
PM10 & NO_x
Mobile Source Emissions Budget
for 2022 & Beyond

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CAA and EPA Conformity Requirements for Emissions Budgets

- **Regional transportation plans to be consistent with mobile source emissions contained in applicable SIPs**
- **Motor vehicle emission budget(s) must:**
 - **be established for the last year of the SIP or any other appropriate year, and**
 - **consider growth in non-mobile sources.**
- **SIPs may quantify explicitly the safety margin allocated to motor vehicle emissions while still demonstrating compliance.**
- **Issues:**
 - **Allocation of Safety Margin**
 - **PM10/NOx Trading**

Allocation of Safety Margin

- **The region has historically allocated safety margin:**
 - **To assist in the transportation conformity process, and**
 - **Because the required emission estimating models have changed and continue to change over time.**

- **Current PM10 Maintenance Plan (SIP) allocates the available safety margin to the motor vehicle emissions budgets.**

- **Safety margin was allocated to the NOx budget, because it was generally believed that NOx was more difficult for local control measures, while PM10 can be controlled through local conformity commitment process.**

- **Current Emissions Budgets**
 - **51 TPD PM10**
 - **101 TPD NOx**

Allocation of Safety Margin

- **Consideration of future growth :**
 - **Major NO_x & SO₂ sources are assumed to operate at maximum allowable emissions adding approx. 50 tpd of NO_x +SO₂ to the 2030 secondary roll forward analysis.**
 - **Major PM₁₀ sources are assumed to operate at maximum allowable emissions adding approx. 2 tpd of PM₁₀ to the 2030 ISCST3 emissions analysis.**
 - **Mobile Source PM₁₀ estimated at SIP regulatory requirements rather than actual practice.**

Summary of PM10 & NOx Mobile Source Emissions Estimates

■ <u>YEAR</u>	<u>NOX</u>	<u>PM10</u>
■ 2001	131.9	33.1
■ 2015	50.0	46.6
■ 2022	37.6	52.1
■ 2025	35.6	54.3
■ 2030	31.9	58.1
■ 2030 w/ current SS Practice	31.9	49.6

