

Technical Support Document (TSD)  
for the Transport Rule  
Docket ID No. EPA-HQ-OAR-2009-0491

**State Budgets, Unit Allocations, and Unit Emissions Rates:  
Field Descriptions for Detailed Unit-Level Data**

U.S. Environmental Protection Agency  
Office of Air and Radiation  
July 2010

Table 1. Unit Characteristics

<b>Field Name</b>	<b>Description</b>
Plant Name	Plant name
ORIS	Facility ORIS code
Unit ID	Unit ID
State	State name
NEEDS ID	Unique identifier in National Electric Energy Data System (NEEDS) v3.02 EISA, which is used in IPM modeling. Blank for units not included in NEEDS v3.02 EISA.
Capacity (MW)	Net summer generating capacity. Blank for units not matched to NEEDS, which are assumed to be greater than 25 MW.
Projected-Reported Relationship	Number of NEEDS units mapped to source of reported data. Typically, the relationship is 1:1. Where 2 or more NEEDS units are mapped to a single unit reporting data, the emissions are divided evenly between the NEEDS units.
Committed SCR - 2010-2011	SCR expected online in 2010-2011
Committed SCR - 2009	SCR online in 2009
Committed SNCR - 2010-2011	SNCR expected online in 2010-2011
Committed SNCR - 2009	SNCR online in 2009
Committed FGD - 2010-2011	FGD expected online in 2010-2011
Committed FGD - 2009	FGD online in 2009
SCR Installed before 2009	SCR installed prior to 2009
SNCR Installed before 2009	SNCR installed prior to 2009
Projected Base Case Non-Dispatchable FGD Retrofit	New FGD retrofit projected to be installed in TR Base Case modeling.
Projected Base Case Non-Dispatchable SCR Retrofit	New SCR retrofit projected to be installed in TR Base Case modeling.
Projected Base Case Non-Dispatchable SNCR Retrofit	New SNCR retrofit projected to be installed in TR Base Case modeling.
SCR - Existing or Committed by 2012 (non-dispatchable)	Non-dispatchable SCR expected online by 1/1/2012
SNCR - Existing or Committed by 2012	SNCR expected online by 1/1/2012
SCR - Existing or Committed by 2012 (dispatchable)	Dispatchable SCR expected online by 1/1/2012

State Budgets, Unit Allocations, and Unit Emissions Rates – Field Description

<b>Field Name</b>	<b>Description</b>
FGD - Existing or Committed by 2012 (dispatchable)	Dispatchable FGD expected online by 1/1/2012
Covered Unit (Fossil > 25 MW)	Covered unit under the Transport Rule (Fossil-fired, greater than 25 MW capacity )
NEEDS FGD Removal Rate (%)	SO <sub>2</sub> removal rate attributable to FGD

Notes: NEEDS v3.02 EISA available at: <http://www.epa.gov/airmarkets/progsregs/epa-ipm/transport.html>

For more information on dispatchable controls, see “Updates to EPA Base Case v3.02 EISA Using the Integrated Planning Model” available in the docket.

Table 2. Reported Data

Field Name	Description	
Plant Name	Plant name	
ORIS	Facility ORIS code	
Unit ID	Unit ID	
State	State name	
Heat Input Q1-2007 (mmBtu)	Quarterly heat input as reported to EPA	
Heat Input Q1-2008 (mmBtu)		
Heat Input Q1-2009 (mmBtu)		
Heat Input Q2-2007 (mmBtu)		
Heat Input Q2-2008 (mmBtu)		
Heat Input Q2-2009 (mmBtu)		
Heat Input Q3-2007 (mmBtu)		
Heat Input Q3-2008 (mmBtu)		
Heat Input Q3-2009 (mmBtu)		
Heat Input Q4-2007 (mmBtu)		
Heat Input Q4-2008 (mmBtu)		
NO <sub>x</sub> Mass Q1-2007 (tons)		Quarterly NO <sub>x</sub> emissions as reported to EPA
NO <sub>x</sub> Mass Q1-2008 (tons)		
NO <sub>x</sub> Mass Q1-2009 (tons)		
NO <sub>x</sub> Mass Q2-2007 (tons)		
NO <sub>x</sub> Mass Q2-2008 (tons)		
NO <sub>x</sub> Mass Q2-2009 (tons)		
NO <sub>x</sub> Mass Q2-2009 (tons)		

