

Technical Support Document (TSD)  
for the Proposed Federal Implementation Plan Addressing Regional Ozone Transport for the 2015 Ozone  
National Ambient Air Quality Standard  
EPA-HQ-OAR-2021-0668

# Allowance Allocation under the Proposed Rule TSD

U.S Environmental Protection Agency

Office of Air and Radiation

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## **Allowance Allocation to Existing and New Units under the Proposed Federal Implementation Plan (FIP)**

This Technical Support Document (TSD) provides information that supports EPA’s determination of unit-level allocations for existing and new units under the proposed Rule. Section VII.B.4 of the preamble discusses state budgets, and section VII.B.9 discusses how quantities of allowances equal to the budgets are apportioned (i.e., allocated) among existing and new units under the FIP program structure. This TSD provides additional information in support of unit-level allocations and elaborates on the data and methodology used to arrive at the allocations. The TSD is organized as follows:

- 1) Overview
- 2) New Unit Set-Asides and Allocations
- 3) Allocation Methodology for Existing Units
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  - b. Data and Calculations
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  - d. Allocations of Prorated Allowances to Existing Units
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EPA anticipates that some states may choose to submit State Implementation Plans (SIPs) with revised unit-level allocations to existing units that would replace those defined in the FIP. Section VII.D of the preamble explains when and how states may replace the FIP allocations for vintage year 2024 or later through specific SIP procedures.

### **1. Overview**

As discussed in preamble section VII.B, each state’s budget for each “control period” (i.e., the May-September ozone season) is comprised of the emissions that EPA estimates would remain in that control period after the state has implemented control stringency measures required to eliminate its significant contribution to nonattainment and interference with maintenance of the relevant National Ambient Air Quality Standards (NAAQS) in downwind states during the control period. EPA proposed the rule with a limited interstate trading program. Emission allowances are used in the implementation of this program. Specifically, EPA creates one allowance for each ton of emissions allowed in each control period under each state’s emission budget. Each allowance has a “vintage” year, which is the year of the control period for which the allowance is issued. Covered sources are required to submit one such allowance for each ton of the relevant pollutant emitted during the control period (and additional allowances when emissions exceed certain thresholds, as explained further in preamble sections VII.B.1, VII.B.5, and VII.B.7). To implement the programs, allowances are initially allocated among covered sources within a state.

As discussed in the preamble, under the FIP, EPA allocates allowances to sources in the state equal to that state’s total budget for each control period. The methodology used to determine states’ budgets is independent of and not affected by the methodology used to determine initial allowance allocations. In other words, initial allowance allocations in no way impact the state budget. The state budgets, described

in section VII.B.4, are determined independently through application in each control period of the control stringency measures identified in the multi-factor analysis outlined in section VI of the preamble. Regardless of the methodology used by EPA or a state to allocate allowances to sources within the state, emissions in each covered state (commensurate with the emission reduction potential in each control period from the mitigation measures selected in the multi-factor test) that significantly contribute to nonattainment or interfere with maintenance in another state will be prohibited. In sum, the allocation methodology has no impact on the rule's ability to satisfy the statutory mandate of CAA section 110(a)(2)(D)(i)(I) to eliminate significant contribution and interference with maintenance in downwind states.

As discussed in section VII.B.9 of the preamble, under the FIPs, EPA will distribute the entire budget to units located in the state subject to the FIP. However, this budget would first be divided into two different portions listed below (note, amounts vary by state):

- 1) New unit set-aside (NUSA)
- 2) Existing unit portion of budget (including Indian country existing units)

