6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R06-OAR-2017-0435; FRL-9979-15-Region 6]

Approval and Promulgation of Implementation Plans; Arkansas; Revisions to Minor New Source Review Program

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: Pursuant to the Federal Clean Air Act (CAA or the Act), the Environmental Protection Agency (EPA) is approving revisions to the Arkansas State Implementation Plan (SIP) minor New Source Review (NSR) program submitted on July 26, 2010, and March 24, 2017, including supplemental information provided on November 30, 2015, May 26, 2016, July 5, 2017, July 27, 2017, and March 16, 2018. Specifically, we are proposing to approve revisions that revise the minor NSR permitting thresholds and *de minimis* levels, as well as, additional non-substantive revisions contained in those submittals. This final action is consistent with the requirements of section 110 of the CAA.

DATES: This rule is effective on **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].**

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA-R06-OAR-2017-0435. All documents in the docket are listed on the *http://www.regulations.gov* Web site. Although listed in the index, some information is not publicly available, *e.g.*, Confidential Business Information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be

publicly available only in hard copy form. Publicly available docket materials are available either electronically through *http://www.regulations.gov* or in hard copy at the EPA Region 6, 1445 Ross Avenue, Suite 700, Dallas, Texas 75202-2733.

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SUPPLEMENTARY INFORMATION: Throughout this document "we," "us," and "our" means the EPA.

I. Background

The background for this action is discussed in detail in our September 18, 2017 proposal (82 FR 43506). In that document we proposed to approve revisions to the Arkansas SIP submitted on July 26, 2010, and March 24, 2017, including supplemental information submitted on November 30, 2015, May 26, 2016, July 5, 2017, July 27, 2017, and March 16, 2018. The revisions addressed in our proposal included revisions to the Arkansas minor NSR permitting thresholds and *de minimis* levels, as well as, additional revisions to the minor NSR provisions that are considered to be non-substantive.

We received one set of comments on the proposal. The full text of the comment letter received during the public comment period, which closed on October 18, 2017, is included in the publicly posted docket associated with this action at *www.regulations.gov*. Below the EPA provides a summary of the comments received and corresponding responses.

II. Response to Comments

COMMENT: The commenter stated that the revised minor NSR rule fails to provide legally enforceable procedures to ensure new sources that could interfere with NAAQS attainment or maintenance or violate the control strategy won't be allowed to construct. More specifically, they

stated that the minor NSR program does not explain how "actual emissions" are to be determined for a new source with no operational history. To the extent that Arkansas Department of Environmental Quality (ADEQ) determined applicability for new sources based on projected actual emissions, then the rule could ultimately allow sources with emissions greater than the permitting thresholds to construct without a permit and without evaluation of air quality impacts by a new source underestimating emission factors and/or operating parameters and exceeding those projected emissions after its construction. Therefore, the commenter stated it is unclear what size of sources could ultimately end up exempt from Arkansas' minor NSR program. The commenter claims that because of the noted deficiencies there is a problem with any attempt to determine whether the revised minor NSR rule's applicability thresholds are set to the appropriate level to ensure the state meets the applicable federal requirements found in CAA section 110(a)(2)(C) and 40 CFR 51.160(b).

RESPONSE: This comment is not relevant to our current rulemaking. As shown in Section IV of the Technical Support Document that accompanied our proposed approval action, our rulemaking only addresses revisions to the permitting thresholds values contained in Reg. 19.401. The applicability determination for the minor NSR program and its reliance on "actual emissions" was not revised by Arkansas as part of the July 26, 2010, or May 24, 2017 SIP revision submittals. Therefore, the applicability determination as originally SIP-approved October 16, 2000 (65 FR 61103) remains unchanged, is not a part of this rulemaking, and any comment on it is not relevant to the current rulemaking.

While the comments regarding the applicability determination basis are not relevant to this rulemaking, we will respond to the commenter's assertion that any attempt to determine if the revised minor NSR permitting thresholds meet the referenced federal requirements is

problematic. We do not agree with this statement. As outlined in our proposed rulemaking, we evaluated several analyses submitted by Arkansas in support of the revised thresholds, including an emissions inventory analysis, a monitoring trends analysis, and a modeling analysis. Based on our evaluation of those analyses along with the SIP revisions submittals documentation (found in the Technical Support Document (TSD)), we find that the proposed thresholds will meet applicable federal requirements and not interfere with NAAQS attainment or maintenance or violate the control strategy. As required by Reg. 19.401, a source with actual emissions greater than the applicability thresholds would be required to obtain a permit and is subject to enforcement action if the source fails to do so. The emissions from a new source to be compared with the permitting thresholds would be based on controlled emission factors and projected operations (hours of operation and/or amounts of material processed). This approach allows permitting applicability to be based on emissions that are close to actual emissions. The regulation specifically does not allow construction and operation of sources with actual emissions in excess of the thresholds, and any source that did underestimate their emissions and exceed the emissions thresholds would be in violation of the regulations and beyond the scope of the analyses conducted to demonstrate the regulation's compliance with applicable federal requirements for minor NSR programs.

COMMENT: The commenter stated that the rule exempting *de minimis* changes at existing sources from permitting fails to provide legally enforceable procedures to ensure that modified sources that could interfere with NAAQS attainment or maintenance or violate the control strategy won't be allowed to construct. More specifically, they stated a physical change or change in the method of operation at a source with no existing permit has no existing "permitted rates" to compare "proposed permitted rates" to, and the rule does not explain how applicability

is determined in such cases and the rule does not clearly say that it applies only to sources with existing permits. In addition, the commenter stated that Reg. 19 does not clearly require a permit application for *de minimis* changes. Therefore, they claim that *de minimis* exemptions rule does not meet the requirements of 40 CFR 51.160(a) of providing legally enforceable procedures.

RESPONSE: We do not agree that the applicability of the de minimis changes rule to existing sources with no permits is unclear. The *de minimis* change provisions are found in paragraph C of Reg. 19.407 of Arkansas' "Minor Source Review" regulation (Reg. 19, Chapter 4). Reg. 19.407 is titled "Permit Amendments" and as stated in our original 2000 approval of Reg. 19.407 (65 FR 26795; finalized at 65 FR 61103), this section describes the procedures for amending a permit. Because Reg. 19.407 describes permit amendments, including *de minimis* changes, these provisions are not applicable to a source that does not have a permit. Existing sources with no existing permit would be subject to the minor NSR permitting thresholds found in Reg. 19.401 under the "General Applicability" section to determine if the source was subject to minor NSR permitting requirements. In addition to the clarity provided in the rule itself, the current "Air Application Instructions for Registrations, Minor Source Permits, or Title V Permits" made available on ADEQ's air permitting website also indicates that *de minimis* applications are for "small modifications to a permit." (Pg. 5)[1] Page 12 of the application instructions reiterates the applicability of the *de minimis* rule and states that a *de minimis* application "applies to facilities having a current air permits [sic]." Much like the *de minimis* change provisions in the rule, it is clear based on ADEQ's current air permit application guidance that the *de minimis* change rule only applies to existing permitted facilities and not new facilities.

[1] Air Application Instructions available online at: https://www.adeq.state.ar.us/downloads/WebDatabases/Air/PermitData/Forms%20and%20Instructions/Form%20and%20Instructions/Air_Permit_Application_Forms_Instructions.pdf.

The portion of the comment raised regarding permit application requirements for *de minimis* changes is not relevant to our current rulemaking. As shown in Section IV of the Technical Support Document that accompanied our proposed action, our rulemaking only addresses revisions related to *de minimis* changes that are found in Reg. 19.407(C)(2)(a) and (b). Permit application requirements, which are found in Reg. 19.404, are currently SIP-approved and were not revised as part of the July 26, 2010, or May 24, 2017 SIP revision submittals under review in this rulemaking. Similarly, Reg. 19.407(C)(7) was not revised in the 2010 or 2017 SIP revision submittals. Therefore, the SIP-approved Reg. 19.404 and Reg. 19.407(C)(7) provisions as most-recently approved on October 16, 2000 (65 FR 61103) and April 12, 2007 (72 FR 18394), respectively, remain unchanged and are not part of this rulemaking and any comment on those provisions is not relevant.

COMMENT: The commenter claims that Arkansas has failed to adequately justify the basis for its revised emission thresholds for exempting new sources and *de minimis* changes from its minor NSR program. They state that 40 CFR 51.160(e) requires states to identify the types and sizes of sources subject to its minor NSR program and to explain the basis for determining which facilities are subject to review. ADEQ's justification for the emission thresholds adopted in its minor NSR program for Reg. 19, Chapter 4, was essentially that these tons per year thresholds were the same thresholds identified as "*de minimis*" under major NSR permitting programs. However, there has been no analysis with current modeling techniques that the major NSR significance levels are adequate to ensure a modified source won't interfere with the attainment or maintenance of all of the various current NAAQS, which differ in stringency from the NAAQS applicable at the time the PSD significant emission rates were developed. The commenter also stated that the AERMOD (dispersion) modeling results, which they believe

underestimate actual impacts, indicate that the pollutant concentrations resulting from the emissions exempt from permitting based on the revised thresholds are significantly higher than 4% of the NAAQS, which was a threshold for the EPA's analyses from 1980, 1987, and 2008 for demonstrating that the significant emission levels were *de minimis* to the PSD program.