State Budgets, Unit Allocations, and Unit Emissions Rates – Field Description

Field Name	Description	
NO <sub>x</sub> Mass Q3-2007 (tons)		
NO <sub>x</sub> Mass Q3-2008 (tons)		
NO <sub>x</sub> Mass Q3-2009 (tons)		
NO <sub>x</sub> Mass Q4-2007 (tons)		
NO <sub>x</sub> Mass Q4-2008 (tons)		
SO <sub>2</sub> Mass Q1-2007 (tons)	Quarterly SO <sub>2</sub> emissions as reported to EPA	
SO <sub>2</sub> Mass Q1-2008 (tons)		
SO <sub>2</sub> Mass Q1-2009 (tons)		
SO <sub>2</sub> Mass Q2-2007 (tons)		
SO <sub>2</sub> Mass Q2-2008 (tons)		
SO <sub>2</sub> Mass Q2-2009 (tons)		
SO <sub>2</sub> Mass Q3-2007 (tons)		
SO <sub>2</sub> Mass Q3-2008 (tons)		
SO <sub>2</sub> Mass Q3-2009 (tons)		
SO <sub>2</sub> Mass Q4-2007 (tons)		
SO <sub>2</sub> Mass Q4-2008 (tons)		
Heat Input Ozone Season 2009 (mmBtu)		Ozone season heat input as reported to EPA
NO <sub>x</sub> Mass 2009 Ozone Season 2009 (tons)		Ozone season NO <sub>x</sub> emissions as reported to EPA
Heat Input Ozone Season 2008 (mmBtu)	Ozone season heat input as reported to EPA	
NO <sub>x</sub> Mass Ozone Season 2008 (tons)	Ozone season NO <sub>x</sub> emissions as reported to EPA	

State Budgets, Unit Allocations, and Unit Emissions Rates – Field Description

<b>Field Name</b>	<b>Description</b>
Heat Input Ozone Season 2007 (mmBtu)	Ozone season heat input as reported to EPA
NO <sub>x</sub> Mass Ozone Season 2007 (tons)	Ozone season NO <sub>x</sub> emissions as reported to EPA
Annual NO <sub>x</sub> Mass, tons (most recent 4 Qs)	Sum of NO <sub>x</sub> emissions from most recent quarter 1, quarter 2, quarter 3, and quarter 4 for units with reported data. 0 for units without data from each quarter 1-4
Annual SO <sub>2</sub> Mass, tons (most recent 4 Qs)	Sum of SO <sub>2</sub> emissions from most recent quarter 1, quarter 2, quarter 3, and quarter 4 for units with reported data. 0 for units without data from each quarter 1-4
Annual Heat Input, mmBtu (most recent 4 Qs)	Sum of heat input from most recent quarter 1, quarter 2, quarter 3, and quarter 4 for units with reported data. 0 for units without data from each quarter 1-4
Ozone Season HI, mmBtu (most recent OS)	Ozone season heat input from most recent ozone season, 2007-2009
Ozone Season NO <sub>x</sub> Mass, tons (most recent OS)	Ozone season NO <sub>x</sub> emissions from most recent ozone season, 2007-2009
2008 Reported Heat Input (mmBtu)	2008 annual heat input as reported to EPA

Note: Reported emissions data available at:  
<http://camddataandmaps.epa.gov/gdm/index.cfm?fuseaction=emissions.wizard>