Under previous CSAPR rules, where the state emissions budgets and unit-level allocations to most “existing” units were computed in the rulemaking for all future control periods, EPA defined a fixed date for commencement of operations that divided the units considered “existing” and the units considered “new” for purposes of determining whether the units would receive their allowance allocations under the relevant trading program from a portion of each budget set aside for new units or from the larger portion of the budget that is not set aside. As discussed in sections VII.B.1 and VII.B.4 of the preamble, in this rulemaking, EPA is proposing to compute the amounts of the state emissions budgets under the revised CSAPR NO<sub>x</sub> Ozone Season Group 3 Trading Program (the “Group 3 trading program”) for each control period using a methodology that reflects control stringencies and emissions rates as finalized in the rulemaking for all future control periods, but that also reflects fleet composition and heat input data from the most recently reported complete control period – for example, the emissions budgets for the 2025 control period would reflect heat input data reported for the 2023 control period, the emissions budgets for the 2026 control period would reflect heat input reported for the 2024 control period, and so on. (An exception is that the emissions budgets for the 2023 and 2024 control periods would be preset in the rulemaking and would both be based on the reported heat input for the latest control period available for use in the rulemaking process, which is proposed to be the 2021 control period.)

To coordinate with the proposed approach for determining the state emissions budgets for the revised Group 3 trading program, there would no longer be a fixed dividing line for this trading program that defines whether a unit is “existing” or “new” for purposes of determining which portion of the budget the unit's allowances are allocated from. Instead, any unit whose heat input was used in computing the state emissions budget for a particular control period would be considered an “existing” unit for that control period and would receive its allocation (if any) from the main portion of the budget, and any unit that operated and was subject to allowance holding requirements during the control period<sup>1</sup> but whose heat

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<sup>1</sup> Under the CSAPR trading program regulations, units that do not already have monitoring systems certified for use under 40 CFR part 75 are generally required to complete certification of their emissions monitoring systems and begin reporting emissions data to EPA by 180 days after they commence commercial operation. Units are not subject to allowance holding requirements until their monitor certification deadlines.

input was not included in the heat input used to compute the state emissions budget for the control period would be eligible to receive an allocation from a new unit set-aside for that control period. (This proposed change in approach to defining whether a unit is considered “existing” or “new” would apply only to the Group 3 trading program, not to any other CSAPR trading programs.)

The portion of the state emissions budget for each control period not set aside for potential allocation to new units (86% to 98% of the total budget, depending on the state and control period) would be distributed among the state’s “existing” units for the control period in advance of the control period for which the allowances are issued. The remaining amount would be held back for “new” units for that control period in NUSA accounts and would be distributed after the end of the control period but before the compliance deadline for the control period. If any of the NUSA allowances are not allocated to qualifying “new” units, then the allowances would be allocated to “existing” units on the same basis as the main portion of the budget initially allocated to “existing” units so the allowances will be available to existing units for compliance in the control period.

The proposed rule identifies potentially covered existing units under the rule for the 2023 and 2024 control periods and the allocations for each of those units under the FIP for those control periods. This TSD details how the list of existing units was determined, how the allocations were calculated, and how the quantity of allowance set-asides for new units were determined. Following these descriptions, an appendix shows each affected EGU’s allocation under the proposed FIP for the 2023 and 2024 control periods along with the underlying data and calculations used to derive the allocations.

## **2) New Unit Set Asides and Allocations**

The new unit set-aside for ozone season NO<sub>x</sub> for each state is a percentage of the state’s total budget. This percentage is the sum of a “base” percentage that all states receive for “potential” new units and, for the 2023 and 2024 control periods only, a state-specific percentage reflecting emissions from “planned” units. For purposes of this document, the “potential” units on which the new source set-aside base percentage relies are those units that are projected new builds in future years. In other words, they are units that do not show up in the modeling input but do show up in the modeling output. “Planned” units, on which the state-specific percentage of the new source set-aside is based for the 2023 and 2024 control periods, are those units that are already identified in the modeling input because they are specific plants that are already built or are under construction, but that commence commercial operation on or after January 1, 2021. Because the location of these “planned” units is already known and identified in the modeling input, the portion of the new unit set-aside corresponding to these units is state-specific.

