# Reducing Mercury in PA: How and When?

Presentation to PA DEP Mercury Workgroup, November 30, 2005

Felice Stadler
Senior Manager, Mercury Campaign
National Wildlife Federation
202-797-6692, stadler@nwf.org



#### Presentation Overview

- What does federal rule look like for PA?
- □ How do different options compare to CAMR?
- □ Where do options diverge?
  - Not just the level of reduction, but by when, and by what method.

### CAMR and PA

Current	2010-	2010-	2015-	2018-	2020-
Emissions (1999)	Allocated	IPM	IPM	Allocated	IPM
(1999)	Cap	Estimate	Estimate	Сар	Estimate
9,959	3,560	3,000	2,600	1,406	2,400
Level of emission reduction	64%	70%	74%	86%	76%

2010 – Phase One cap will be met through CAIR implementation

2010-2020 - 6% reduction estimated

2020 - Emissions will be 59% over allocated cap

Issue	CAMR-PA	STAPPA/ALAPCO	Citizen Petition
Stringency of Standard	Phase 1: "64% emission reduction" Phase 2: "86% emission reduction" [1999 baseline]	Phase 1: 80% control Phase 2: 90-95% control	90% control or 3.0mg/MWh
Format of Standard	State caps, with plant allocations	% control or emission rate	% control or emission rate
Compliance Deadline	No date by when cap must be met.  If state opts into trading program, no cap on emissions.	Phase 1: 2008 Phase 2: 2012	2007
Compliance Flexibility	Open trading	Rolling averages Intra-state averaging for Phase 1 Deadline extensions for multi-pollutant controls	Deadline extensions to 2012 for binding multi-pollutant control agreement or shutdown agreement.

## Unresolved issue #1: How should reductions be achieved?

- □ Eliminate trading option
  - Picture Pennsylvania:
    - □ Home to local mercury sources & downwind from large cluster of sources.
    - Deposition from in-state sources very likely.
    - Deposition from sources immediately upwind very likely.
    - □ Why sell credits upwind that will dump downwind (into PA)?
    - □ Why use credits and dump downwind? (not just downwind in Pennsylvania but also in treasured places further away, Chesapeake Bay or even Acadia National Park)
  - The goal is to reduce mercury loadings in PA, therefore, trading doesn't make sense.

# Unresolved Issue #2: When should reductions be required?

- □ PA DEP already on record supporting something more stringent than CAMR.
- Most major hardware installations occurring by 2010 to meet CAIR.
- Given the state of mercury control technology, waiting until 2018 isn't justified.
- □ PA DEP needs to consider options that include a much more stringent timetable.
- Need stringent standard to be technology forcing.

Control Configurations	Existing (%Hg Control)	2010 Planned Retrofits	2015 Planned Retrofits (% Hg Control)
ESP	20 (36%)	[8 will retire]	
ESP + SCR	7 (36%)		
ESP + FGD	5 (66%)		
FF	5 (75%)		
H-ESP + SNCR + FGD	4 (50%)		
ESP + SNCR	3 (35%)		+ FGD, 3 (66%)
DS + FF	3 (95%)		
DS	3 (40%)		
ESP + SCR + FGD	1 (85-90%)	14	4
OTHER	10 (40-90%)		
TOTAL	61 boilers with controls (of 76)	14 with planned upgrades	7 with planned upgrades

## Concluding Points

- □ Key questions for PA DEP are timing and method of compliance
- □ CAMR levels likely not to be met until past 2025, if at all.
- Deposition from local and upwind sources makes trading ill-advised
- Regulatory options to consider:
  - Hard caps within shorter timeframe
  - Flexibility other than trading—what's worked with other pollutants? And in other states?
  - Either/or standard to ease compliance