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**Acronyms:**

AMPD – Air Markets Program Data

ARP – Acid Rain Program

CAA – Clean Air Act

CAIR – Clean Air Interstate Rule

CAMD – Clean Air Markets Division

CBS – CAMD Business System

CFR – Code of Federal Regulations

CSAPR – Cross-State Air Pollution Rule

DR – Designated Representative

EPA – Environmental Protection Agency

FIP – Federal Implementation Plan

NBP – NO<sub>x</sub> Budget Trading Program

NO<sub>x</sub> – Nitrogen Oxides

NUSA – New Unit Set-Aside

OTC – Ozone Transport Commission

SIP – State Implementation Plan

SO<sub>2</sub> – Sulfur Dioxide

## Purpose

EPA's [Clean Air Markets Division \(CAMD\)](#) implements [allowance trading programs](#) that allow participants to independently determine their best compliance strategy to reduce emissions. Some of these programs have been federally adopted (e.g., Acid Rain Program, Texas SO<sub>2</sub>), some have been adopted by states (e.g., Ozone Transport Commission NO<sub>x</sub> Budget Program, NO<sub>x</sub> Budget Trading Program), and some have been a combination (e.g., Clean Air Interstate Rule, Cross State Air Pollution Rule).<sup>1</sup> This document provides a basic introduction to EPA's active and retired allowance trading programs and offers greater context to how allowances are distributed, traded and tracked.<sup>2</sup> Additionally, this document may serve as a companion to users exploring EPA's allowance trading program data, all of which is publicly available.

## Allowances & Allowance Trading

Allowance trading (also referred to as “emissions trading”) is a component of a [market-based cap-and-trade program](#), which reduces emissions by setting a total emissions limit and issuing allowances equal to that limit through allocation processes or auctions. An allowance is an authorization to emit a specified amount of a pollutant during a specified control (or compliance) period but does not constitute a property right.

- Participants must hold allowances equal to their reported emissions for a given period
  - In addition to the affected sources required to participate in the trading programs, any individual, corporation, or governing body may participate as well
  - Full details on monitoring and reporting requirements for emissions as regulated by 40 CFR part 75 can be found on CAMD's [emissions monitoring and reporting pages](#)
- All data under EPA's allowance trading programs is publicly available in the [Air Markets Program Data \(AMPD\) portal](#)

## What is an Allowance?

The following table includes all active and retired allowance trading programs with corresponding data in AMPD. Programs that record emissions data only are *not* included. A timeline of programs is found in the [progress reports](#).

**Table 1: Allowance Trading Programs**

Program	Program Code	Pollutant Allowance	Control Period
ARP SO <sub>2</sub>	ARP	1 ton of SO <sub>2</sub>	Annual
CSAPR NO <sub>x</sub> Ozone Season (Group 1/2)	CSOSG1/ CSOSG2	1 ton of NO <sub>x</sub>	Ozone Season †
CSAPR NO <sub>x</sub> Annual	CSNOX	1 ton of NO <sub>x</sub>	Annual
CSAPR SO <sub>2</sub> (Group 1/2)	CSSO2G1/ CSSO2G2	1 ton of SO <sub>2</sub>	Annual
Texas SO <sub>2</sub>	TXSO2	1 ton of SO <sub>2</sub>	Annual
CSAPR NO <sub>x</sub> Ozone Season*	CSNOXOS	1 ton of NO <sub>x</sub>	Ozone Season †
CAIR SO <sub>2</sub> *	CAIRSO2	1 ton of SO <sub>2</sub>	Annual

<sup>1</sup> To learn more about EPA's existing and retired allowance trading programs, visit <https://www.epa.gov/airmarkets/clean-air-markets-programs>

<sup>2</sup> Complete regulations for EPA's allowance trading programs can be found in 40 CFR parts 72-78 (ARP), 96 (NBP and CAIR state model rules) and 97 (CAIR federal rules, CSAPR, and Texas SO<sub>2</sub>).