In the proposal, EPA has determined to use the same base percentage of the new unit set-aside of 2% established in the original Cross State Air Pollution Rule finalized in 2011, the CSAPR Update Rule finalized in 2016, and the Revised CSAPR Update finalized in 2021. EPA identified the 2% value as a reasonable set-aside for potential new units as it reflected the high end of state-level emissions from projected – or potential – new units. EPA determined that this 2% level was reasonable for the proposal as well. By selecting the high-end percentage, EPA chose a conservative envelope that would provide a pool of new unit set-aside allowances large enough to cover emissions from “potential” new units in states. EPA chose this basis in order to preserve a reasonable amount of allowances for new unit allocations in every state, as new units may not be sited in the same locations that EPA’s modeling assumes for analytical purposes.

The “state-specific” percentage for the 2023 and 2024 control periods represents the share of each state budget that EPA projects to be emitted from “planned” units in 2024. As discussed previously,

determining the state-specific percentage is necessary given the new unit definition used in the proposed rule. EPA is determining a state-specific percentage for projected emissions from “planned” units because unlike the location of new capacity that the model projects to be built, the location of planned units is already known.

Under the existing CSAPR Update trading program, EPA has already approved a SIP revision for one state – New York – that reflects a state preference to set aside 5% of the budget for the NUSA rather than the amount that EPA would have allocated under the CSAPR Update FIP. For purposes of this proposed rule for the 2023 and 2024 control periods, EPA intends to replicate individual states’ allocation preferences to the extent practicable where those preferences are known from prior SIP revisions. Accordingly, for New York EPA proposes to set aside 5% of each budget for new units in the same manner as for other states.

For control periods in 2025 and later years, EPA proposes to allocate a total of 2% of each state emissions budget to a new unit set-aside, with no additional amount for planned new units. The purpose of the proposed change to the procedure for establishing the amounts of the set-asides is to coordinate with the dynamic budget-setting process that would also become effective as of the 2025 control period. By the 2025 control period, all or almost all units that commence commercial operation before issuance of a final rule in this rulemaking would be considered “existing” units for purposes of budget-setting and allocations, and units commencing commercial operation after issuance of a final rule generally would be considered “existing” units for all but their first two full control periods of operation (and possibly a preceding partial control period). Given that new units would not be relying on the new unit set-asides as a permanent source of allowances, as is the case for “new” units under the other CSAPR trading programs, EPA believes set-asides that do not include any increment for “planned” new units would be sufficient.

The base and state-specific percentages were added for each state to determine the size of that state’s proposed new-unit set asides for the 2023 and 2024 control periods, which are shown in Tables 1A and 1B below.

**Table 1A: 2023 Proposed Budgets and New Unit Set-Asides (NUSA)**

<b>State</b>	<b>State emission budgets (tons)</b>	<b>NUSA for new units (tons)</b>	<b>Portion set aside for new units (%)</b>
Alabama	6,364	3	191
Arkansas	8,889	2	178
Delaware	384	14	54
Illinois	7,364	5	368
Indiana	11,151	2	223
Kentucky	11,640	2	233
Louisiana	9,312	2	186
Maryland	1,187	2	24
Michigan	10,718	4	429
Minnesota	3,921	2	78
Mississippi	5,024	2	100
Missouri	11,857	2	237
Nevada	2,280	6	137
New Jersey	799	2	16
New York	3,763	5	188
Ohio	8,369	5	418

Oklahoma	10,265	2	205
Pennsylvania	8,855	3	266
Tennessee	4,234	2	85
Texas	38,284	2	766
Utah	14,981	3	449
Virginia	3,090	5	155
West Virginia	12,478	2	250
Wisconsin	5,963	2	119
Wyoming	9,125	3	274