Allocation of Safety Margin Emissions Budget Analysis

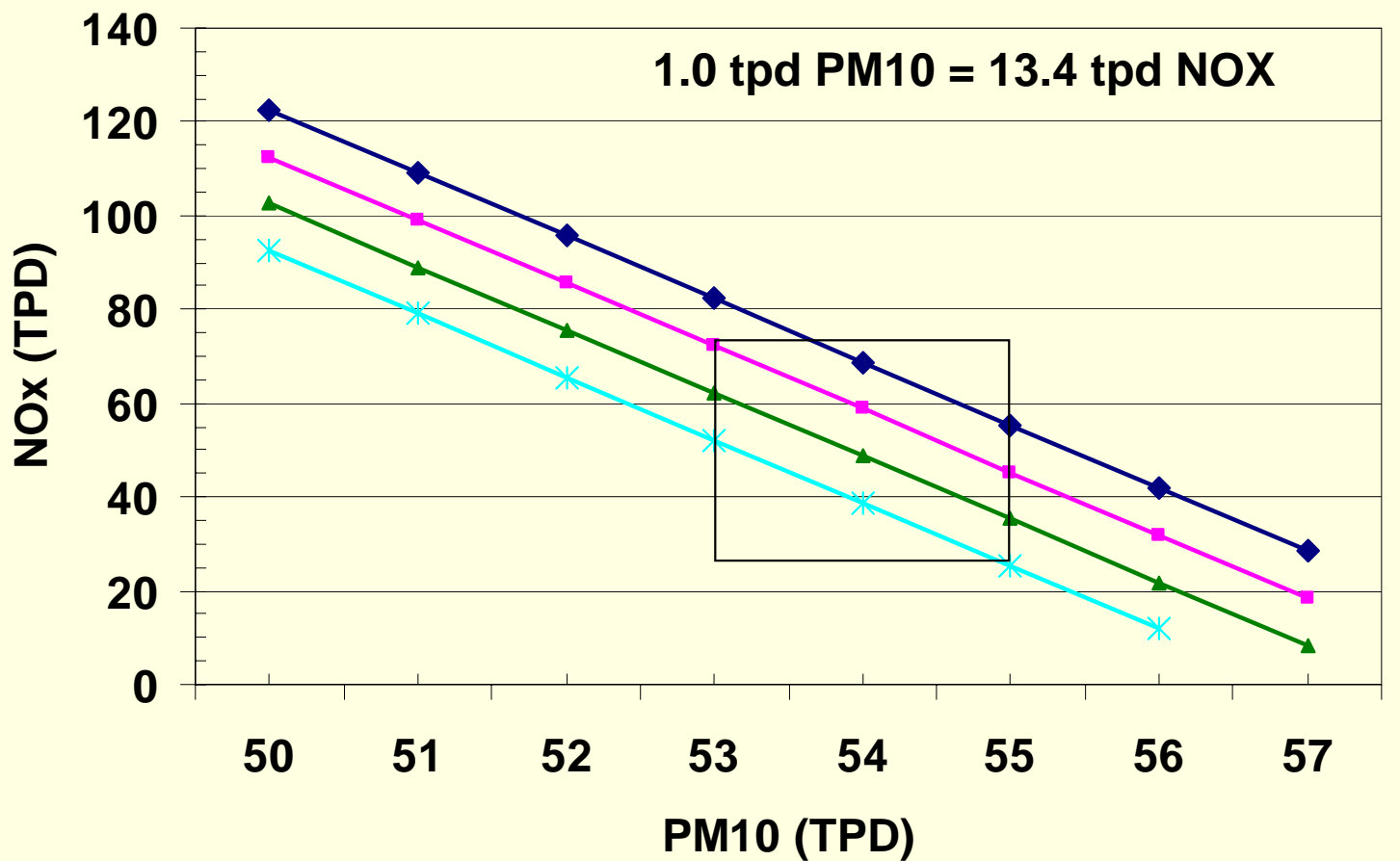
Available NOx & PM10 Safety Margin in 2022

	NOx	PM10
Maximum Allowable Concentration	149.9 ug/m3	149.9 ug/m3
Maintenance Demonstration	<u>145.2</u> ug/m3	<u>145.2</u> ug/m3
Available "safety margin"	4.7 ug/m3	4.7 ug/m3
NOx Secondary Concentration	<u>19.9</u> ug/m3	
Allowable NOx Sec. Conc.	24.6 ug/m3	
Allowable NOx Emissions	297.0 tpd *	
2022 NOx Emissions	<u>240.3</u> tpd	
Available "safety margin"	56.8 tpd	4.2 tpd **
2022 Mobile Sources	<u>37.6</u> tpd	<u>52.1</u> tpd
Maximum 2022 MS Emissions Budget	94.3 tpd	56.4 tpd

* 1 ug/m3 = 12.1 tpd NOX

** 1 ug/m3 = 0.9 tpd PM10

Potential PM10/NOx Emissions Budgets



◆ NOx w/All. SM ■ NOx w/10 res. ▲ NOx w/20 res. * NOx w/30 res.

Potential NO_x & PM₁₀ Emissions Budgets for Consideration

■ PM₁₀ (TPD)	53	54	55
■ NO_x (TPD)			
■ w/10 TPD SM res.	72	58	45
■ w/20 TPD SM res.	62	48	35
■ w/30 TPD SM res.	52	38	25

PM10/NOx Emissions Budget Trading

- **Specific PM10 & NOx emissions budgets established in SIP, such as:**
 - 55 TPD PM10
 - 45 TPD NOx
- **PM10/NOx trading allowed at a ratio established based on modeling in the SIP:**
 - 1.0 TPD PM10 = 13.4 TPD NOx
- **Before trading is allowed, MPO must consider all reasonably available local control measures to meet specific established budgets.**