RESPONSE: We do not agree with this comment. Although ADEQ did include the data referenced by the commenter in their initial 2010 SIP revision submittal, the basis for ADEQ's findings regarding the appropriateness of the revised thresholds was different and they also provided additional analyses to demonstrate the scope of the exempt sources and modifications resulting from the revised minor NSR permitting thresholds and *de minimis* change levels and to demonstrate that the revised thresholds will not interfere with attainment or maintenance of the NAAQS. These analyses were included in their entirety in the March 24, 2017 SIP revision submittal and included: (1) an emissions inventory analysis that determined the percentage of the total statewide emissions that were to be exempt under the revised minor NSR permitting thresholds and *de minimis* change levels; (2) a monitoring trends analysis that included a review of the current status of ambient air quality, as well as, the impacts of the revised thresholds on ambient concentration monitoring trends in the state of Arkansas; and (3) a modeling analysis that included photochemical and dispersion modeling analyses that evaluated the impacts of the revised thresholds through model predicted results. The air quality modeling analysis report included in Appendix D of the March 24, 2017 SIP submittal describes the modeling approach used by ADEQ as part of the demonstration showing that the revised minor NSR permitting thresholds and *de minimis* change levels will not adversely impact the current NAAQS. Based on our review of the modeling analysis, which did use current air quality modeling techniques, and the other analyses completed by ADEQ, we found that the impacts resulting from the revised

minor NSR permitting thresholds and *de minimis* levels would not interfere with the state's ability to maintain compliance with the NAAQS.

As discussed in the Technical Support Document accompanying our proposed action, ADEQ conducted both regional scale photochemical modeling using CMAQ and local-scale dispersion modeling using AERMOD to examine the predicted impacts from sources or *de minimis* changes that would be exempt from minor NSR permitting based on the revised thresholds.[2] ADEQ employed this combined modeling approach in an effort to look at both regional and local scale impacts from emissions equal to the revised thresholds for VOC, NO_X, SO_2, CO, PM_{10}, and PM2.5. In both the regional- and local-scale modeling analyses, ADEQ modeled hypothetical sources with emissions equal to the minor NSR permitting and *de minimis* change thresholds and stack parameters set equal to median values based on the 2011 National Emissions Inventory (NEI) for Arkansas sources. As part of photochemical modeling, the maximum CMAQ-derived impacts on daily maximum 8-hour ozone, 24-hour $PM_{2.5}$, annual average $PM_{2.5}$, 1-hour NO_2, 1-hour SO_2, and 24-hour PM_{10} were calculated. The statewide maximum impacts for each day resulting from the hypothetical sources was added to the unmodified future year concentration for each day and grid cell. The resulting concentrations represented the worst-case ambient concentrations including impacts from the threshold emission increases at any location in Arkansas. These worst-case ambient concentrations were then used to calculate relative response factors (RRFs) to estimate future design values (FDVs) at both

[2] See Pages 31-32 of the EPA's Technical Support Document dated August 24, 2017, which discusses the air quality modeling analyses that were completed by ADEQ in support of the submitted SIP revisions. In addition to the TSD, additional details regarding the modeling analyses are located in the modeling report submitted as part of the March 24, 2017 SIP revisions submittal, which outlines modeling tools and techniques utilized by Arkansas along with the results from the modeling analyses. (ADEQ's modeling report located in the "ADEQ 2010 Minor NSR Permitting Thresholds and *De Minimis* Levels SIP Revision – Technical Support Document" dated November 2015,)

monitored and unmonitored locations throughout Arkansas.[3,4] The FDVs were compared with FDVs without the thresholds increase impacts, as well as, the NAAQS in an effort to determine whether emissions increases less than the minor NSR thresholds would cause or contribute to NAAQS violations or potentially interfere with NAAQS maintenance. Similar to the regional-scale photochemical modeling, the hypothetical sources modeling in the near-field dispersion modeling analysis were modeled with emission rates equal to the minor NSR permitting thresholds and *de minimis* levels and stack parameters were set equal to median stack parameter based on the 2011 NEI data. The maximum AERMOD-derived impacts on daily maximum 1-hr NO_2, annual average NO_2, daily maximum 1-hour SO_2, daily maximum 1-hour CO, daily maximum 8-hour average CO, and 24-hour average PM_{10} were calculated for each air quality control region. The daily AERMOD-derived concentrations were added to the CMAQ-derived concentrations for the same location, using the CMAQ values as "background." ADEQ stated that the values determined for the statewide daily maximum impacts are expected to represent the near-field concentrations assuming worst-case impacts from threshold emission increases at a range of locations through Arkansas. The daily maximum worst case AERMOD impacts were added to the unmodified future year concentration for each day and grid cell. The resulting concentrations represented the worst-case ambient concentrations including impacts from the threshold emission increases at any location in Arkansas. Similar to the CMAQ-only modeling analysis, the worse-case modeled impacts were used to calculate RRFs and FDVs. The

[3] A RRF is the ratio of future case modeled concentrations to base case modeled concentrations, which is used to quantify the relative impacts of the emissions added to the model. In the photochemical modeling conducted by ADEQ, the base case modeled concentrations are taken from the 2015 modeling without the hypothetical sources added while the future case modeling results are taken from the 2015 modeling plus the 8 modeled hypothetical sources. Therefore, the RRFs calculated in this modeling analysis quantify the relative impacts from the additional emissions from the hypothetical sources that would be exempt from permitting based on the new thresholds/*de minimis* levels.

[4] RRFs can be used to estimate FDVs, which are determined by applying the RRF ratios to monitored design values from the base year taken from ambient monitoring data.

calculated FDVs were compared with the original unmodified FDVs and the NAAQS in order to examine the potential impacts of the proposed minor NSR threshold emissions on NAAQS attainment and maintenance. The modeling conducted by Arkansas utilized current air quality modeling techniques to demonstrate that the predicted impacts resulting from emissions at or below the revised minor NSR permitting thresholds and *de minimis* change levels, which happen to be equal in magnitude to the major NSR significance levels, will not interfere with the attainment or maintenance of the NAAQS current in effect at the time of the analysis – including those that were not applicable at the time the PSD significant emission rates were developed.

Further, the entirety of the additional analyses provided by ADEQ in the March 24, 2017 SIP revision submittal, including the NAAQS non-interference modeling demonstration, was the basis of the EPA's finding that the revised thresholds were approvable. As such, a linkage to the PSD significant emission rate values and/or comparison of modeled impacts to percentage thresholds relied upon during the EPA's development of the significant emission rates in 1980, 1987, and 2008 for the PSD program was not applicable to our proposed approval of the revised minor NSR permitting thresholds and *de minimis* levels. Elsewhere in this final rulemaking, we have addressed the comments specifically made regarding the modeling techniques used by Arkansas and restated our finding that those techniques were reasonable and appropriate for the NAAQS non-interference demonstration required by CAA section 110(l).

COMMENT: The commenter stated that modified major sources exempted from major source permitting under the PSD program will also be exempt from minor source permitting under Arkansas' *de minimis* changes rule and that the revised minor NSR program will not pick up the slack and ensure protection of the NAAQS as was intended when EPA promulgated the 2002 revisions to the major source NSR rules.

RESPONSE: The commenter is incorrect that modifications to existing PSD major sources, which are exempt from PSD permitting, would be exempt from minor source permitting under the *de minimis* change rule. As discussed below, any change at an existing major NSR source (PSD source) is prohibited from using the *de minimis* change process because the *de minimis* change rule at Reg. 19.407(C) is located in Chapter 4 of Reg. 19, which does not apply to PSD sources or any modifications at those sources.

The SIP-approved Arkansas NSR program is comprised of two types of review: "Minor Source Review" and "Major Source Review". Arkansas operates a so-called "merged, one permit" system, which is divided into these two types of review based on whether a source is required to obtain a title V operating permit. As such, "Minor Source Review", which is contained in Reg. 19, Chapter 4, applies only to those sources that are not subject to title V permitting and require only a title I NSR authorization.[5] All sources that are subject to title V, which would include PSD sources, are subject to "Major Source Review" under Reg. 26 provisions incorporated by reference in Reg. 19, Chapter 11. Therefore, all permitting at PSD sources, including all modifications, would be subject to Reg. 19, Chapter 11 "Major Source Review" under the Arkansas NSR permitting program and cannot use the *de minimis* change provisions, which are limited to "Minor Source Review" in Chapter 4. Only those non-title V sources that are minor under the SIP-approved definition of minor source may qualify for the *de minimis* change exemption found in Reg. 19.407(C). As discussed in our proposed rulemaking and the accompanying TSD, the emissions inventory analysis for the *de minimis* changes found

[5] As stated in our original SIP approval of Chapter 4, "[a] minor source is any source which does not meet the requirements of a major source. The Act in section 302(j) defines the terms "major stationary source" and "major emitting facility" as "any stationary facility of source of air pollutants which directly emits, or has the potential to emit, one hundred tons per year of more of any air pollutant (including any major emitting facility or source of fugitive emissions of any such pollutant, as determined by rule by the Administrator).""

that the scope of changes expected to qualify for the *de minimis* change exemption is very small with emissions associated with those exempted changes making up a fraction of a percent of statewide emissions. The range of percentage of statewide emissions for the pollutants determined in the emissions inventory analysis for *de minimis* changes was 0.0005% to 0.019%. At these levels it would require over 50 times the NO_X emissions authorized in 2016 to approach 1% of the statewide emissions and over 300 times the emissions for the other pollutants.