**Table 1B: 2024 Proposed Budgets and New Unit Set-Asides (NUSA)**

<b>State</b>	<b>State emission budgets (tons)</b>	<b>NUSA for new units (tons)</b>	<b>Portion set aside for new units (%)</b>
Alabama	6,306	3	189
Arkansas	8,889	2	178
Delaware	434	14	61
Illinois	7,463	5	373
Indiana	9,391	2	188
Kentucky	11,640	2	233
Louisiana	9,312	2	186
Maryland	1,187	2	24
Michigan	10,718	4	429
Minnesota	3,921	2	78
Mississippi	4,400	2	88
Missouri	11,857	2	237
Nevada	2,372	6	142
New Jersey	799	2	16
New York	3,763	5	188
Ohio	8,369	5	418
Oklahoma	9,573	2	191
Pennsylvania	8,855	3	266
Tennessee	4,234	2	85
Texas	38,284	2	766
Utah	15,146	3	454
Virginia	2,814	5	141
West Virginia	12,478	2	250
Wisconsin	5,057	2	101
Wyoming	8,573	3	257

For each control period, any allowances remaining in a state's new unit set-aside (after allocations are made to new units in accordance with the proposed regulations) are distributed to the

existing units in that state in proportion to the existing units' original allocations. This ensures that total allocations to units in the state are equal to the state budget in that year.

New units are allocated allowances from the set-aside accounts described above. Under the proposed rule, EPA will allocate allowances from the new unit set-asides after the end of each control period but before the allowance transfer deadline for the control period (i.e., the date when each unit must hold allowances at least equal to its emissions during the control period). Allowances will be allocated among the eligible units in proportion to the units' emissions during the control period, up to the amounts of those emissions. Any unallocated allowances in the new unit set-aside for a control period will be allocated to existing units in proportion to their share of the existing-unit allocations for that control period.

### **3) Allocation Methodology for Existing Units**

The allocation methodology bases a unit's allocation on the unit's historical heat input but limits any unit's allocation to its historical maximum emissions. Implementation of this methodology involves identifying potentially covered units and determining appropriate data baselines for each unit. To develop the proposed unit-level allocations for the 2023 and 2024 control periods, EPA first identified the list of potential covered units. Next, EPA compiled reported data on each unit and calculated its share of heat input. Both stages are described below.

EPA notes that this procedure would be used to determine default allocations and that states would generally have the ability to replace the default allocations with state-determined allocations starting with the 2024 control period. However, a state would not have the ability to replace the default allocations for any units in areas of Indian country within the state's borders not subject to the state's SIP authority. For any such area of Indian country, EPA would establish an "Indian country existing unit set-aside" containing the default allocations of allowances determined using the procedure below. The state could replace the default allocations for other units (assuming the total of the state-determined allocations for those units does not exceed the total of the default allocations for those units), but the state could not replace the default allocations for the units covered by an Indian country existing unit set-aside. See Section VII.B.9.a of the preamble for further discussion of the proposal to establish Indian country existing unit set-asides.

#### **a) Units Eligible to Receive Allocations as Existing Units**

The set of units covered by the trading program established in the proposed rule is based on the existing applicability criteria in 40 CFR 97.1004 of the Group 3 trading program regulations, as discussed in section VII.B.3 of the preamble. Note that because the applicability criteria are the same criteria used in the CSAPR Update and the Revised CSAPR Update, the inventory of units under the rule would be the same inventory of units currently reporting under these trading programs for the states covered under the rule; however, many units that were considered new units under these two rules would be considered existing units under the proposal. As EPA used the same applicability criteria in this proposed rule as those used in the CSAPR Update and the Revised CSAPR Update to identify potential existing units, EPA relied on data reported to EPA indicating which units were covered under CSAPR Update and the Revised CSAPR Update. For purposes of the proposed rule, existing units for purposes of allocations for the 2023 and 2024 control periods are units that are covered under these criteria and that commenced commercial operation prior to January 1, 2021. This cutoff date is used in the definition of existing unit because it assures that at least one full ozone season of historical data will be available to determine each existing unit's allocation in the final rule. In states new to the CSAPR program, a small number of additional units are also included that may meet the CSAPR applicability criteria, but which were not already reporting under other trading programs. These allocation tables contain a list of units that EPA



believes, based on best available data, meet the covered and existing unit criteria. As described above, the percentage of the state budgets allocated to existing units varies between 86% and 98% for each state depending on the number of planned units in each state.