<b>CAIR NO<sub>x</sub> Annual*</b>	CAIRNOX	1 ton of NO <sub>x</sub>	Annual
<b>CAIR NO<sub>x</sub> Ozone Season*</b>	CAIROS	1 ton of NO <sub>x</sub>	Ozone Season †
<b>NO<sub>x</sub> Budget Trading Program*</b>	NBP	1 ton of NO <sub>x</sub>	Ozone Season †
<b>Ozone Transport Commission NO<sub>x</sub> Budget Program*</b>	OTC	1 ton of NO <sub>x</sub>	Ozone Season †

† Ozone season under the programs is May 1 through September 30

\* Retired program

- Once issued, an allowance may be bought, sold, traded, or banked (held in an account for future use)
- Allowances are program and pollutant specific; generally, an allowance for one program may not be used for compliance in any other program (i.e. allowances for the CSAPR NO<sub>x</sub> annual program cannot be used for the CSAPR NO<sub>x</sub> ozone season program; or CSAPR SO<sub>2</sub> Group 1 & 2 allowances are not interchangeable)<sup>3</sup>
- Allowances generally permit the holder to emit one ton of emissions in a specific compliance period, or subsequent compliance period<sup>4</sup>

#### How are Allowances Identified?

- Each allowance is identified by a program code (Table 1), vintage year, and serial number
  - Program code: identifies the relevant program for that allowance
  - Vintage year: The earliest year an allowance is available for use in compliance
    - i.e. An allowance allocated for 2020 can be used for compliance in 2020 or any year after
  - Serial number: *program-specific* unique identifying number for each allowance

#### How are Allowances Tracked?

EPA maintains an allowance management system called the CAMD Business System (CBS), which is the official record for accounts and allowance holdings. An account in CBS is a prerequisite to holding and transferring allowances, as well as performing annual compliance tasks

- Each regulated facility must identify a Designated Representative (DR), who is authorized by the facility owners/operators to legally represent their compliance account
- A DR can represent more than one source

<sup>3</sup> *Exception:* The CAIR SO<sub>2</sub> trading program used ARP SO<sub>2</sub> allowances for compliance, albeit at a reduced rate for ARP SO<sub>2</sub> allowances issued after 2009. CAIR was replaced with CSAPR in 2015

*Exception:* In some cases when one program has been replaced by another, allowances banked under the original program have been exchanged for allowances useable under the new program, either for a full ton or a partial ton of emissions

<sup>4</sup> *Exception:* ARP SO<sub>2</sub> allowances issued for the 2010-2014 compliance periods and used for the CAIR SO<sub>2</sub> trading program represented 0.5 tons of emissions, rather than 1 ton of emissions. (ex.: a facility emitting 10 tons of SO<sub>2</sub> under the CAIR program would need 20 current-vintage ARP allowances for combined ARP/CAIR compliance)

*Exception:* In the NBP, banked allowances sometimes represented 0.5 tons of emissions, depending on the total quantities of banked allowances available and used for compliance through a mechanism known as “Flow Control” (See [NBP historical reports](#) for details)

## Allowance Account Types

**Table 2: Summary of Allowance Account Types**

Account Type	Definition
<b>Facility (Compliance)</b>	<ul style="list-style-type: none"><li>Established <i>only</i> by EPA to hold a participating facility's allowances</li><li>Receives initial allocated allowances each control period</li><li>Used in compliance</li><li>Prior to 2009, compliance accounts for some programs were established at the unit level instead of at the facility level</li></ul>
<b>General</b>	<ul style="list-style-type: none"><li>Account openable by any entity for holding and transferring allowances</li></ul>
<b>Reserve</b>	<ul style="list-style-type: none"><li>Special account established by EPA for certain EPA functions such as the allowance allocation, auction or new unit set-asides</li><li>Multiple subtypes of this account exist</li></ul>
<b>Surrender</b>	<ul style="list-style-type: none"><li>Special account established by EPA for EPA to retire allowances</li><li>Multiple subtypes of this account exist</li></ul>
<b>Other</b>	<ul style="list-style-type: none"><li>A variety of other account types may be encountered in AMPD, but will fall under one of the aforementioned categorizations (i.e. "State Reserve" = Reserve type) See Appendix I for a complete list</li></ul>