The state did not rely solely on the emissions inventory analysis to demonstrate NAAQS compliance. This emissions inventory analysis was coupled with additional analyses specifically looking at ambient concentrations (monitoring trends analysis) and potential ambient impacts (modeling analysis) that were completed by ADEQ as part of the 110(l) demonstration. The results from the modeling analysis indicate that while the addition of the exempt emissions did result in slight increases in the model predicted impacts, it did not violate the NAAQS. As such, the modeling analysis portion of the 110(l) demonstration shows that revised minor NSR program will continue to ensure NAAQS protection.

EPA's intent at the time of promulgation of the 2002 revisions to the major source NSR rules is not relevant here. What is relevant here is the approvability of these revisions in the context of the current regulatory framework as promulgated. The commenter has not cited any ambiguous regulatory language in order to justify an examination of EPA's intent. In the absence of any ambiguity in regulatory language it is not necessary to address EPA's intent here as there is no dispute regarding interpretation on the applicable rules.

COMMENT: The commenter stated that EPA has previously required minor NSR programs to use much smaller emission thresholds than the major modification significant impact levels and gave the example of the Montana minor NSR program includes a *de minimis* increase exemption

threshold of 5 TPY, which was approved by EPA, after a 15 TPY threshold that was initially set by Montana was not approved by EPA into the SIP.

RESPONSE: In the case of Montana, which was referenced by the commenter, the state did not provide an adequate demonstration to support the approval of the 15 TPY exemption threshold that was initially established by the state into the SIP. The state later revised the threshold to 5 TPY and submitted this threshold for SIP approval along with an analysis to show that the 5 TPY exemption would not interfere with NAAQS attainment or maintenance or violate the control strategy. Based on the revised submittal and supporting information, EPA approved the lower threshold of 5 TPY into the Montana SIP. Our proposed approval of the *de minimis* change levels in Arkansas does not contradict the previous Montana approval. In fact, our proposed approval mirrors the Montana SIP approval in that we requested analyses from Arkansas as part of the 110(l) demonstration for the revised *de minimis* change levels and our approval is based on those analyses as documented in the proposed rulemaking. Specifically, we found that Arkansas' documentation adequately demonstrates that these revised thresholds will not interfere with NAAQS compliance. Our approval of one *de minimis* exemption threshold level in one state does not preclude the approval of a different threshold in another state. Each state's universe of minor NSR sources, meteorology, and ambient air quality conditions are unique and influence the types of exemptions that would not interfere with the minor NSR program's ability to meet the applicable federal requirements.

COMMENT: The commenter stated that the *de minimis* change rule contradicts with how applicability is determined under PSD permitting requirements and thus fails to ensure projects that should be required to obtain a PSD permit will not be instead considered a *de minimis* change under Reg. 19.407(C). They also state that EPA must disapprove the current submittal

and require Arkansas to revise its *de minimis* rule and relevant definitions rule to clearly state that changes that are considered major modifications under the PSD permitting regulations cannot be considered as *de minimis* changes. Without such language clearly stated, the Arkansas minor NSR program could allow sources that would otherwise be subject to PSD permitting to improperly avoid major source PSD permitting requirements for a major modification. The commenter also states that EPA must disapprove the version of Reg. 19.407(C) currently approved into the SIP which EPA has reopened with this action to the extent the provisions could interfere with compliance with the PSD permitting regulations.

RESPONSE: We agree with the commenter that changes that are considered major modifications under the PSD permitting regulations cannot be considered as *de minimis* changes. However, the commenter is incorrect that the revisions to the *de minimis* change provisions will interfere with proper implementation of the PSD permitting requirements. As previously stated in our responses, the *de minimis* change rules contained in Chapter 4 of Reg. 19 cannot be used for *any* changes at PSD sources/modifications. Therefore, our proposed approval of revisions to Chapter 4, including the *de minimis* change rule, will not impact PSD permitting implementation. Changes that are considered major would be subject to permitting under Reg. 26 is incorporated by reference in Chapter 11, which utilizes an actual-to-projected actual test for modifications to existing units and an actual-to-potential test for new units, are not exempted from the requirements of Chapter 11 by the provisions we are approving in this rulemaking. As noted in Section IV of the TSD, we are not taking action on any portion of Chapter 11 and the requirements of that chapter, which mainly incorporate by reference the requirements of the federal PSD program at 40 CFR 52.21, remain in effect.

Regarding the commenter's statement that EPA should take action to disapprove Reg. 19.407(C) as it is currently approved into the SIP, aside from the revisions to 407(C)(2)(a) and 407(C)(2)(b) which are clearly annotated in Section IV of the TSD, the other portions of Reg. 19.407 are not being revised by our current rulemaking.[6] Therefore, the other SIP-approved portions of Reg. 19.407 will remain unchanged by our rulemaking. As previously stated in our responses, any comment on provisions that are not being revised as part of our rulemaking is irrelevant to this action. Further, our current rulemaking does not reopen the current SIP-approved and unchanged provisions for any action, including disapproval.

COMMENT: The commenter stated that because the minor NSR revisions could allow for increased deterioration in air quality over PSD baseline concentration the EPA cannot approve such a SIP revision without a demonstration that it will not cause or contribute to a violation of the applicable PSD increment. The commenter listed the following as chances for increased deterioration resulting from the SIP revision: (1) the minor NSR SIP revisions submitted by ADEQ allow for an increase in allowable emission rates to occur under the *de minimis* provisions of Reg. 19.407(C)(7); (2) Reg. 19.417 allows sources currently holding permits pursuant to Reg. 19 but whose emissions are below the permitting thresholds to submit a registration request under Reg. 18.315, which is a state-only rule and not part of the SIP, and request that their permit containing federally enforceable requirements be terminated; and (3) to the extent ADEQ ensures compliance with the PSD increment as part of its minor NSR program, the relaxation in the sizes of sources and modifications subject to minor NSR permitting also could allow increased deterioration of air quality above baseline concentration. The commenter also stated that the modeling analysis provided by ADEQ to support approval of the minor NSR

[6] Reg. 407(C)(2)(a) and (b) contain the *de minimis* change emissions and air quality impacts thresholds.

relaxations included violations of the Class I and Class II PM_{10} increments that were predicted due to the increased emissions thresholds that would exempt from minor NSR review under the proposed SIP revision, which indicates that an unpermitted source pursuant to the expanded exemptions from Arkansas' minor NSR could cause an exceedance of the PM_{10} increment. The commenter also stated that pursuant to CAA section 110(l) and 40 CFR 51.166(a)(2), EPA cannot approve a SIP submittal which admittedly allows a violation of the PSD increments.

RESPONSE: We agree with the commenter that the revisions to the Arkansas minor NSR program do allow larger increases in allowable emissions to be authorized via the *de minimis* change rule by increasing the *de minimis* change thresholds. We also agree that the revisions allow currently permitted sources with emissions that fall between the old minor NSR permitting thresholds and the revised permitting thresholds to submit a registration under Reg. 18.315 and request that their Reg. 19 permit be terminated. However, the applicable legal test for determining approvability of these revisions, which revise the minor NSR program so that it becomes less stringent, is the requirement of CAA section 110(l), EPA cannot approve a revision to the SIP if it interferes with applicable requirements of the Act. The PSD increment requirement found at 40 CFR 51.166(a)(2) is inapplicable here because it is required to be met by a major source/major modification application, not a minor NSR permitting application. The major source/major modification application must show that the PSD increment is not violated and the applicant's modeling must include the emissions from all of the nearby minor sources, as well as any other nearby major sources. If the major source/major modification modeling shows the PSD increment will be violated by the proposed construction/modification, then the major source/major modification must reduce its requested emissions or obtain reductions from the other sources impacting the increment. Because the burden of not violating the PSD increment is

placed on the source subject to PSD, the PSD increment requirement does not apply to a minor NSR permitting SIP. As stated previously in our responses to the commenter, the PSD increment requirements are contained in the PSD rules under 40 CFR 51.166 and apply only to sources subject to PSD. They do not apply to minor sources. Therefore, an increment analysis would only be required to be completed as part of a PSD permitting action (Reg. 19, Chapter 9) and would be a separate analysis than that completed as part of the NAAQS demonstration. Further, the air quality modeling that was conducted by Arkansas was conducted for NAAQS compliance demonstration purposes as part of the 110(l) non-interference demonstration. (See the March 24, 2017 SIP Revision Submittal, Appendix D – Air Quality Modeling Analysis of Minor Source Permit Thresholds.) Because the PSD increment analysis and NAAQS analysis serve separate and distinct purposes, these analyses use different modeling approaches and often different model inputs. Therefore, a modeling demonstration conducted for NAAQS compliance cannot be relied upon to make a modeled PSD increment analysis determination, such as if a PSD increment violation exists. Therefore, we do not agree with the commenter that the NAAQS modeling indicates that the proposed SIP revision allows a violation of the PSD increments. We also do not agree that the modeled PM_{10} impacts exceed the referenced increments because the state's modeling analysis did not include a PSD increment analysis for comparison with the PSD increments to determine if a predicted exceedance occurred. In addition, we reiterate that a PSD increment analysis is not necessary as part of a 110(l) analysis to support revisions to a minor NSR permitting program, since the federal PSD increment analysis requirement at 40 CFR 51.166(a)(2) is not applicable to minor NSR programs.