EPA has computed default allowance allocations for the 2023 and 2024 control periods for all units identified as subject to the new trading program established in this action as described above except where a unit was determined to be ineligible to receive default allocations for reasons related to retirement. To determine which of the units identified as subject to the new trading program are ineligible to receive default allocations for a given control period, EPA identified each unit that failed to operate in the 2021 base year control period, has officially retired, or has scheduled a retirement prior to January 1, 2024 with sufficient certainty to be reflected in the process for setting the emission budgets. For these units, EPA does not provide a default allowance allocation for any control period, in the case of a unit that has already failed to operate in the base year control period or has officially retired, or for any control period after the year of the unit's scheduled retirement, in the case of the remaining units. This approach to determining eligibility to receive allocations as an existing unit does not apply to other units that may cease operations but whose upcoming retirements were not scheduled as of proposal of this action with sufficient certainty to be reflected in the process for setting the emission budgets. Rather, for units with unscheduled future retirements, the units are eligible to receive default allowance allocations as existing units under the trading program established in this action for the relevant control period(s). See preamble section VII.B.9.b for further discussion on this topic. Any units that do not receive default allocations as existing units for a given control period are eligible to receive allocations from the respective states' new unit set-asides for that control period if the units in fact operate during the control period.

#### b) Data and Calculations

For the units identified through the process in section 3a) above, EPA used reported heat-input and emissions data from 2017-2021 from the EPA database because they were already reporting under the Acid Rain Program or a CSAPR program. For units included in the list of potential existing units that were not reporting under one of these ongoing EPA trading programs, EPA used data from the EPA database for units monitoring to comply with SIP requirements. The proposed heat input-based allocation method described below is used to allocate the existing unit portion of the state's budget (i.e., the state budget less the state's new unit set).

Specifically, the methodology establishes a baseline historical heat input value for each potential existing unit and identifies a unit's tentative share of available allowances under the proposed trading program equal to the unit's percentage share of the total baseline historical heat input for all eligible existing units in the state. In instances where the tentative heat input-based allocation to a given unit exceeds the unit's historical maximum emissions over the baseline period, this historical maximum emissions is used as an upper bound on the allocation and the unit's allocation is set equal to this emission level. Any amount of the unit's tentative heat input-based allocation exceeding the unit's historical maximum emissions is then reapportioned to other eligible existing units in the state whose tentative heat input-based emissions do not exceed their historical maximum emissions. This approach is applied to each state separately, using the portion of that state's budget available for eligible existing units in that state.

Allocations under this approach for each existing unit are determined by applying the following steps.

1. For each unit in the list of existing units, ozone season heat input values for the baseline period of 2017 through 2021 are identified using data reported to EPA. For a baseline year for which a unit has no data on heat input (e.g., for a baseline year before the year when a unit started operating), the unit is assigned a zero value. (Step 2 explains how such zero values are treated in the calculations.) The allocation method uses a five-year baseline period in order to improve representativeness of a unit's normal operating conditions over time.



