr.....	Uniform standards	L
	effective, 24 months after publication.....	Sufficient time to avoid missing a selling season and to develop technology	M
	self-certify.....	Avoid logjam	H

H= High M=Moderate L=Lowest (relative significance of interests)

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Key lessons

◆ **What is success?**

- a good outcome:
 - ◆ Maximizes joint gains (efficient)
 - ◆ Equitable
 - ◆ Durable
 - ◆ ...
- a good process
 - ◆ Fair
 - ◆ Transparent
 - ◆ ...

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Sources of conflict in devising gov't regulation

◆ **Mixed-motive situation with three key elements:**

- Identify joint gains and secure them, avoiding outcome worse than status quo
- Distribute gains fairly, protect against unfair outcomes
- Devise enforcement scheme to protect against opportunism (one party almost always benefits from not complying)

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Divisible Prisoners' Dilemma

		Player B		
		Agreement #1	Agreement #2	Non-performance
Player A	Agreement #1	19, 7 Reward Structure 1 C1	9, 2 Status Quo D	3, 11 B non-performs NPb
	Agreement #2	9, 2 Status Quo D	16, 10 Reward Structure 2 C2	3, 11 B non-performs NPb
	Non-Performance	22, 1 A non-performs NPa	22, 1 A non-performs NPa	9, 2 Status Quo C

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Divisible Prisoners' Dilemma

- ◆ Each person chooses to
 - perform in accord with the reward structure C1 or C2; or
 - not to perform, which yields the returns NP_a, NP_b, or D.
- if the players both act in accord with agreement #1,
 - A receives 19
 - B receives 7
- if B conforms to agreement #1 and A chooses not to perform,
 - A receives 22 and B receives 1.
- ◆ both players face *similar* (not identical!) incentives; → other things equal, they will fail to agree and will be at D (status quo, worst of the outcomes for both)

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Divisible Prisoners' Dilemma

1. **Coordination problem:**
identifying feasible alternatives each sees as mutually preferable to the status quo (C1 and C2).
2. **Division problem:**
agreeing to one or another distribution of the gains (C1 or C2).
3. **Enforcement problem:**
devising a mechanism to identify and to sanction nonperformers sufficient to deter defection from an agreement.

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Woodstoves as divisible pd

1. **joint gains: national standards**
 - Everyone benefits but
 - If costs are too high for some, conflict
2. **distribution:**
emission level & compliance date
 - State burdens differ; s do manufacturers' costs
 - Non-uniform standards & staggered compliance seem equitable but higher in administrative costs

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Woodstoves

3. enforcement mechanisms:

- No rule can be so tight that that it ensures compliance in all circumstances, threatening trust among negotiators
- Need for design of enforcement system that gives all incentives to comply (costly)
- Need to decide how to split the costs
- ◆ the total cost of all three challenges threatens to overwhelm benefits of regulation

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Solution to the divisible PD

◆ satisfies the features of good negotiated outcome:

- **Wise** – use all available information to get the most joint gains in cost-effective way compared to other decision methods
- **Fair** – reasonable burdens on participants and public at large
- **Efficient and stable** – incentives to comply in most economic fashion with reasonable assurances, improving relations among parties

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Conditions for negotiated rulemaking - EPA

◆ situations with high probability of success:

- Limited number of interrelated issues to resolve
- No serious obstacle to consensus (no challenge to parties' fundamental values)
- Statutory or judicial deadline for completing the rule to force action
- Prospective participants share common ground
- Costs & benefits concentrated on a few entities
- Relatively few identifiable parties
- Willingness to negotiate in good faith
- Parties see ongoing relationship with the agency

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EPA administrative factors

- ◆ selected staff may devote more time to this process than they would otherwise spend on a single rule (labor-intensive)
- ◆ Office of Management and Budget oversees regulatory agencies and can undo the outcome unless convinced that EPA's negotiator properly represents the Federal government's views.
- ◆ EPA cannot rely on other participants to provide all the technical support the committee will need; negotiated rulemaking does not necessarily reduce preproposal data collection and analysis

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What really happened

- ◆ the committee achieved consensus on a proposed rule after hard bargaining in the final session.
- ◆ The final rule published by EPA appears in the Federal Register, Volume 52, Number 32, page 4994; it continues for over 70 pages.
- ◆ The rule comes in two phases:
 - the first takes effect about six months after publication;
 - the second, more stringent rule takes effect about 24 months later.
 - Phase I emission level is about equal to Oregon's second phase:
 - 8.5/5.5; phase II is 7.5/4.1 (noncatalytics/catalytics).
 - Certification testing will be done by EPA accredited labs; that is, NVLAP plus additional EPA requirements and proficiency testing of the labs.
 - Oregon certified stoves were exempt for phase I; manufacturers with production under 2000 stoves per year are exempt for one year.

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What really happened

- ◆ The key participants would probably describe this negotiation as a "good" one in terms of the criteria mentioned earlier.
- ◆ After EPA promulgated the rule, preliminary reports from new technical studies called into question the success of the outcome.
- ◆ Independent laboratories tested emissions from woodstoves as used by residents when installed in their homes. The results differed significantly from those achieved under laboratory conditions, the sort required in the final rule for certifying a stove.
- ◆ Thus, the dispute over woodstove regulation has not ended.

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