COMMENT: The commenter stated that a comparison of emissions that could be exempt from the relaxed minor NSR with total statewide emissions across the state of more than 53,000

square miles does not give any indication of whether the exempted emissions would interfere with attainment or maintenance of the NAAQS or increments. As such, the commenter stated that the emissions comparison analysis does not provide information relevant to whether the relaxations to Arkansas' minor NSR program will interfere with attainment or maintenance of the NAAQS or any other CAA requirement.

RESPONSE: We do not agree with the commenter that the emissions inventory analysis for the emissions exempt from minor NSR permitting based on the revised permitting thresholds does not provide information that is relevant to the 110(l) analysis. This analysis serves to determine the scope, or portion of emissions that would not undergo minor NSR permitting requirements relative to the statewide emissions. The approach to determine the scope is independent of the physical size of the state since the emissions inventory analysis was conducted to compare exempt emissions with the statewide emissions inventory. As detailed in our proposed rulemaking the scope of emissions anticipated to be exempt from minor NSR permitting by the revised permitting thresholds was minimal. The pollutant-based emissions inventory analysis showed that the scope of emissions exempt from permitting based on the revised permitting thresholds ranged from 0.006% to 0.125% of the total statewide emissions. This analysis clearly demonstrates that the magnitude of emissions that would be exempt from minor NSR permitting program makes up an extremely small portion of the statewide emissions. The state did not rely solely on the emissions inventory analysis to demonstrate NAAQS compliance. This emissions inventory analysis was coupled with additional analyses specifically looking at ambient concentrations (monitoring trends analysis) and potential ambient impacts (modeling analysis) that were completed by ADEQ as part of the 110(l) demonstration. The modeling trends analysis looked specifically at the current status of ambient air quality and the trends in ambient

concentrations since the 2008 state adoption and on-going implementation of the revised minor NSR permitting thresholds. The modeling analysis examined the potential impacts of the exempt emissions on ambient air quality via local and regional air quality modeling. (See the March 24, 2017 SIP Revisions Submittal Appendix C – 2010 Minor NSR Permitting Thresholds and *De Minimis* Levels SIP Technical Support Document and Appendix D – Air Quality Modeling Analysis of Minor Source Permitting Thresholds. Monitoring analysis is discussed on pages 3-17 of Appendix C. Modeling analysis is discussed on pages 17-25 of Appendix C and pages 1-35 of Appendix D.) Regarding interference with increments, we previously responded regarding the non-applicability of PSD increment requirements to the 110(l) analysis completed for this rulemaking.

COMMENT: The commenter stated that ADEQ's emissions analysis was incomplete because it analyzed sources with allowable emissions less than the emission thresholds of Reg. 19.401 when the exemptions for new sources are not based on "allowable emissions," but instead are based on "actual emissions." The commenter also claimed the analysis was incomplete because it does not project total emissions that might be exempt from minor NSR in the future and instead reflects on sources that may request permits to be revoked because they are no longer subject to minor NSR permitting requirements found in Reg. 19, Chapter 4.

RESPONSE: We do not agree with the commenter that the emissions inventory analysis conducted for the permitting thresholds exemptions was incomplete. In their analysis, ADEQ compiled a complete list of all currently permitted minor NSR sources and determined which currently permitted sources would not be required to obtain a permit based on the revised permitting thresholds. It is important to note that this analysis included the review of all currently permitted facilities in the minor NSR program which spanned the entirety of the program –

meaning all active minor NSR permits that had been issued by ADEQ. EPA originally SIP-approved the Arkansas construction permitting requirements in October 1976 (effective November 1976).[7] This means that ADEQ looked at all minor NSR permits that had ever been issued and were still active. To determine the percentage of emissions exempt from permitting, the permitted emission rates were totaled for each pollutant and compared with the total emissions from the statewide emissions inventory. The state's analysis based on the permitted allowable emissions is more conservative than the use of actual emissions for those permitted sources since they represent the maximum permit allowable emissions for the particular source. In most cases, the actual emissions would be less than the allowable emissions because of actual operations at less than maximum levels during a given calendar year and because of non-operational periods that may have taken place. If the state had further refined their analysis to determine the historical actual emissions emitted by the currently permitted sources which would not be required to be permitted under the new thresholds and compared the total actual emissions with the total statewide emissions inventory, the actual emissions would be expected to make up an even smaller fraction of the total statewide emissions.

As stated above, Arkansas conducted the emissions review as a part of the 110(l) demonstration to determine the scope of emissions that were previously subject to minor NSR permitting that would be exempt from permitting under the revised thresholds. As stated above, Arkansas reviewed their entire minor NSR permitting universe, which included all active permits that had historically been issued by ADEQ, to determine the currently permitted emissions that

[7] EPA originally approved the Arkansas requirements for permitting the construction of new and modified sources, which were contained in the Regulation of Plan (ROP) Section 4 – Permits, on October 5, 1976, effective November 4, 1976. (41 FR 43904) EPA later approved the recodification of the permitting requirements for minor sources from ROP Section 4 into Regulation 19, Chapter 4 – Minor Source Review on October 26, 2000, effective November 15, 2000. (65 FR 61103)

would be exempt from minor NSR permitting under the revised permitting thresholds.[8] They found that the magnitude of currently permitted emissions that would be exempt from minor NSR permitting was a fraction of a percent of the total emissions in the statewide emissions inventory. (The range of calculated percentages by pollutant was 0.006% to 0.125%.) While emissions will be exempt in the future, the emissions inventory analysis shows the percentage of statewide emissions that were exempt from permitting for the entire minor NSR program based on the revised permitting thresholds indicates that the magnitude of emissions exempt from minor NSR permitting in the future will continue to make up a small fraction of the total statewide emissions. In addition, the state's regulations require that a source exempt from minor NSR permitting based on the new revised permitting thresholds but with emissions greater than the previous thresholds obtain a registration in accordance with Reg. 18.315, which allows ADEQ to keep track of the sources exempt as a result of the new thresholds. In addition to the emissions inventory analysis, Arkansas provided additional analyses, both monitoring and modeling, to further show the limited potential impacts of the revised minor NSR permitting thresholds. The monitoring analysis examined statewide ambient air quality data since the adoption of the revised minor NSR permitting thresholds in 2008 for CO, NO_X, SO_2, VOC, and PM_{10}, including the examination of trends in design values (DVs). Since adoption of the revised thresholds, the DVs remain unchanged or show downward thresholds since the 2008 adoption of revised thresholds.[9] The modeling analysis included regional-scale photochemical and local-scale air dispersion modeling to examine the potential impacts from emissions exempt from

[8] Ibid

[9] The Springdale ozone monitor was the only exception and showed increased DVs since 2008. ADEQ did further evaluation of the Springdale monitor and determined that the increase in the monitored ozone DVs at this monitor are likely due to the increase in mobile emissions in the Fayetteville-Springdale-Rogers MSA as a result of rapid population growth in that area (population grew by over 65,000 people in the 2007-2014 timeframe. The monitoring trends analysis included in the March 24, 2017 SIP submittal indicated that the 2012-2014 DV at the Springdale monitor was 67 ppb (as compared with the 2008 and 2015 O_3 NAAQS of 75 and 70 ppb, respectively).

minor NSR permitting based on the revised thresholds. (See the March 24, 2017 SIP Revision Submittal, Appendix D – Air Quality Modeling Analysis of Minor Source Permit Thresholds.) As expected, both the regional and local modeling indicated some increases in model predicted concentration as a result of adding the exempt emissions into the modeled emissions inventory. However, for all pollutants and averaging period, the resulting ambient concentrations were less than the corresponding NAAQS. As stated in our proposed rulemaking, we find that the analyses submitted by Arkansas as part of the 110(l) demonstration show that the revised thresholds will not interfere with attainment or maintenance of the NAAQS.[10]

COMMENT: The commenter stated that the emissions inventory analysis of the *de minimis* increases allowed (based on the 2016 *de minimis* approvals) is not persuasive because, the increased *de minimis* thresholds have not yet been approved as part of the SIP, and thus it is not reasonable to assume that all sources that might take advantage of this rule did take advantage of this rule in 2016. The commenter also states that because the revised minor NSR permitting thresholds and *de minimis* levels have not been approved as part of the SIP, the state cannot infer anything in the monitoring trends analysis regarding the impacts of the revised minor NSR rules on air pollutant concentrations from reviewing past monitoring data and trends since it is likely that sources would be unwilling to rely on the revised values prior to SIP approval.