## Types of Allowance Transactions

Allowances can be acquired through multiple channels including initial allocations, new unit set-aside (NUSA) allocations, auction, direct purchase from an allowance holder, or other less common transactions, each of which is identified with a transaction type.

### Initial Allocations

- Initial allocations are allowances allocated by EPA to participating sources on an annual basis as specified in rulemaking at the federal or state level.
  - ARP initial allocations are provided to sources 30 years in advance, meaning allowances with future vintage years are available but may not be used for compliance until that particular vintage year
  - CSAPR initial allocations are provided to sources four years in advance under original federal implementation plans (FIP) as a state budget, however, states with an approved state implementation plan (SIP) may use an alternative method to allocate those allowances, in an amount equal to the state budget

### New Unit Set-Aside (NUSA) Allocations

- Under CSAPR programs only, new unit set-aside allowances are made available to newly affected sources including those located in Indian country. A pool of allowances is created in each state that is at least two percent of the state's total budget for a specific program. New units, those not identified in the original rulemaking and not receiving initial allocations, are eligible for allocations from this pool based on their previous year emissions

### Auction

- Under the ARP, 250,000 allowances are auctioned off to the highest bidders each year. 125,000 are available for use in the year purchased and the other 125,000 have a vintage year seven years in the future

### Private Transfer

- Allowances can be directly acquired from a broker or any entity that holds them, which is classified as a Private Transfer or Private Trade
- EPA publishes data on the number of transactions and allowances traded in each trading program in the progress reports
- Data are also available from analytics firms to track allowance market prices

### Other Transactions

- AMPD displays additional transaction types for all current and retired programs (see full list in Appendix II)

## How is an Allowance Transaction Recorded?

- CBS is the electronic system for processing transactions where EPA receives details of the proposed transfer and an authorized transferor representative's (e.g., designated representative) approval
- Each transaction has a unique transaction ID and is stored in the CAMD database and accessible through AMPD. The data recorded for each transaction include the total number of allowances transferred (transaction total), information about those allowances (i.e., vintage, block grouping), and accounts involved (Figure 3)
  - Block total: the difference between the start and end allowance serial numbers in a block (or group) of allowances
- All allowance transfers must be submitted by midnight (or the following business day if not a business day) of the control period's Allowance Transfer Deadline for recordation if they are to be used for compliance in that control period
- The deadline is generally 60 days after the end of the year of the control period

## How are Allowances Relevant in Compliance?

- CAMD conducts annual allowance reconciliation to ensure compliance
- Compliance is performed at the facility level. For each facility, CAMD will deduct allowances from the respective compliance account reconciling the facility's reported emissions in the control period
  - Deducted or "used" allowances are removed from circulation and maintained indefinitely in various types of surrender accounts
- A facility must hold allowances in its compliance account equivalent to that facility's reported emissions<sup>5</sup>
- Allowances are deducted on a "First-in, First-out" basis where allowances are first deducted by their earliest vintage year, unless a facility requests otherwise, before the control period's Allowance Transfer Deadline
- A facility may bank unused allowances for future control periods if they are able to reduce their annual emissions below their emissions budget. Allowances may be banked (or held) indefinitely

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<sup>5</sup> A facility's compliance emissions value is the sum of tons of each unit's reported emissions rounded to the nearest whole number based on conventional rounding procedures. (i.e., a unit with 24.5 tons of emissions would need 25 allowances for compliance). Due to rounding at the unit level, a facility's compliance value may differ from total reported emissions

## What are the Penalties Associated with Excess Emissions?

If a given facility fails to hold sufficient allowances to cover emissions, there may be either automatic financial and/or allowance surrender penalties.