2. For each unit, the three highest, non-zero ozone season heat input values within the five-year baseline period are selected and averaged. Selecting the three highest, non-zero ozone season heat input values within the five-year baseline period reduces the likelihood that any particular single year's operations (which might be negatively affected by outages or other unusual events<sup>2</sup>) determine a unit's allocation. If a unit does not have three non-zero heat input values during the five-year baseline period, EPA averages only those years for which a unit does have non-zero heat input values. For example, if a unit has only reported data for 2018 and 2019 among the baseline years and the reported heat input values are 2 and 4 million British thermal units (MMBtus) respectively, then the unit's average heat input used in the allocation process is  $(2+4)/2 = 3$ .
3. Each unit is assigned a baseline heat input value calculated as described in step 2 above. This baseline heat input value is referred to in the data tables in the rulemaking docket as the "three-year average heat input."
4. The three-year average heat inputs of all eligible existing units in a state are summed to obtain that state's total "three-year average heat input."
5. Each unit's three-year average heat input is divided by the state's total three-year average heat input to determine that unit's share of the state's total three-year average heat input.
6. Each unit's share of the state's total three-year average heat input is multiplied by the existing-unit portion of the state budget (i.e., the state budget less the state's new unit set-aside) to determine that unit's tentative heat input-based allocation.
7. A five-year (2017-2021) historical emissions baseline period is established for ozone season NO<sub>x</sub> based on data reported to EPA. (Note that the proposed use of a five-year historical emissions baseline period in this rulemaking, matching the five-year historical heat input baseline period, would simplify the database maintenance and calculation processes relative to previous rulemakings where EPA used an eight-year historical emissions baseline period).
8. For each unit, the maximum ozone season NO<sub>x</sub> emissions from the five-year baseline period for the unit is identified. These values are referred to as the "maximum historical baseline emissions" for each unit.
9. If a unit has a tentative heat-input based allocation (as determined in step 6) that exceeds its maximum historical baseline emissions (as determined in step 8), then its allocation equals the maximum historical baseline emission for that unit.
10. The difference (if positive) under step 9 between a unit's historical heat-input-based allocation and its "maximum historical baseline emissions" would be reapportioned on the same basis as described in steps 1 through 6 to units whose tentative heat-input-based allocations do not exceed their maximum historical baseline emissions. Steps 7, 8, and 9 are repeated with each revised allocation distribution until the entire existing-unit portion of the state budget is allocated. The resulting allocation value is rounded to the nearest whole number using conventional rounding. (If the sum of the rounded allocation values for all existing units in a given state does not equal the total amount of allowances being allocated among those units, the largest rounded allocation values for the individual units in the state are each adjusted upward or downward by one allowance each as necessary to make the sum of the adjusted allocation values equal the total amount of allowances being allocated. This step is repeated if necessary.) The table below provides an example application of the steps 1-10 in a hypothetical state.

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<sup>2</sup> For example, data from 2020 could be anomalously low due to the COVID pandemic. However, using the three highest years of data means that for units where this is the case, these data will not be considered.

Source data can be found at [ampd.epa.gov/ampd](https://ampd.epa.gov/ampd)

**Table 2: Demonstration of Allocations Using Proposed Allocation Methodology in a Three-Unit State With a 80 Ton State Budget**

	Step 1-6	Step 7,8,9	Step 10
	Historical Heat-input-based Tentative Allocation	Maximum Historical Baseline Emissions	Proposed Allocation
Unit A	20	16	16
Unit B	30	50	32
Unit C	30	50	32

*Where can I find these data?*

The unit level allocations can be found in the separate file titled “Unit-level allocations and underlying data for the proposed rule” published as an Excel file and available on EPA’s website, in the docket, and available as Appendix to this document. The file contains eight worksheets. The first, titled “Proposed 2015 NAAQS Allocations”, identifies each unit and its 2023 and 2024 allocations under the trading program. It also shows, for 2023, the prorated allocations based on the rule’s effective date if the effective data is after May 1, 2023. The second worksheet, titled “2023 Summary of Changes” provides more summary details about the prorated allowances. The third worksheet, titled “Underlying Data for FIP”, shows all the data and calculations that are enumerated above. Each of the ten steps is color coded and displayed in sequential order moving from left to right across the spreadsheet. The formulas to derive any calculated values are explained directly beneath the column header. The fourth, fifth, and sixth worksheets show data and calculations described in section 3c (States with state-approved allocation methodologies) for states where state-approved allocation methodologies from SIP submittals were used in place of EPA’s default allocation methodology described above. The seventh worksheet, titled “Retired Units”, lists those units for which EPA has not received official notification of retirement but which EPA nevertheless believes were retired units as of January 1, 2021 as well as units with scheduled future retirements known with sufficient certainty to be taken into account in the budget-setting process; EPA is not determining allocations for these units as existing units for control periods following the year of retirement or scheduled retirement.<sup>3</sup> If the units resume operation, they would have to comply with the program (they would initially qualify for NUSA allocations; due to dynamic budgeting, they would again be existing units in approximately two years). The eighth worksheet lists units which came on-line after January 1, 2021 and are considered new units. To allow identification of units that would be in an Indian country existing unit set-aside if a state chose to submit a SIP as discussed in preamble section VII.D.3, a flag indicating units not subject to a state’s SIP authority is included in the third through sixth worksheets.