RESPONSE: We do agree with the commenter's claims that the SIP approval status of the revised minor NSR permitting thresholds and *de minimis* change levels impacts the validity or persuasiveness of the data included in the emissions inventory and monitoring trends analyses. While the revised *de minimis* change rule provisions are not approved into the current Arkansas SIP, they are adopted by the state into the state regulations and thereby state law. The CAA

[10] EPA's review of the monitoring and modeling analyses is detailed in Pages 27-33 of the Technical Support Document that accompanied our proposed rulemaking and if available in the docket.

requires states to adopt, after reasonable notice and public hearings, revised regulations for submission to EPA as SIP revisions. (See CAA 110(a)(1)). Since adoption of the revised permitting thresholds and *de minimis* change levels into their states regulations, Arkansas has been implementing those revised levels through the issuance of Reg. 18 registrations and *de minimis* change approvals. Lookback information regarding the historical *de minimis* change approvals was specifically cited in the emissions inventory analysis portion of the 110(l) demonstration. The calendar year (CY2016) *de minimis* change approvals included approval issued based on the revised thresholds that were adopted as state law December 2008 (effective January 2009). ADEQ has subsequently provided more information regarding the number of Reg. 18 registrations (issued to those sources exempt from minor NSR permitting with emissions that fall within the old and revised permitting thresholds) submitted and *de minimis* change approvals issued since the adoption of the revised regulations. This additional lookback information clearly indicates that sources have been utilizing the revised thresholds – 75 registrations have been submitted since the permitting thresholds were revised and 476 *de minimis* change actions have taken place since 2010.[11] Because state law requires that if a source used either the minor NSR permitting thresholds or *de minimis* changes levels to avoid minor NSR permitting the source must submit the required registration (in accordance with Reg. 19.417 and Reg. 18.315) or obtain the required approval (in accordance with Reg. 19.407(C)(6)), a source not accounted for in the lookback information provided by ADEQ would have been, and still is, in violation of state law. Furthermore, ADEQ has indicated that since the adoption of the revised minor NSR permitting thresholds and *de minimis* change levels, they are not aware of any instance where a source has been unwilling to utilize the revised thresholds because of the

[11] The number of Reg. 18 registrations submitted and *de minimis* change actions provided via emails received from Ms. Tricia Treece, ADEQ, on July 5, 2017.

status of the revisions with respect to the SIP.[12] Based on the historical information provided, we find that the data included in the emissions inventory and monitoring trends analyses is valid and reflects the reality and do not agree with the commenter that nothing can be inferred from those analyses regarding the impacts of the revised minor NSR permitting thresholds and *de minimis* levels. Following adoption of the revised permitting thresholds and *de minimis* change levels in 2008, Arkansas began implementing the revised provisions (at the owner or operator's own risk of federal enforcement) to exempt qualifying sources from minor NSR permitting requirements. The persuasiveness of data used in the monitoring trends analysis is not dependent on the SIP approval status.

COMMENT: The commenter stated that the *de minimis* exemption is based on a comparison of allowable emissions increases, thus it could allow larger increases in actual emissions than the tpy emissions thresholds in Reg. 19.407(C). Thus, the commenter states that any analysis, including the emissions inventory analysis, presented by ADEQ about the thresholds is not sufficient to ensure that the actual emissions increases allowed by the *de minimis* exemption will not threaten NAAQS attainment or maintenance or otherwise interfere with the control strategy. Similarly, the commenter also stated that the photochemical modeling also did not model the true increase in emissions that could be allowed – the actual emissions increases resulting from a *de minimis* change could be significantly higher than the *de minimis* levels and the actual emissions from a new source could exceed projected actuals that were used as a basis to exempt the source from permitting.

[12] Information regarding source inquiries to utilize SIP-approved thresholds instead of revised thresholds provided during telephone discussion between Ms. Ashley Mohr, EPA, and Mr. Thomas Rheaume and Ms. Tricia Treece, ADEQ, on March 16, 2018.

RESPONSE: We do not agree with the commenter that the emissions inventory analysis and modeling analysis provided by ADEQ is not sufficient to support the proposed revisions to the *de minimis* change levels. Also, we do not agree with the commenters that the analysis provided by Arkansas did not model the true increase in emissions that could be allowed under Arkansas' relaxed minor NSR program (i.e., those emissions exempt from minor NSR permitting requirements based on the revised permitting thresholds and *de minimis* change levels) under the revised minor NSR program. As stated in our proposed rulemaking, the *de minimis* change levels listed in Reg. 19.407(C)(2)(a) are the maximum increases in permitted emission rates that can be exempt from minor NSR permitting requirements via the *de minimis* change rule. As such, to demonstrate that the proposed SIP revision resulting in revised *de minimis* change levels will not interfere with NAAQS compliance, it is reasonable that the 110(l) demonstration should evaluate the projected impacts resulting from the maximum emission increases allowed by the revised rule (i.e., the *de minimis* change levels). As documented in the modeling report submitted as part of the March 24, 2017 SIP revision submittal, Arkansas did follow this approach in their 110(l) demonstration and evaluated the impacts resulting from emission rates equal to the *de minimis* change levels. (See the March 24, 2017 SIP Revision Submittal, Appendix D – Air Quality Modeling Analysis of Minor Source Permit Thresholds.) When a source seeks authorization for a proposed change at a facility via the *de minimis* change provision, they are requesting authorization specifically for the increase in the permitting emission rates. The previously permitted emission rates underwent a previous minor NSR permitting review and were demonstrated to be in compliance with the NAAQS. Evaluation of emissions accounted for in the pre-*de minimis* change permitted emission rates, which were previously authorized and evaluated for NAAQS compliance under an existing permit, are beyond the scope of the 110(l)

analysis for the revised *de minimis* change levels. Therefore, a NAAQS demonstration associated with the potential impacts from a *de minimis* change should be based on the magnitude of increases in the permitted emission rates, which are being authorized via the *de minimis* change rule. With respect to the photochemical modeling, the purpose of the modeling analysis submitted by Arkansas was to demonstrate that those emissions exempt from permitting based on the revised thresholds would not cause a NAAQS violation.

In the case of a new source that has actual emissions in excess of the minor NSR permitting thresholds without an issued permit authorizing those emissions, the source would be in violation of the minor NSR permitting requirements contained in Reg. 19, Chapter 4, and they could be subject to an enforcement action. For example, if a source was initially constructed as a seasonal source with emission below the de minimis levels, it is exempt from permitting. However, if the source's actual emissions rise above those levels without first obtaining a permit, it would be in violation of minor NSR. It is reasonable (for the purposes of demonstrating compliance with 110(l)) to assume a new source would be required to obtain a permit to authorize the emissions and demonstrate they will not cause or contribute to a violation of a NAAQS if they have actual emissions above the minor NSR permitting thresholds. Therefore, the scenarios involving potentially violating sources are not a reasonable scenario to be included in an analysis conducted to support the minor NSR permitting thresholds.

In the case of a *de minimis* change, the emissions exempt from minor NSR permitting by the *de minimis* change rule are the increases in the permitted emission rates. For the *de minimis* revisions to be approvable the analysis should demonstrate that the increases in the permitted emissions will not cause a NAAQS violation. By modeling the minor NSR permitting thresholds and *de minimis* change levels for each pollutant, Arkansas did evaluate the prospective impacts

associated with the emission levels that could qualify for exemption from minor NSR permitting requirements under the revised rule.

COMMENT: The commenter stated that the analysis of the *de minimis* increases allowed (based on the 2016 *de minimis* approvals) is not persuasive because 2016 only reflects one year of implementation and this rule will be in effect for the foreseeable future.

RESPONSE: We do not agree with the commenter that the emissions inventory analysis for the *de minimis* changes is not persuasive because it is limited to 2016. CY2016 provides a portion of time when the revised thresholds were being relied upon by owners and operators in Arkansas. The review of emissions associated with *de minimis* changes limited to CY2016 found that the 2016 emissions inventory analysis shows the percentage of statewide emissions exempt by the *de minimis* change levels in the range of 0.0005 to 0.019%. While the analysis was limited to one calendar year, as discussed in our proposal, at these percentage levels it would require over 50 times the NO_X emissions authorized in 2016 to approach 1% of the statewide emissions and over 300 times the emissions for the other pollutants. In addition, this analysis conservatively did not account for any emissions decreases occurring as part of the approved *de minimis* changes. In addition, the analysis for 2016 was conservative in that it did not account for emissions decreases that did occur as part of the *de minimis* changes. We believe that additional analysis beyond one calendar year is unnecessary because the CY2016 data, that did not account for any associated emissions decreases, shows that exempt emissions makes up such a small fraction (much less than 1% for all pollutants) of the total statewide emissions.

