

EPA's Transport Rule vs. CAIR – How Are Connecticut Sources Impacted?

SIPRAC

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Key differences between CAIR and proposed transport rule

- Fewer CT sources in proposed transport rule program
- Additional scope applies to CT sources – annual NO_x and SO₂
- State cap and no credit for prior emission reductions
- Allocation methodology

Applicability

CAIR – Subject units

- Fossil-fuel-fired emissions units that:
 - Serve a generator with a rated output ≥ 15 MW
 - Have a maximum design heat input ≥ 250 MMBtu/hr
- Any emissions unit participating in the NBP

Compliance date:

- Ozone season NO_x – May 1, 2009

Proposed Transport Rule - Subject units

- Fossil-fuel-fired EGUs with a rated output > 25 MW

Compliance dates (phase I):

- Annual SO₂ and NO_x - by January 1, 2012
- Ozone season NO_x - by May 1, 2012

CAIR sources not included in proposed transport rule

Proposed rule does not include non-EGUs and units with outputs ≤ 25 MW, and

No provisions for allowing states to expand applicability to include them...

- No “backsliding”: equivalent controls required
- DEP is exploring control options and requesting EPA guidance

Proposal does allow non-EGUs to opt into trading programs

CT sources in CAIR, not in proposed transport rule

- Branford 10
- Bridgeport Harbor 4
- Cascades Boxboard PFI boiler
- Cos Cob 10-14
- Devon 10
- Franklin Drive
- Middletown 10
- Norwalk Harbor 10
- Norwich
- Pfizer 5
- Torrington Terminal
- Tunnel
- Waterside Power 4, 5, 7

NAAQS

The **proposed transport rule** based on the requirements of CAA section 110(a)(2)(D)(i)(I) as they relate to:

- The 1997 annual PM_{2.5} standard (15 µg/m³),
- The 2006 daily PM_{2.5} standard (35 µg/m³), and
- The 1997 ozone standard (0.08 ppm 8-hour)

CAIR, which pre-dated the 2006 standards, based on the 1997 ozone and PM_{2.5} (15 µg/m³ annual and 65 µg/m³ daily) standards only.

The **proposed transport rule** does not consider the 2008 ozone standards that are currently under reconsideration

Emissions budgets

2012/2014 transport rule Connecticut budget:

- Annual EGU SO₂ emissions = 3,059 tons
- Annual EGU NO_x emissions = 2,775 tons
- Ozone season EGU NO_x emissions = 1,315 tons

Allowance budgets do not account for variability

In Connecticut CAIR covers ozone only

- CAIR ozone season NO_x emissions = 2,691 tons (2,559 for EGUs only)
- Proposed transport rule NO_x ozone season budget is 1,244 tons more stringent than CAIR budget

CT actual emissions and proposed transport rule budgets

Year	Actual SO ₂ emissions for EGUs \geq 25 MW TR budget=3059 tons*	Actual ozone season NO _x emissions for EGUs \geq 25 MW TR budget=1315 tons*	Actual annual NO _x emissions for EGUs \geq 25 MW TR budget=2775 tons*
2007	6899	2002	4551
2008	6359	1756	3808
2009	4158	774	2309

*Not including variability

Allocation methodology

Transport rule allocation methodology set out in “State Budgets, Unit Allocations and Unit Emissions Rates TSD”:

- For units with both reported and projected data, allocations are based on lowest data source used in the state budget.
- CTDEP recognizes the limits of IPM and is providing EPA with IRP projections (IPM projects that all 9 LFBs will not operate in 2012 (based on NO_x allocations); IRP projects that 4 LFBs will shut down in 2013 and another 2 LFBs will shut down in 2016).

CAIR NO_x allocation methodology (RCSA section 22a-174-22c)
HI based for cogeneration units, non-EGUs and Exeter;
electricity output based for EGUs.

Set-asides

Proposed transport rule has a 3% new unit set-aside and no energy efficiency/renewable energy (EE/RE) set-aside.

CAIR (RCSA section 22a-174-22c) has a 7% new unit set-aside from 2009-2014, a 5% new unit set-aside starting in 2015 and a 10% EE/RE set-aside.

Note: New unit set-aside in transport rule is a small percentage of a smaller budget.