### ARP Penalty

- Under ARP, there is a \$2,000/ton penalty for excess emissions of sulfur dioxide and for excess emissions of nitrogen oxides, which is adjusted for inflation based on the penalty year's Consumer Price Index (CPI)
- Facilities have 30 days upon receiving notice from EPA to pay the penalty, after which interest will accrue on the penalty

### CSAPR Penalties

- Under CSAPR, a source whose emissions exceed the allowances held in its compliance account as of the allowance transfer deadline will be required to surrender additional allowances equal to two times the number of tons of excess emissions<sup>6</sup>
  - I.e., if a source's excess emissions are 10 tons of NO<sub>x</sub> the source would need to surrender 20 NO<sub>x</sub> allowances
- If a state's emissions exceed its assurance level, for every ton of excess emissions two extra allowances must be surrendered, in addition to the usual one allowance per ton
  - A state's assurance level is the sum of the state's trading budget plus its variability limit
  - Failure to hold the required allowances in an assurance account by the designated deadline is also a violation of the CAA and subject to potential penalties<sup>7</sup>

## What Happens to a Retired Unit's Allowances?

- Once a unit is permanently retired, it will no longer be subject to most requirements of the trading programs. However, it may still participate in allowance trading and may continue to receive allowances
- ARP: A unit will become exempt from most ARP provisions on January 1 of the first full calendar year that it is permanently retired
  - The unit *will continue* to receive allowance allocations according to the ARP SO<sub>2</sub> Allowance system
- CSAPR: A unit will become exempt from most CSAPR provisions on the date that it permanently retires
  - Within 30 days of the permanent retirement, the DR must notify EPA that the unit has been permanently retired and follow certain provisions
  - An existing unit that does not operate for two consecutive control periods will stop receiving an initial allocation in the fifth year of ceased operation. Those allowances will be added to the new unit set-aside pool for that unit's particular state

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<sup>6</sup> Excess emissions may also be subject to other penalties under the Clean Air Act (CAA). Each ton of excess emissions and each day of the control period of excess emissions constitutes a separate Clean Air Act (CAA) violation

<sup>7</sup> For more information, see the [CSAPR Assurance Provision webpage](#)

## How can I Access Allowance Data?

- Allowance data, including details on allowance accounts and transactions, are available through the [AMPD](#) portal on the [CAMD webpage](#)
- Users of AMPD can access current and historical data on allowance details, allowance transactions, reported emissions, compliance and facility attributes. The data:
  - May be aggregated at various levels (i.e., facility or state)
  - Are available through user-created queries, prepackaged data downloads, or through pre-defined reports
- Data collected through a query or prepackaged format are supplied in an Excel spreadsheet and may contain multiple sheets depending on how many reports are generated. Examples are provided below
- AMPD's "About" section contains a brief video tutorial on how to use the portal to access data through one of the three previously mentioned formats

### Allowance Details

- Figure 1 displays pertinent data from an "Allowance Details" report in AMPD

	A	B	C	D	E	F	G	H	I	J
	Program	Account Number	Account Name	Owner	Representative (Primary)	Account Type	Allowance Vintage Year	Serial Number Start	Serial Number End	Block Totals
1	CSOSG1	000703FACILITY	Bowen	Georgia Power Company (Operator) Georgia Power Company (Owner)	Jason K Reynolds (608760)	Facility Account	2015	12861	13156	296
2	CSOSG1	000703FACILITY	Bowen	Georgia Power Company (Operator) Georgia Power Company (Owner)	Jason K Reynolds (608760)	Facility Account	2015	13157	14580	1424
3	CSOSG1	000703FACILITY	Bowen	Georgia Power Company (Operator) Georgia Power Company (Owner)	Jason K Reynolds (608760)	Facility Account	2016	16341	16450	110
4	CSOSG1	000703FACILITY	Bowen	Georgia Power Company (Operator) Georgia Power Company (Owner)	Jason K Reynolds (608760)	Facility Account	2016	16451	17253	803
5	CSOSG1	000708FACILITY	Hammond	Georgia Power Company (Operator) Georgia Power Company (Owner)	Jason K Reynolds (608760)	Facility Account	2015	74658	75530	873

Figure 1: Allowance blocks are tracked by the account they belong to and may be owned by more than one entity.