### *Consent Decrees*

EPA’s consent decrees with fossil fuel-fired power plants were examined to evaluate if these impact unit level allocations. (<https://www.epa.gov/enforcement/coal-fired-power-plant-enforcement>)

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<sup>3</sup> The spreadsheet generally does not list units for which, at the time the spreadsheet was prepared, EPA had already received official notifications that the units were retired before January 1, 2021. However, as discussed above, these units are likewise ineligible to receive allocations as existing units for the trading program established in this action.

Tonnage limits in the consent decrees were evaluated first. There are no ozone season tonnage limits in the consent decrees, only annual tonnage limits. The annual tonnage limits were each checked and in all cases are above the unit-level allocations of ozone season allowances under this rule. In other words, no ozone season unit-level allocation exceeds the annual limitation established in the consent decrees. Therefore, tonnage limits in the consent decrees are not relevant to the ozone season unit level allocation process in the proposal.

EPA also looked at NO<sub>x</sub> emission rate limits in these consent decrees; this information can be found in a separate file entitled “Impact of coal consent decrees for the proposed rule”. When the emission rate limits are applied with an assumption of average heat input, EPA found that collectively, across all units with emission rate limits under the consent decrees, the amount of allowances allocated to the units could exceed the estimated emissions allowed under the units’ rate limits by a total of 54 tons in both 2023 and 2024. This analysis included 42 units with consent decree NO<sub>x</sub> emission rate limits that are proposed as existing units in the proposed Rule. Moreover, EPA determined that if maximum allowable heat inputs were assumed instead of average heat inputs, no unit would have an allowance allocation exceeding its emission rate limit in any program year. Therefore, EPA concluded that the emission rate limits in the consent decrees would affect very few allowances in the proposed trading program, if any. Any effort to reallocate the allowances potentially made unusable by emission rate limits would require EPA to make assumptions about individual units’ future utilization and heat input. Because this would require the use of unit-level projections whose application in setting unit-level allocations would be difficult to support, and because few allowances are potentially at risk, EPA has chosen not to adjust allocations to reflect emission rate limits defined in the consent decrees. EPA again notes that states may substitute their own state-determined allowance allocations for EPA’s default allowance allocations for control periods starting in 2024 through SIP revisions.

#### c) States with State-approved Allocation Methodologies

In the CSAPR Update and the Revised CSAPR Update, if, at the time the rule was finalized, EPA had already approved a SIP revision addressing the allocation of CSAPR ozone season NO<sub>x</sub> allowances among the units in the state, and if the SIP’s allocation provisions could be applied to an updated budget, EPA used the allocation methodology in the approved SIP revision to govern the allocation of allowances among that state’s units under the final rules. EPA is following the same in the proposal for the 2023 and 2024 control periods. For control periods in 2025 and later years, standard FIP allocation provisions would be used instead of state specific SIP provisions as states have time to submit SIP revisions if desired.

Three of the states that are covered by the proposal – Alabama, Indiana, and New York – have approved SIPs with state methodologies for allocating allowances. *See* 83 FR 64472 (Dec. 17, 2018) (Indiana); 84 FR 38878 (Aug. 8, 2019) (New York). The allocation methodologies used for existing units in these states are described below.

##### *Alabama*

- 1) In step 1, instead of the standard baseline period of 2017 through 2021, ozone season NO<sub>x</sub> values for the baseline period of 2014 through 2021 are identified using data reported to EPA.
- 2) The standard unit level allocation methodology and standard NUSA methodology are utilized from this point forward.