Allowance trading

EPA is proposing one approach and taking comment on two alternatives:

1. Allows unlimited intrastate trading and limited interstate trading (EPA's preferred approach)
2. Trading is allowed only within a state
3. EPA specifies the allowable emission limit for each power plant and allows some averaging of emission rates

Banking & carrying forward allowances

- Banking of allowances for use in future years would be allowed, but EPA seeks comment on whether CAIR NO_x allowances should be carried forward.
- CAIR allows regional trading and banking and allows 2003-2008 NBP NO_x allowances to be carried forward.

Currency

Unlike CAIR, proposed transport rule does not allow the use of Title IV allowances for meeting SO₂ budgets.

Annual and ozone season NO_x currencies are the same in proposed transport rule and CAIR.

Trading limitations for EPA's proposed preferred approach

States are not geographically limited with respect to NO_x trading, but are geographically limited with respect to SO₂ trading.

- Group 1 states can only trade with other Group 1 states and Group 2 states (including CT) can only trade with other Group 2 states.
- Option for limited banking of NO_x will incentivize early installation of controls.

CAIR did not limit the states that could trade with each other and allowed generous banking.

Compliance

Allowance management system (AMS) - operated essentially the same way as the existing AMS currently used for CAIR and the Acid Rain Program - to track compliance

Require monitoring of annual SO₂ and NO_x emissions by all existing covered sources by January 1, 2012

Require monitoring of ozone season NO_x emissions by May 1, 2012

Quarterly emissions reports to EPA

Variability

Connecticut 2014 NO_x variability limits (tons)

		Proposed		Alternative	
	NO _x budget	1-year limit	3-year average limit	1-year limit	3-year average limit
Annual	2,775	5,000	2,887	583	336
O3 Season	1,315	2,100	1,212	355	205

- Under certain scenarios, alternative NO_x variability limits, and proposed variability limits, would not be adequate to cover replacement emissions in the event of a prolonged loss of non-fossil generation capacity.
- CAIR did not include variability limits (but banked and carried forward allowances provided insurance against prolonged loss of non-fossil generation capacity).

Penalties and assurance provisions for EPA's preferred approach

Automatic penalty: For each ton of excess emissions over the number of held allowances – one allowance to cover the ton of emissions and one allowance as an excess emissions penalty

Discretionary penalty: For each ton of excess emissions, as well as each day in the averaging period – maximum of \$25,000 (inflation-adjusted to \$37,500 for 2009) per violation under CAA Section 113.

Assurance provisions: Owner would be required to surrender one allowance for each ton emitted over the owner's proportional share of the amount by which state emissions exceed the state budget with the variability limit.

CAIR required a deduction of 3 tons for each ton of excess emissions and did not include assurance provisions.

FIP instead of SIP

- Proposed transport rule implemented through a FIP. States are permitted to submit an equivalent SIP, but guidance is not provided.
- CAIR included specific guidance for states to submit SIPs, and the CAIR FIP was secondary.

Permitting

- CAIR required submission of a CAIR permit application to the permitting authority.
- Transport rule would not require a specific permit.
 - Requirements concerning designated representatives, monitoring, reporting and record keeping, the requirement to hold allowances covering emissions, the assurance provisions, and liability would be “applicable requirements” and included in the Title V permits.

CT specific transport rule issues

- Sources that should have been included in allocation table were not and vice versa.
- Unclear applicability for certain sources.
- Some sources received ozone season NO_x allocations but not annual NO_x allocations.
- Allowances allocated to one source do not appear consistent with 2007-2009 operations.
- SO₂ and NO_x allocations from EPA's allocation table do not exactly match the budgets included in the transport rule (6 ton discrepancy).
- EPA guidance needed for addressing SIP requirements for CAIR small and non-EGUs not included in transport rule.

Schedule for final transport rule

Proposal signed on July 6, 2010 and published in the Federal Register on August 2, 2010.

Public comment period ends on October 1, 2010, except for NODA announced on September 1, 2010 (public comment period ends on October 15, 2010).

Final rule expected in late spring 2011.

Comments

- CTDEP encourages CT sources to review the proposed transport rule and data and submit comments on the record.
- Submit comments to: a-and-r-docket@epa.gov. Attention Docket ID No. EPA-HQ-OAR-2009-0491.

Questions?

- Contact Wendy Jacobs at 860-424-3457 or wendy.jacobs@ct.gov