COMMENT: The commenter restates that a comparison of emissions that could be exempt from minor NSR permitting based on the revised *de minimis* change levels with total statewide emissions does not give any indication of whether the exempt emissions would interfere with

attainment or maintenance of the NAAQS because of the various factors (such as: stack parameters, operational stages, topography, and meteorology) that dictate ambient impacts. Because of the variability of these factors between sources, the commenter stated that the fact that two sources have similar annual emissions is not a rational basis to claim that they have similar ambient impacts.

RESPONSE: We do agree with the commenter that a variety of factors may dictate ambient impacts, and that reliance on the state's emissions inventory analysis does not demonstrate non-interference with the NAAQS. Instead, the emissions inventory analysis serves to determine the scope, or portion, of emissions that would not undergo minor NSR permitting based on the revised thresholds. However, the state did not only rely upon the emissions inventory analysis to demonstrate NAAQS compliance. The state addressed ambient concentrations and potential ambient impacts by looking specifically at the current status of ambient air quality, the historical ambient air quality trends since adoption in 2008 and the on-going implementation of the revised *de minimis* levels, and the potential impacts of the exempt emissions on ambient air quality via local dispersion (AERMOD) and regional photochemical (CMAQ) air quality modeling. As previously discussed in our responses, the monitoring analysis shows that since the adoption and implementation of the revised permitting thresholds and *de minimis* change levels the overall trends in DVs are either unchanged or decreasing. Meanwhile, the local and regional modeling analyses show that model predicted concentrations resulting from the addition of the emissions exempt from permitting remain less than the NAAQS. (See the March 24, 2017 SIP Revision Submittal, Appendix D – Air Quality Modeling Analysis of Minor Source Permit Thresholds.) While the emissions inventory analysis served to determine the scope, or portion of emissions that would not undergo minor NSR permitting requirements based on the revised *de minimis*

change levels relative to the statewide emissions, the monitoring and modeling analyses completed as part of the 110(l) analysis accounted for the various factors cited by the commenter in evaluating the impacts of the revised *de minimis* levels. Specifically, the results from the air quality modeling analyses were impacted by the following factors, which are included as air quality model inputs: emissions, stack parameters, topography and meteorology.

COMMENT: The commenter stated that there are numerous other factors that came into play during the same timeframe that could cause pollutant concentrations to decrease in the timeframe right after the December 2008 adoption of the minor NSR rule relaxations, including: the Great Recession began in 2007 and continued through 2009; natural gas prices dropped significantly and renewable sources of power generation became more competitive, reducing demand for coal-fired power plants which was replaced by gas turbines and renewables; various vehicle emission and liquid fuel standards came into effect; and less fuel efficient vehicles were replaced with more fuel efficient vehicles.. The commenter stated that these factors make it very difficult for ADEQ to infer anything regarding the relaxations to its minor NSR program through the review of how air monitoring design values have changed over time.

RESPONSE: We agree that the monitoring data reflects not only the impacts of the revised thresholds and *de minimis* levels, but other factors such as those cited by the commenter as well. However, the monitoring analysis does show that since Arkansas' adoption in 2008 and ongoing implementation of the revised values, the monitored ambient concentration data shows no NAAQS issues along with overall decreasing trends in DVs for some pollutants indicative of improved air quality since 2008. The monitoring analysis submitted by Arkansas spanned eight years of ambient data (2007 – 2014, which includes and extends beyond the time period referenced as "the Great Recession" by the commenter). The 8-year period covered in the

ambient monitoring study is a reasonable and representative period of time to examine the impacts of the revised thresholds while also accounting for the variability in the other factors that may contribute to ambient concentrations. Further, we would like to point out that a NAAQS demonstration, including demonstrations of non-interference with attainment or maintenance of the NAAQS under section 110(l), should reflect ambient air quality as a whole, which would take into account the impacts on ambient concentrations resulting from the revised minor NSR regulations, as well as, the other factors mentioned by the commenter. As shown in the referenced monitoring analysis, the resulting ambient concentrations including the impacts from the minor NSR program revisions do not indicate NAAQS compliance issues. As stated in our proposal, the monitoring trends analysis is one part of the demonstration provided by Arkansas that supports the finding that the revised permitting thresholds and *de minimis* levels will not adversely impact NAAQS attainment or maintenance. In addition to the monitoring analysis, the modeling analysis is an important element of the NAAQS compliance demonstration and as discussed in our proposed rulemaking and previous responses, the modeling results indicate that the addition of the emissions exempt from minor NSR permitting requirements will not interfere with NAAQS compliance. (See the March 24, 2017 SIP Revision Submittal, Appendix D – Air Quality Modeling Analysis of Minor Source Permit Thresholds.)

COMMENT: The commenter stated that because the state does not have a monitoring network that covers all pollutants and all areas of the state where industrial sources are constructing and operating, a review of the monitoring data from Arkansas monitors provides an incomplete picture of the NAAQS attainment status around the state.

RESPONSE: We do not agree that Arkansas' submittal provided an incomplete picture of NAAQS attainment around the state. The ambient monitoring analysis was one part of the

demonstration provided by the state to meet the 110(l) requirement. The monitoring trends analysis discussion included in Appendix C of the March 24, 2017 SIP revision submittal includes a figure showing the Arkansas Ambient Air Monitoring Network. This network includes ambient monitoring for the NAAQS[13] at monitoring sites located throughout the state in accordance with federal requirements[14]. The State of Arkansas' ambient air monitoring network is reviewed each year to ensure the air quality surveillance system continues to meet applicable requirements. The most recent review of the ambient air monitoring network for Arkansas, the 2017 Annual Monitoring Network Plan, was reviewed and approved by EPA on October 3, 2017, as meeting the requirements of 40 CFR and its appendices. The analysis of the available monitoring data does provide valuable information about the current ambient air quality in the state, and the historical trends analysis of the data shows that since the adoption in 2008 and the ongoing implementation of the revised exemption thresholds, ambient air quality has not been adversely impacted. In fact, as discussed in our proposed rulemaking, for several pollutants the ambient air quality has shown continued improvements since the state adoption and implementation of the revised thresholds. This information was supplemented by the additional analyses conducted by Arkansas, one of which specifically addresses the comment regarding the completeness of the picture of attainment status around the state. As discussed in our proposed rulemaking, Arkansas completed a modeling analysis to determine the potential impacts from sources exempt from permitting based on the revised minor NSR permitting thresholds and *de minimis* change levels, which included statewide modeling. (See the March 24, 2017 SIP

[13] EPA has set National Ambient Air Quality Standards for six principal pollutants, called criteria pollutants: Carbon Monoxide (CO), Lead (Pb), Nitrogen Dioxide (NO_2), Ozone (O_3), Particulate Matter (PM), and Sulfur Dioxide (SO_2), as indicated in 40 CFR Part 50 and appendices.

[14] See 40 CFR Part 58 and its appendices for federal requirements related to measuring ambient air quality and for reporting ambient air quality data and related information.

Revision Submittal, Appendix D – Air Quality Modeling Analysis of Minor Source Permit Thresholds.) Arkansas conducted photochemical modeling to support the revised thresholds based on a previous statewide modeling effort conducted for the 2008 base year and the 2008/2015 future year scenarios. For the minor NSR thresholds analysis, the future year (2015) emissions inventory was modified to include eight hypothetical point sources that were distributed throughout the state's Air Quality Control Regions. The emission rates for each of the hypothetical sources were set equal to the revised minor NSR permitting thresholds and *de minimis* levels. The statewide maximum impacts for each day resulting from the hypothetical sources was added to the unmodified future year concentration for each day and grid cell. The resulting concentrations represented the maximum ambient concentrations including impacts from the threshold emission increases at any location located throughout Arkansas. While the results from the photochemical modeling showed that while the addition of the hypothetical source emissions may increase the predicted concentrations within most grid cells, the calculated FDVs were still less than each of the NAAQS at each monitoring site. (See the March 24, 2017 SIP Revision Submittal, Appendix D – Air Quality Modeling Analysis of Minor Source Permit Thresholds.)

COMMENT: The commenter stated that it is not appropriate to rely on a modeling assessment intended to estimate future pollutant concentrations out to 2015 to assess whether Arkansas' relaxed minor NSR program will interfere with attainment or maintenance of the NAAQS. The commenter based their statement on the possibility that some of the rules that were relied on for the 2015 emission inventories could go away, the possibility of an economic boom in the state, the possibility of growth in a certain type of industry, or a combination of these events, which in

turn could result in the approval of this SIP relaxation interfering with attainment or maintenance of the NAAQS in the future despite the CMAQ (photochemical) modeling predictions for 2015.