- Single allowances can also be tracked in an "Allowance History" report by the serial number

	A	B	C	D	E	F	G	H	I	J	K	L
	Program	Allowance Vintage Year	Transaction Date	Transaction ID	Serial Number Start	Serial Number End	Block Totals	Account Name (Transferor)	Account Number (Transferor)	Account Name (Transferee)	Account Number (Transferee)	Transaction Type
1	ARP	2010	3/23/1993	1	1	200000	200000	Allowances Subject to Emissions Cap	15	Auction Reserve	1	Initial Allocation
2	ARP	2010	4/3/2003	65137	110001	125000	15000	Auction Reserve	1	Ohio Power Company	999900000257	Purchase at EPA Auction
3	ARP	2010	8/11/2003	73084	120349	125000	4652	Ohio Power Company	999900000257	Appalachian Power Company	999900000261	Private Transfer
4	ARP	2010	1/7/2011	161594	120349	125000	4652	Appalachian Power Company	999900000261	Indiana Michigan Power Company	999900000260	Private Transfer
5	ARP	2010	2/11/2011	162233	120349	125000	4652	Indiana Michigan Power Company	999900000260	Rockport	006166FACILITY	Private Transfer
6	ARP	2010	5/4/2011	163746	120349	125000	4652	Rockport	006166FACILITY	Retirement Deductions	39	Emissions Deduction

Figure 2: A single allowance, serial #123456 of vintage 2010, was tracked in the ARP program displaying all its transactions. Note that it was not transferred individually, but with different blocks of allowances.

### Allowance Transactions

- A single transaction may have multiple lines in a report due to the grouping of allowances into blocks
- E.g., in Figure 3, transaction 258 is shown on two lines where a total of 21 allowances (column c) were transferred. The first line indicates a sequential block of 11 allowances (column k), while the second line represents a second block of the remaining 10 allowances



	A	B	C	D	E	F	G	H	I	J	K
1	Program	Transaction ID	Transaction Total	Transaction Type	Account Name (Transferor)	Account Name (Transferee)	Transaction Date	Allowance	Serial Number Start	Serial Number End	Block Totals
2	CSOSG1	258	21	Private Transfer	Wansley (6052)	Dalton Utilities	6/15/2017	2017	12171	12181	11
3	CSOSG1	258	21	Private Transfer	Wansley (6052)	Dalton Utilities	6/15/2017	2017	12929	12938	10
4	CSOSG1	257	58	Private Transfer	Scherer	Dalton Utilities	6/15/2017	2017	14558	14586	29
5	CSOSG1	257	58	Private Transfer	Scherer	Dalton Utilities	6/15/2017	2017	16608	16636	29
6	CSOSG1	874	21	Private Transfer	Wansley (6052)	Dalton Utilities	2/12/2019	2018	12747	12767	21

Figure 3: Allowance transaction report from AMPD. Account numbers and other fields not shown.

### Allowance Reports & Prepackaged Sets

- Numerous data outputs can be downloaded through the reporting and prepackaged data sections of AMPD. Prepackaged datasets include Allowance Transactions by program and year, Allowance holdings by Account, Compliance data by program and year, and other associated emissions data by different reporting frequencies. Various pre-defined reporting functions exist under the “Reports” section in AMPD.