Table 3. Projected Data

<b>Field Name</b>	<b>Description</b>
Plant Name	Plant name
ORIS	Facility ORIS code
Unit ID	Unit ID
State	State name
Proj Base Case - Ozone Season Heat Input (mmBtu)	Projected 2012 ozone season heat input in TR Base Case
Proj Base Case - Annual Heat Input (mmBtu)	Projected 2012 annual heat input in TR Base Case
Proj Base Case - Ozone Season NO <sub>x</sub> Mass (tons)	Projected 2012 ozone season NO <sub>x</sub> emissions in TR Base Case
Proj Base Case - Annual NO <sub>x</sub> Mass (tons)	Projected 2012 annual NO <sub>x</sub> emissions in TR Base Case
Proj Base Case - Annual SO <sub>2</sub> Mass (tons)	Projected 2012 annual SO <sub>2</sub> emissions in TR Base Case
Fossil Fuel Unit (model)	Fossil fuel source in IPM modeling
Projected Annual NO <sub>x</sub> Mass - TR_NOX_500 (tons)	Projected annual NO <sub>x</sub> emissions in the IPM run titled: TR_NOX_500
Projected Annual Heat Input - TR_NOX_500 (mmBtu)	Projected annual heat input in the IPM run titled: TR_NOX_500
Projected Ozone Season NO <sub>x</sub> Mass - TR_NOX_OS_500 (tons)	Projected ozone season NO <sub>x</sub> emissions in the IPM run titled: TR_OS_500
Projected Ozone Season Heat Input - TR_NOX_OS_500 (mmBtu)	Projected ozone season heat input in the IPM run titled: TR_OS_500
Projected SO <sub>2</sub> Rate - TR_SO2_1600 (lbs/mmBtu)	Projected annual SO <sub>2</sub> emissions rate in the IPM run titled: TR_SO2_1600
Projected Heat Input - TR_SO2_1600 (mmBtu)	Projected annual heat input in the IPM run titled: TR_SO2_1600
Share of 2015 Projected SO <sub>2</sub> Emissions from Covered Units in TR SB Limited Trading	Unit share of state total projected SO <sub>2</sub> emissions from fossil-fired units greater than 25 mw in 2015 TR SB Limited Trading (Group 1 states only)

Table 4. Adjustments

<b>Field Name</b>	<b>Description</b>
Plant Name	Plant name
ORIS	Facility ORIS code
Unit ID	Unit ID
State	State name
Adjustment to Reported Annual NO <sub>x</sub> - pre-2009 SCR (tons)	Adjustment made to reported annual NO <sub>x</sub> emissions for units with SCR installed prior to 2009
Adjustment to Reported Annual NO <sub>x</sub> - pre-2009 SNCR (tons)	Adjustment made to reported annual NO <sub>x</sub> emissions for units with SNCR installed prior to 2009
Adjustment to Reported Annual NO <sub>x</sub> - 2010-2011 SCR (tons)	Adjustment made to reported annual NO <sub>x</sub> emissions for units with SCR expected online in 2010-2011
Adjustment to Reported Annual NO <sub>x</sub> - 2010-2011 SNCR (tons)	Adjustment made to reported annual NO <sub>x</sub> emissions for units with SNCR expected online in 2010-2011
SNCR removal efficiency (%)	NO <sub>x</sub> removal rate attributable to SNCR
Adjustment to Reported Annual NO <sub>x</sub> - 2009 SCR (tons)	Adjustment made to reported annual NO <sub>x</sub> emissions for units with SCR installed in 2009
Adjustment to Reported Annual NO <sub>x</sub> - 2009 SNCR (tons)	Adjustment made to reported annual NO <sub>x</sub> emissions for units with SNCR installed in 2009
Adjustment to Reported Annual NO <sub>x</sub> - non-Dispatchable SCR Retrofit in Base Case (tons)	Adjustment made to reported annual NO <sub>x</sub> emissions for units with non-dispatchable SCR retrofit projected in the 2012 TR Base Case
Adjustment to Reported Annual NO <sub>x</sub> - SNCR Retrofit in Base Case (tons)	Adjustment made to reported annual NO <sub>x</sub> emissions for units with SNCR retrofit projected in the 2012 TR Base Case
Adjustment to Reported SO <sub>2</sub> - 2010-2011 FGD (tons)	Adjustment made to reported annual SO <sub>2</sub> emissions for units with FGD expected online in 2010-2011
Adjustment to Reported SO <sub>2</sub> - 2009 FGD (tons)	Adjustment made to reported annual SO <sub>2</sub> emissions for units with FGD online in 2009
Adjustment to Reported SO <sub>2</sub> - non-Dispatchable FGD Retrofit in Base Case (tons)	Adjustment made to reported annual SO <sub>2</sub> emissions for units with non-dispatchable FGD retrofit projected in the 2012 TR Base Case
Adjustment to Reported Ozone-Season NO <sub>x</sub> - 2010-2011 SCR (tons)	Adjustment made to reported ozone season NO <sub>x</sub> emissions for units with SCR expected online in 2010-2011
Adjustment to Reported Ozone-Season NO <sub>x</sub> - 2010-2011 SNCR (tons)	Adjustment made to reported ozone season NO <sub>x</sub> emissions for units with SNCR expected online in 2010-2011
Adjustment to Reported Ozone-Season NO <sub>x</sub> - 2009 SCR (tons)	Adjustment made to reported ozone season NO <sub>x</sub> emissions for units with SCR online in 2009
Adjustment to Reported Ozone-Season NO <sub>x</sub> - 2009 SNCR (tons)	Adjustment made to reported ozone season NO <sub>x</sub> emissions for units with SNCR online in 2009
Adjustment to Reported Ozone-Season NO <sub>x</sub> - Non-Dispatchable SCR Retrofit in Base Case (tons)	Adjustment made to reported ozone season NO <sub>x</sub> emissions for units with non-dispatchable SCR retrofit projected in the 2012 TR Base Case
Adjustment to Reported Ozone-Season NO <sub>x</sub> - SNCR Retrofit in Base Case (tons)	Adjustment made to reported ozone season NO <sub>x</sub> emissions for units with non-dispatchable SNCR retrofit projected in the 2012 TR Base Case