RESPONSE: We do not agree with the commenter that the use of the future year (FY) modeling for 2015 is not appropriate.[15] Arkansas submitted several analyses as part of the 110(l) demonstration, with the modeling assessment being one part of the demonstration submitted to support the proposed revisions to the Arkansas SIP. As such, our determination regarding the approvability of the SIP revisions relied on the combined demonstration and not just one element. Regarding the use of the future year modeling, Arkansas used this modeling in combination with the baseline modeling to determine RRFs both with and without the hypothetical exempt sources to calculate FDVs)[16,17,18] These FDVs were used to compare and contrast those DVs and determine the potential impacts of the exempt sources. This approach allowed for a quantitative comparison to determine what potential impacts would be expected from the additional emissions associated with sources and/or *de minimis* changes that would be exempt from minor NSR permitting requirements based on the revised thresholds. The

[15] Arkansas's initial statewide criteria pollutant modeling was conducted prior to 2015 using base case years of 2005 and 2008 and a future year of 2015. The final modeling report detailing this initial modeling entitled "Criteria Pollutant Modeling Analysis for Arkansas" dated July 28, 2014 was included in the March 24, 2017 SIP revision submittal. Arkansas relied upon the 2015 modeling scenario from this statewide modeling as the baseline scenario in the minor NSR permitting thresholds and *de minimis* change levels modeling. They modified the 2015 emissions inventory to include the hypothetical source to represent the addition of emissions from a newly exempt emissions source based on the revised thresholds in order to examine the potential impacts and sensitivity of model predicted ambient concentrations to the exempt emissions.

[16] A RRF is the ratio of future case modeled concentrations to base case modeled concentrations, which is used to quantify the relative impacts of the emissions added to the model. In the photochemical modeling conducted by ADEQ, the base case modeled concentrations are taken from the 2015 modeling without the hypothetical sources added while the future case modeling results are taken from the 2015 modeling plus the 8 modeled hypothetical sources. Therefore, the RRFs calculated in this modeling analysis quantify the relative impacts from the additional emissions from the hypothetical sources that would be exempt from permitting based on the new thresholds/*de minimis* levels.

[17] RRFs can be used to estimate FDVs, which are determined by applying the RRF ratios to monitored design values from the base year taken from ambient monitoring data.

[18] Arkansas applied the RRFs derived from the 2015 baseline and 2015 baseline with hypothetical sources modeling analyses to calculated FDVs at all ambient monitoring locations for each pollutant. The difference between these FDVs represents the impacts from the hypothetical source emissions on ambient air quality. Appendix D of the March 24, 2017 SIP revision submittal contains the details of this analysis including the calculated RRFs and FDVs.

quantitative comparison provided information regarding relative difference in impacts both with and without the newly exempt emissions compared with the NAAQS. When conducting future year modeling, informed assumptions must be made and some of these assumptions may differ from the actual real world conditions present when the future year becomes the present. [19] However, it is important to note that the future year modeling approach was conducted in order to quantify the relative change in ambient concentrations resulting from the added potential impacts from the newly exempt sources using RRFs. Specifically, this analysis results in the calculation of FDVs both with and without the hypothetical source emissions and the difference between the FDVs represents the modeled predicted impacts from those emissions on ambient concentrations. The results of this quantitative comparison of ambient impacts with and without the newly exempt sources are not expected to deviate significantly, even with actual real world conditions potentially being different than the assumed modeled conditions, since the analysis focused on the relative impacts of the addition of the hypothetical source emissions. We believe that the future year modeling approach used by Arkansas that focused on the quantitative difference in the relative ambient impacts with and without the hypothetical sources is reasonable and informative for a 110(l) demonstration in that it specifically evaluated the impacts from newly exempt emissions based on revised minor NSR permitting thresholds and *de minimis* levels. The concerns raised by the commenter regarding the state's ability to predict the exact conditions of a future year do not change our determination that this approach is reasonable. In fact, the inclusion of informed assumptions in a future year modeling analysis is

[19] The methodology used by Arkansas to develop the modeled future year 2015 emissions inventory is detailed in Section 3.6 of the "Criteria Pollutant Modeling Analysis for Arkansas" report provided in Appendix D of the March 24, 2017 SIP revision submittal. The 2015 emissions inventory was assumed equal to the 2014 emissions inventory with no further adjustments that were prepared based on as part of the EPA's 2005-based platform, which included future year cases developed from it, that was used in the Final Transport Rule modeling (available at ftp://ftp.epa.gov/EmisInventory/2005v4_2/). Arkansas did adjust the emissions inventory to include a new facility (AEP Service Corporations' John W. Turk, Jr. facility located in southwestern Arkansas.

not only reasonable, but also necessary, since neither we nor Arkansas can know with any certainty what emissions and/or sources may change in the future. The inclusion of informed assumptions in the modeling analysis provides a reasonable estimate of future levels, given the inability to foresee the future. If ADEQ modified or removed any SIP-approved regulations (as relied upon to make these assumptions) and relax the SIP and render them substantially inadequate to attain or maintain the relevant NAAQ's standard, EPA has the authority to publish a SIP call Federal Register notice requiring the state to adopt and submit a 110(l) justification for the relaxation. Regarding the commenter's concern with potential boom in industrial growth, those sources seeking a construction permit, such as a PSD permit, would have to demonstrate NAAQS compliance as part of their permit application modeling. As such, we find that the state's analysis based on future year photochemical modeling, along with the additional modeling, monitoring, and emissions inventory analyses, demonstrate that the revised thresholds are not expected to adversely impact the state's ability to attain and maintain the NAAQS.

COMMENT: The commenter stated that photochemical modeling submitted by Arkansas in support of the SIP revisions does not give a rational picture of the effect the SIP relaxations could have on air quality in Arkansas. The commenter stated that first, there could clearly be more than 8 sources, which was the number of sources included in the photochemical modeling, exempt from permitting under the revised minor NSR rules. The commenter also stated that the photochemical modeling did not model the worst case conditions such as terrain, stack height, stack temperature and velocity.

RESPONSE: While we agree with the commenters that the potential number of exemptions resulting from the revised rule may not be limited to 8 sources, we do not agree with their assessment that the modeling analysis was limited to the impacts from only those 8 sources.

Arkansas submitted statewide modeling that accounted for cumulative impacts from the 8 hypothetical sources along with the emissions contained in the statewide emissions inventory. (See the March 24, 2017 SIP Revision Submittal, Appendix D – Air Quality Modeling Analysis of Minor Source Permit Thresholds.) The 8 modeled sources were distributed throughout the state's Air Quality Control Regions. The modeling results showed the impacts of the addition of these eight hypothetical sources to the predicted ambient concentrations. In addition, the modeling extrapolated for the maximum modeled impacts from the hypothetical sources applied at each modeled grid cell throughout the state. In addition to examining the modeled impacts from these 8 hypothetical sources in their chosen locations in the Air Quality Control Regions, the modeling analysis conducted by Arkansas also looked at the impacts of sources with emissions equal to the revised thresholds throughout the state. This analysis was accomplished by determining the statewide maximum modeled impacts in the photochemical modeling for each day resulting from the hypothetical sources and adding those impacts to the unmodified future year concentration for each day and grid cell. This approach allowed the examination of the maximum predicted hypothetical source impacts combined at different geographic/topographic locations along with looking at those impacts combined with a variety of cumulative source inventory impacts throughout the state. It is impossible for the state to project each source that may be exempt under the revised rule and unreasonable to expect the inclusion of every potentially exempt source within an air quality modeling analysis. We determined that the approach used by Arkansas to include a number of hypothetical sources throughout the state and to examine the combined impacts of these sources with background emissions sources at each modeled grid cell in Arkansas provides information and a rational picture regarding the potential impacts of newly exempt emissions throughout the state. By modeling these 8

hypothetical sources with emission rates equal to the revised thresholds, the state's approach provided for the examination of the actual model predicted impacts at locations within each Air Quality Control Region from the maximum level of emissions that could be exempt from permitting for a source based on the revised minor NSR permitting thresholds and *de minimis* change levels. As a second step, the approach to apply the daily maximum modeled impacts from the hypothetical sources to each grid cell for each day in the modeled period provided for the examination of the impacts of the exempt emissions at each grid cell throughout the state. In the case of the minor NSR program revisions proposed by Arkansas, the state developed a 110(l) demonstration comprised of air quality modeling, as well as an emissions inventory analysis and a monitoring trends analysis. As stated in our proposed rulemaking, we found in combination that the modeling analysis along with the other analyses submitted by the state demonstrated that the proposed revisions would not interfere with NAAQS attainment or maintenance. Based on our review, we find the analysis conducted and the methods used to be appropriate and sufficient to support the proposed SIP revisions, especially for exemptions from minor NSR permitting requirements that are expected to make up fractional percentages (< 1% for all pollutants) of the total emissions in the statewide emissions inventory – as documented in the state supplied emissions inventory analysis.