## APPENDIX I: Complete List of Allowance Account Types

Account Type	Definition	Programs
<b>Facility Account</b>	Account established to hold a participating facility's allowances used in compliance and to receive initial allowance allocations each control period	ARP (since 2006), CAIR, CSAPR, TXSO2
<b>General Account<sup>1</sup></b>	Account that may be opened by any entity for holding and transferring allowances	ARP, CAIR, CSAPR, NBP, OTC, TXSO2
<b>New Unit Set-Aside Reserve Account</b>	Reserve account that holds allowances available for allocation to new units in CSAPR trading programs	CSAPR
<b>Overdraft Account</b>	A type of account established to assist with facility-level compliance in programs where compliance was determined at the unit level rather than the facility level	NBP, OTC
<b>Reserve Account<sup>2</sup></b>	A type of account generally used to hold allowances available for allocation	ARP, CAIR, CSAPR, NBP, OTC, TXSO2
<b>State Holding Account</b>	A type of account specific to a state for holding allowances available for allocation such as (new unit) set-asides or allowances for programs being terminated (i.e. NBP)	ARP, CAIR, CSAPR, NBP, OTC
<b>Surrender Account</b>	Special account established by EPA for retiring allowances from compliance, penalties or a program termination	ARP, CAIR, CSAPR, NBP, OTC, TXSO2
<b>Unit Account</b>	Account established to hold a participating unit's allowances used in compliance and to receive initial allowance allocations each control period in programs where compliance was determined at the unit level rather than the facility level.	ARP (through 2005), NBP, OTC

<sup>1</sup>General Account information for OTC cannot be queried in the database. However, there are still records of allowance transactions involving those accounts which can be queried.

<sup>2</sup>Many variations of this account type exist, such as state-specific reserve accounts. ARP also uses this type of account for compliance emissions deductions as opposed to all other programs which use surrender accounts. ARP uses surrender accounts for enforcement and voluntary surrender actions.

## APPENDIX II: Complete List of Allowance Transaction Types

Transaction Type	Definition	Programs
<b>CAIROS Transfer from NBP</b>	Issuance of CAIROS allowances converted from NBP allowances during program transition for certain states	CAIR
<b>CSAPR Ozone Season Emissions Adjustment Deduction</b>	Deduction adjustment based on adjusted emissions data	CSAPR
<b>Conservation Issuance</b>	Allocation of allowances for energy conservation programs	ARP
<b>Conversion of NBP allowances into CAIROS</b>	Issuance of CAIROS allowances converted from NBP allowances during program transition	CAIR
<b>Deduction of Loaned Allowances</b>	Deduction for compliance of allowances transferred from another unit at the same source after the Allowance Transfer Deadline	ARP
<b>Distribute Allowances for New Program</b>	Allocation of revintaged CSAPR NO <sub>x</sub> ozone season allowances to Group 1 facilities after the CSAPR Update	CSAPR
<b>Distribute Revintaged Allowances</b>	Allocation of revintaged CSAPR NO <sub>x</sub> ozone season allowances to Group 2 facilities after the CSAPR Update or allocation of revintaged CSAPR allowances after the stay of original CSAPR was lifted	CSAPR
<b>Early Reduction Allocation</b>	Allocation from the Compliance Supplement Pool for eligible units that reduced their NO <sub>x</sub> emission rate under criteria in SIPs	NBP
<b>Early Reduction Issuance</b>	Allocation for voluntary early SO <sub>2</sub> reductions or early NO <sub>x</sub> reductions	ARP, CAIR
<b>Emissions Adjustment Deduction</b>	Deduction adjustment based on adjusted emissions data	ARP, CSAPR, CAIR
<b>Emissions Deduction</b>	Deduction from a source's compliance account to account for a source's control period emissions	ARP, CSAPR, CAIR, NBP
<b>Energy Biomass Issuance</b>	Allocation for renewable energy generation under	ARP
<b>Energy Geothermal Issuance</b>	Allocation for renewable energy generation under	ARP
<b>Energy Solar Issuance</b>	Allocation for renewable energy generation under	ARP
<b>Energy Wind Issuance</b>	Allocation for renewable energy generation under	ARP
<b>Enforcement Surrender<sup>1</sup></b>	Surrender of allowances pursuant to enforcement actions outside the trading program	ARP, CSAPR, CAIR
<b>Error Correction</b>	Transfer to remedy an incorrect transfer in the allowance tracking system	ARP, CAIR, NBP
<b>Error Reversal</b>	Transfer to reverse a previous allowance transfer; this must occur before an error correction takes places	ARP, CSAPR, CAIR, NBP, OTC
<b>Initial Allocation</b>	Allocation to participating sources on an annual basis in an amount determined through EPA rulemaking	ARP, CSAPR, CAIR, NBP, OTC