State Budgets, Unit Allocations, and Unit Emissions Rates – Field Description

<b>Field Name</b>	<b>Description</b>
Total Adjustments to Reported Annual NO <sub>x</sub> (tons)	Sum of adjustments to reported annual NO <sub>x</sub> emissions
Total Adjustments to Reported SO <sub>2</sub> (tons)	Sum of adjustments to reported annual SO <sub>2</sub> emissions
Total Adjustments to Reported Ozone Season NO <sub>x</sub> (tons)	Sum of adjustments to reported ozone season NO <sub>x</sub> emissions
Adjustment to Projected Annual NO <sub>x</sub> - Existing/committed SCR (non-dispatchable) (tons)	Adjustment made to 2012 projected annual NO <sub>x</sub> emissions in TR Base Case for units with non-dispatchable SCR expected online by 1/1/2012
Adjustment to Projected Annual NO <sub>x</sub> - Existing/committed SNCR (non-dispatchable) (tons)	Adjustment made to 2012 projected annual NO <sub>x</sub> emissions in TR Base Case for units with non-dispatchable SNCR expected online by 1/1/2012
Adjustment to Projected Annual NO <sub>x</sub> - Existing/committed SCR (dispatchable) (tons)	Adjustment made to 2012 projected annual NO <sub>x</sub> emissions in TR Base Case for units with dispatchable SCR expected online by 1/1/2012
Adjustments to Projected Annual NO <sub>x</sub> - Non-Dispatchable SCR Retrofit in Base Case (tons)	Adjustment made to 2012 projected annual NO <sub>x</sub> emissions in TR Base Case for units with non-dispatchable SCR retrofit in 2012 TR Base Case
Adjustments to Projected Annual NO <sub>x</sub> - Non-Dispatchable SNCR Retrofit in Base Case (tons)	Adjustment made to 2012 projected annual NO <sub>x</sub> emissions in TR Base Case for units with non-dispatchable SNCR retrofit in 2012 TR Base Case
Adjustment to Projected SO <sub>2</sub> - Existing/committed FGD (dispatchable) (tons)	Adjustment made to 2012 projected annual SO <sub>2</sub> emissions in TR Base Case for units with dispatchable FGD expected online by 1/1/2012
Adjustment to Projected Ozone Season NO <sub>x</sub> - Existing/committed SCR (dispatchable) (tons)	Adjustment made to 2012 projected ozone season NO <sub>x</sub> emissions in TR Base Case for units with dispatchable SCR expected online by 1/1/2012
Annual NO <sub>x</sub> - Total Adjustments to Base Case Projections (tons)	Sum of adjustments to 2012 projected annual NO <sub>x</sub> emissions in TR Base Case
Annual SO <sub>2</sub> - Total Adjustments to Base Case Projections (tons)	Sum of adjustments to 2012 projected annual SO <sub>2</sub> emissions in TR Base Case
Ozone Season NO <sub>x</sub> - Total Adjustments to Base Case Projections (tons)	Sum of adjustments to 2012 projected ozone season NO <sub>x</sub> emissions in TR Base Case

Note: For further information on adjustments, see TSD titled: “State Budgets, Unit Allocations, and Unit Emissions Rates” available in the docket.