##### *Indiana*

- 1) In step 1, instead of the standard baseline period of 2017 through 2021, ozone season heat input values for the baseline period of 2014 through 2021 are identified using data reported to EPA;

instead of the standard baseline period of 2017 through 2021, ozone season NO<sub>x</sub> values for the baseline period of 2014 through 2021 are identified using data reported to EPA.

- 2) In step 2, the standard methodology is used to average the three highest, non-zero ozone season heat input values within this longer eight-year baseline period.
- 3) The standard unit level allocation methodology and standard NUSA methodology are utilized from this point forward.

#### *New York*

- 1) A preliminary allocation for each unit is computed as the average of the unit's ozone season NO<sub>x</sub> emissions for the years 2019 to 2021, with zero data years included as zeroes.
- 2) All preliminary unit allocations at the end of step 1) are summed. If the sum is no more than 85% of the state budget, proceed to step 4). If the sum exceeds 85% of the state budget, first do step 3).
- 3) Apply an equivalent ratio to all preliminary unit allocations from step 1) to reduce the sum of all unit allocations to 85% of the state budget.
- 4) The preliminary unit allocation value is rounded to the nearest whole number using conventional rounding.
- 5) The total portion of the state budget set aside for new units is 5%.
- 6) The difference between the sum of all unit allocations and the total NUSA portion is allocated to NYSEDA. By definition this must be at least 10% of the state budget, though it could be higher.

#### **d) Allocations of Prorated Allowances to Existing Units for the 2023 Control Period**

EPA anticipates the possibility that the effective date of a final rule in this rulemaking will fall after May 1, 2023. The first control period under the new trading program established in the proposal will start on May 1, 2023, and the state emission budgets for the 2023 control period are computed on the basis of data for the full 2023 ozone season. To ensure that the enhanced control stringency represented by the new budgets will not take effect until after the final rule's effective date, EPA proposes to determine prorated budgets and allowance allocations for the 2023 control period. For the portion of the 2023 control period occurring between May 1, 2023 and the rule's effective date, the budgets for each state covered by the rule will equal the budgets that would have applied to the state for the 2023 control period in the absence of this rule (i.e., the current Group 3 budget for states already in the Group 3 trading program, the current Group 3 budget for states already in the Group 2 trading program, and zero for states not currently in either the Group 3 or the Group 2 trading program) prorated by the number of days from May 1, 2023 through the day before the final rule's effective date. For the remaining portion of the 2023 control period, the budgets for each state will equal the 2023 full-season budgets determined under this rule, prorated by the number of days from the final rule's effective date through September 30, 2023. This is discussed in detail in section VII.B.11 of the preamble. The total allowances issued for each state will be allocated among the state's existing units as if the state's prorated 2023 emission budget had been used to compute the unit-level allowance allocations, using the same methodology described in the earlier sections of this document and using the amounts of the new unit set-aside for each state for the 2023 control period proposed in this rulemaking and published at 40 CFR 97.1010(a) for each state, which have been determined using the methodology described above.

EPA will post an updated version of the "Unit-level allocations and underlying data for the 2015 NAAQS Proposed rule" spreadsheet referenced above showing the calculations of unit-level allocations of the prorated allowances and will provide public notice of the updated spreadsheet's availability.

#### **e) Allocations from 2025 Onwards**

As discussed, dynamic state budgeting begins in 2025. Except as noted throughout this TSD, the allocation methodology continues to use the standard methodology with the most recent data years available for each year of allocations. This is discussed in preamble section VII.B.9. After EPA performs the preliminary computations for each control period, the Agency will issue a NODA with the preliminary unit-level allocations for each control period and will give stakeholders an opportunity to submit any objections to the data or preliminary computations. EPA will then make any necessary adjustments to the data and calculations and will issue another NODA with the final unit-level allocations for each control period.

## **Appendix**

“Unit-level allocations and underlying data for the proposed rule” available in accompanying excel file

“Impact of coal consent decrees for the proposed rule” available in accompanying excel file