<b>Internal Transfer to Reduce Offset</b>	Transfer of allowances between unit accounts at the same facility after the Allowance Transfer Deadline; this must occur before deduction of loaned allowances	ARP
<b>July Confirmation Credit</b>	Deduction adjustment based on a submitted confirmation report under a Phase I reduced utilization plan	ARP
<b>July Confirmation Deduction</b>	Deduction adjustment based on a submitted confirmation report under a Phase I reduced utilization plan	ARP
<b>NBP Additional Emissions Deduction from CAIROS Account</b>	Deduction from CAIROS account for NBP emissions adjustment in year prior to program transition	CAIR
<b>NBP Penalty Deduction from CAIROS Account</b>	Penalty deduction from CAIROS account for NBP penalty in year prior to program transition	CAIR
<b>New Unit Set-Aside Allocation</b>	Allocation to newly affected CSAPR sources (including those located in Indian country) that did not receive initial allocations	CSAPR
<b>Offset/Penalty Deduction</b>	Allowance deduction in the case of excess emissions	ARP, CSAPR, CAIR
<b>Opt-In Allocation</b>	Allocation to units that have opted into a trading program	ARP, NBP, OTC
<b>Opt-in Transfer to Replacement Unit</b>	Transfer from a retired opt-in source's account to a replacement unit's account	ARP
<b>Other Reserve Allocation</b>	Allocation of allowances from the Texas SO <sub>2</sub> Supplemental Allowance Pool	TXSO <sub>2</sub>
<b>Penalty Deduction</b>	Deduction of allowances from a unit account as a result of excess emissions for a given control period	NBP, OTC
<b>Phase 1 Extension Issuance</b>	Allocation to units awarded allowances for installation of qualifying Phase I technology	ARP
<b>Phase 1 Extension Projected Emission Deduction</b>	Deduction adjustment to correct for differences between actual and projected emissions at units awarded allowances for installation of qualifying Phase I technology	ARP
<b>Phase 2 Early Reduction Payback</b>	Surrender of later-vintage allowances in exchange for earlier-vintage allowances issued for Phase 2 early reductions	ARP
<b>Private Trade</b>	Private transaction between any general, facility or unit accounts not part of initial/special allocations or compliance/surrender	NBP, OTC
<b>Private Transfer</b>	Private transaction between any general, facility or unit accounts not part of initial/special allocations or compliance/surrender	ARP, CSAPR, CAIR
<b>Purchase at EPA Auction</b>	Purchase of allowances from the Acid Rain Program auction	ARP
<b>Purchase at Private Auction</b>	Transfer of allowances purchased at a private auction	ARP
<b>Reallocation Surrender</b>	Reallocation of allowances among units based on final Phase 2 allocation rule	ARP