Table 5. Adjusted Data

<b>Field Name</b>	<b>Description</b>
Plant Name	Plant name
ORIS	Facility ORIS code
Unit ID	Unit ID
State	State name
Reported Annual NO <sub>x</sub> - Adjusted for Controls (tons)	Reported annual NO <sub>x</sub> emissions with control adjustments
Reported Annual SO <sub>2</sub> - Adjusted for Controls (tons)	Reported annual SO <sub>2</sub> emissions with control adjustments
Reported Ozone Season NO <sub>x</sub> - Adjusted for Controls (tons)	Reported ozone season NO <sub>x</sub> emissions with control adjustments
Reported Annual NO <sub>x</sub> - Adjusted for controls and heat input (tons)	Reported annual NO <sub>x</sub> emissions with control adjustments and heat input adjustment
Reported Ozone Season NO <sub>x</sub> - Adjusted for controls and heat input (tons)	Reported ozone season NO <sub>x</sub> emissions with control adjustments and heat input adjustment
Adjusted Annual NO <sub>x</sub> - Projected Base Case (tons)	2012 projected annual NO <sub>x</sub> in TR Base Case with control adjustments
Adjusted Annual SO <sub>2</sub> - Projected Base Case (tons)	2012 projected annual SO <sub>2</sub> in TR Base Case with control adjustments
Adjusted Ozone Season NO <sub>x</sub> - Projected Base Case (tons)	2012 projected ozone season NO <sub>x</sub> in TR Base Case with control adjustments

Note: For further information on adjustments, see TSD titled: “State Budgets, Unit Allocations, and Unit Emissions Rates” available in the docket.

Table 6. Allocations &amp; Rate Limits

<b>Field Name</b>	<b>Description</b>
Plant Name	Plant name
ORIS	Facility ORIS code
Unit ID	Unit ID
State	State name
SO <sub>2</sub> Group 1 (more stringent) & Annual NO <sub>x</sub> Region	Unit located in SO <sub>2</sub> group 1 state and annual NO <sub>x</sub> region
SO <sub>2</sub> Group 2 (less stringent) & Annual NO <sub>x</sub> Region	Unit located in SO <sub>2</sub> group 2 state and annual NO <sub>x</sub> region
Ozone Season Region	Unit located in ozone season region state
Source of SO <sub>2</sub> Data	For units with both reported and projected SO <sub>2</sub> emissions, the source of emissions data used in determining state budget, as determined at the state level
Source of Annual NO <sub>x</sub> Data	For units with both reported and projected annual NO <sub>x</sub> emissions, the source of emissions data used in determining state budget, as determined at the state level
Source of Ozone Season NO <sub>x</sub> Data	For units with both reported and projected ozone season NO <sub>x</sub> emissions, the source of emissions data used in determining state budget, as determined at the state level
2012 SO <sub>2</sub> Allocation	2012-2013 SO <sub>2</sub> allocation, rounded to the nearest ton, after withholding 3% for new unit set-aside
Annual NO <sub>x</sub> Allocation	Annual NO <sub>x</sub> allocation, rounded to the nearest ton, after withholding 3% for new unit set-aside
Ozone Season NO <sub>x</sub> Allocation	Ozone season NO <sub>x</sub> allocation, rounded to the nearest ton, after withholding 3% for new unit set-aside
2014 and Beyond SO <sub>2</sub> Allocation	2014 and thereafter SO <sub>2</sub> allocation, rounded to the nearest ton, after withholding 3% for new unit set-aside
Heat Input assumed in 2012 SO <sub>2</sub> Allocation	Heat input associated with emissions used in determining 2012-2013 SO <sub>2</sub> allocation
Heat Input assumed in 2014 and beyond SO <sub>2</sub> Allocation	Heat input associated with emissions used in determining 2014 and thereafter SO <sub>2</sub> allocation
Heat Input assumed in Annual NO <sub>x</sub> Allocation	Heat input associated with emissions used in determining annual NO <sub>x</sub> allocation
Heat Input assumed in Ozone Season NO <sub>x</sub> Allocation	Heat input associated with emissions used in determining ozone season NO <sub>x</sub> allocation
2012 SO <sub>2</sub> Rate (lbs/mmBtu)	2012-2013 allowable SO <sub>2</sub> emissions rate under Direct Control alternative remedy option
2014 SO <sub>2</sub> Rate (lbs/mmBtu)	2014 and thereafter allowable SO <sub>2</sub> emissions rate under Direct Control alternative remedy option
Annual NO <sub>x</sub> Rate (lbs/mmBtu)	Allowable annual NO <sub>x</sub> emissions rate under Direct Control alternative remedy option

State Budgets, Unit Allocations, and Unit Emissions Rates – Field Description

<b>Field Name</b>	<b>Description</b>
Ozone Season NO <sub>x</sub> Rate (lbs/mmBtu)	Allowable ozone season NO <sub>x</sub> emissions rate under Direct Control alternative remedy option