<b>Reallocation Transfer</b>	Reallocation of allowances among units based on final Phase 2 allocation rule	ARP
<b>Reduced Utilization Issuance</b>	Allocation of allowances to a source that has an approved phase I reduced utilization plan	ARP
<b>Reduced Utilization Payback</b>	Surrender of later-vintage allowances in exchange for extra earlier-vintage allowances issued under a phase I reduced utilization plan	ARP
<b>Reduced Utilization Termination</b>	Surrender of allowances allocated under an approved phase I reduced utilization plan upon its termination	ARP
<b>Remove for Reissuance</b>	Deduction of banked 2015/2016 CSAPR NO <sub>x</sub> ozone season allowances to be revintaged to 2017 under the CSAPR Update or deduction of CSAPR allowances to be revintaged after lifting of the CSAPR stay	CSAPR
<b>Return of CAIR Allowances</b>	Restoration of allowances previously deducted for sunseting of CAIR after the stay of CSAPR	CAIR
<b>Return of unused allowances from the Conservation and Renewable Energy Reserve</b>	Return of unused allowances from a reserve to units from which allowances were initially withheld to establish the reserve	ARP
<b>Reverse Substitution Payback</b>	Reversal of a substitution payback transaction following termination of a substitution plan	ARP
<b>Small Diesel Issuance</b>	Allocations of allowances to subsidize small diesel refineries participating in fuel desulfurization activities	ARP
<b>State Cap Deduction</b>	Surrender of allowances allocated to a unit covered by a substitution or reduced utilization plan in order to account for limits imposed by a pre-1990 Clean Air Act Amendments (CAAA) multi-unit state emissions cap	ARP
<b>State Cap Issuance</b>	Issuance of extra current-vintage allowances to satisfy a deduction requirement for a unit covered by a substitution or reduced utilization plan and subject to a pre-CAAA multi-unit state emissions cap	ARP
<b>State Cap Payback</b>	Surrender of later-vintage allowances in exchange for extra earlier-vintage allowances issued to satisfy a deduction requirement for a unit covered by a substitution or reduced utilization plan and subject to a pre-CAAA multi-unit state emissions cap	ARP
<b>State Reallocation</b>	Reallocation by a state to a compliance account or general account of allowances initially allocated by EPA to a state-governed set-aside account	CAIR, NBP, OTC

<b>Substitution Control by Contract Deduction</b>	Deduction for exceedance of the allowed maximum emission rate for a unit in a substitution plan establishing common control by contract instead of by ownership	ARP
<b>Substitution Issuance</b>	Allocation to a unit defined as a substitution unit under an approved Phase I substitution plan	ARP
<b>Substitution Payback</b>	Surrender of later-vintage allowances in exchange for extra earlier-vintage allowances issued under a substitution plan	ARP
<b>Substitution Termination</b>	Surrender of allowances issued under a substitution plan after the termination of said plan	ARP
<b>Takeback for Underutilization</b>	Allocation adjustment for new units to account for differences between actual and projected utilization	NBP
<b>Terminate NO<sub>x</sub> Budget Programs Allowances<sup>2</sup></b>	Surrender of NBP allowances issued as early reduction credits that were not used for compliance in the first two program years	NBP, OTC
<b>Terminate State Program Allowances</b>	Transfer into a temporary holding account of ARP allowances held by non-ARP sources for use in the former CAIR SO <sub>2</sub> program	ARP, CAIR
<b>Terminate to CAIROS</b>	Removal of remaining NBP allowances for conversion to CAIROS allowances during program transition for certain states	NBP
<b>Termination of NBP allowances into CAIROS</b>	Removal of remaining NBP allowances for conversion to CAIROS allowances during program transition	NBP
<b>Transfer from Legacy System</b>	Transfer from a legacy unit account to a facility account	ARP
<b>Underutilization Deduction</b>	Deduction for underutilization of a Phase I unit to account for generation and emissions shifted to Phase II units	ARP
<b>Voluntary Surrender</b>	Surrender of allowances by a source or other allowance holder for reasons other than program compliance or enforcement	ARP, CSAPR, CAIR

<sup>1</sup>This transaction type has also been used to retire allowances that were allocated to units incorrectly identified as affected units.

<sup>2</sup>This transaction type has also been used to terminate banked OTC allowances during the transition to NBP