Regarding the commenter's statement regarding the modeling of worst-case conditions, we do not agree with the commenter. The modeling of the worst case conditions such as terrain, stack height, stack temperature and velocity is inappropriate for assessing whether the relaxed applicability to Arkansas' minor NSR rule would violate the NAAQs. The hypothetical sources included in the 110(l) demonstration modeling were meant to represent the exempt emissions that could occur from a variety of sources and were being modeled to examine the potential

impacts from exempt emissions as part of the demonstration of non-interference with attainment or maintenance of the NAAQS under CAA section 110(l). Arkansas determined representative values to be used as model inputs for the hypothetical sources by reviewing real world stack parameters available through their emissions inventory data. Based on their review, the state chose the average stack conditions from the emissions inventory data as the representative inputs for the modeled hypothetical sources. As stated in the modeling report included in the March 24, 2017 SIP revision submittal and in our proposed rulemaking, the state modeled the hypothetical sources with the maximum emissions exempt by the rule (i.e., emissions equal to the thresholds values), even though not all exempt sources would have those emissions levels.

The use of the worst case conditions (as referenced by the commenter) is typically applied in modeling for an existing source or a proposed source of known type/size and location as part of a case-by-case NSR modeling analysis, such as a modeling analysis completed as part of a PSD permit action. In the case of the modeling analysis conducted by Arkansas to support the proposed SIP revisions, the state was examining the potential impacts of emissions exempt from minor NSR permitting by adding hypothetical exempt sources to represent those added emissions in the modeled emissions inventory. The modeling conducted by Arkansas as part of the 110(l) demonstration modeling serves a different purpose, and therefore is inherently different than PSD permit modeling. PSD permit modeling is conducted as part of the source analysis PSD requirement (40 CFR 51.21(k)) to examine the impacts from the construction or major modification of a specific, known PSD source where model inputs are based on the actual design and operational parameters of the emission points located at the source. That said, we do not agree that the modeling analysis conducted by Arkansas did not take terrain into account. As discussed previously in this response, at least one of the modeled hypothetical sources was

located in each of the AQCRs. This allowed the examination of model predicted impacts across the different geographic and topographic areas in the state, including those areas in NW Arkansas with more elevated/complex terrain (1 source located in AQCR 17 and 2 sources located in AQCR 21), which are expected to have higher impacts. As discussed in our evaluation of the photochemical modeling conducted by Arkansas, the model predicted impacts from the hypothetical sources did not indicate any model predicted violations of the NAAQS for any pollutant or averaging period. The photochemical modeling approach was one element of the 110(l) demonstration provided by the state to support the proposed SIP revisions. The approaches used by Arkansas in their modeling demonstration to determine the potential impacts from the newly exempt emissions were reasonable and appropriate for 110(l) analysis being conducted to demonstrate non-interference, especially considering the small amounts of emissions expected to be exempt from minor NSR permitting based on the revised rule relative to the current statewide emissions.

COMMENT: The commenter stated that the photochemical modeling gave no justification for where it located the sources within the state and it is not clear if the sources were located in areas where the source's plume could cause high concentrations due to nearby elevated terrain or in areas where there are other significant sources of air pollutants to determine the cumulative impacts.

RESPONSE: We do not agree with the commenter that no justification was provided for the location of the hypothetical sources within the photochemical modeling. Arkansas did state that they placed at least one source in each of their Air Quality Control Regions. They also stated that the sources were typically located in or near more urban areas of the state. A figure was included in the modeling report showing the location of the modeled sources relative to the populated

areas in the state, which are also more likely to have larger "background" emissions within the modeled emissions inventory. (See the March 24, 2017 SIP Revision Submittal, Appendix C – 2010 Minor NSR Permitting Thresholds and *De Minimis* Levels SIP Technical Support Document, Figure 19.) The chosen locations allowed for the examination of impacts throughout the various regions of the state, focused on the more populated areas. As stated in our previous response, two of the modeled hypothetical sources were included in the areas in NW Arkansas with more elevated/complex terrain (1 source located in AQCR 17 and 2 sources located in AQCR 21). Additionally, the modeling approach used by the state in their 110(l) demonstration included a separate analysis to specifically examine the model predicted concentrations at each grid cell throughput the state when the maximum modeled impacts from the hypothetical sources were applied. This approach allowed the examination of the maximum hypothetical source impacts combined at different geographic locations along with looking at those impacts combined with a variety of cumulative source inventory impacts throughout the state.

COMMENT: The commenter stated that the photochemical modeling did not attempt to take into account the cumulative impacts of exempt sources or modifications, and it did not include the possibility of multiple exempt sources locating nearby each other, nor did the modeling attempt to model more than one exemption at a single or multiple sources over time.

RESPONSE: As discussed previously in our responses, we do not agree that cumulative impacts analysis was not conducted as part of the state's modeling analysis. The photochemical modeling analysis combined the impacts from the hypothetical sources with the impacts of background emissions inventory sources via emissions inventory model inputs.[20] Further, this cumulative

[20] As discussed in Arkansas's "2010 Minor NSR Permitting Thresholds and *De Minimis* Levels SIP Technical Support Document" (Appendix C to March 24, 2017 SIP revision submittal), the CMAQ photochemical modeling requires as input, hourly, gridded pollutant emissions from both anthropogenic and biogenic sources.

impacts analysis was conducted in such a way as to examine the maximum modeled impacts from the hypothetical sources with the impacts from the background emissions inventory sources at each grid cell in the state. Regarding the cumulative impacts from multiple exempt sources potentially located nearby each other, the modeling report included in the March 24, 2017 SIP revision submittal stated that "since the modeled impacts occur within or nearby the source location, cumulative effects from multiple sources in multiple grid cells are expected to be small." Based on the 110(l) demonstration provided by Arkansas, which included modeling that looked at cumulative impacts from hypothetical exempt sources and the background emissions sources inventory, we do not find the revised thresholds to adversely impact the NAAQS.

COMMENT: The commenter stated that there is no indication that the modeling took into account variability of emission rates over time to account for the very likely possibility that an exempt source could emit at higher rates over shorter periods of time rather than emitting at a consistent level.

RESPONSE: It is unreasonable to expect the type of modeling conducted by Arkansas to examine the potential impacts of a small subset of minor sources that make up much less than 1% of the total emissions in the statewide emissions inventory (less than or equal to 0.125% of the statewide emissions for minor NSR permitting thresholds; less than or equal to 0.019% of the statewide emissions for *de minimis* change levels) to include variable emissions modeling. The evaluation of impacts from variable emission rates is typically associated with modeling an existing source or a proposed source of known type/size and operation as part of a case-by-case NSR modeling analysis (such as the modeling conducted for PSD permitting). As stated in our previous responses, the modeling analysis conducted by Arkansas as part of the SIP revision submittal was completed as part of a 110(l) demonstration for the purposes of determining the

potential impacts of the revised missions exempt from minor NSR permitting by adding hypothetical exempt sources to represent those added emissions in the modeled emissions inventory. Modeling conducted as part of the 110(l) demonstration is conducted to determine whether a SIP revision will interfere with attainment or maintenance of the NAAQS, any required milestone, or any other requirement of the Act. Because the modeled sources were hypothetical in nature, source-specific information including emission rates and their potential variability, cannot be available, nor does it need to be. As stated in the modeling report included in the March 24, 2017 SIP revision submittal and in our proposed rulemaking, in the modeling analysis the hypothetical source emission rates were set equal to the revised minor NSR permitting thresholds and *de minimis* change levels to examine the potential impacts resulting from the newly exempt emissions. (See the March 24, 2017 SIP Revision Submittal, Appendix D – Air Quality Modeling Analysis of Minor Source Permit Thresholds.) The approaches used by Arkansas in their modeling demonstration to determine the potential impacts from the newly exempt emissions were reasonable and appropriate for the type of analysis being conducted, especially considering the relatively small amount of emissions expected to be exempt from minor NSR permitting based on the revised rule compared to statewide emissions.

COMMENT: The commenter stated that because presumably the same emission rates, stack parameters, and sources locations were modeled with AERMOD (dispersion model) as were modeled in the CMAQ photochemical modeling. Therefore, they stated that all of the prior comments raised with the CMAQ (photochemical) modeling also apply to the AERMOD (dispersion) modeling results. The commenter also stated that there is no indication that the air dispersion modeling accounted for impacts from startup, shutdown and malfunction emissions.

RESPONSE: The comments raised on the CMAQ photochemical modeling were addressed above. Those responses would also apply to the AERMOD dispersion modeling, with some slight clarifications due to the inherent differences between photochemical and dispersion modeling analyses. We provide the following clarification related to the comments raised on cumulative impacts analyses since the CMAQ photochemical modeling and AERMOD dispersion modeling have different approaches to account for cumulative impacts because the models differ on how off-site background sources emissions inventories are represented and how impacts are determined. As discussed in the modeling report included in the March 24, 2017 SIP revisions submittal, the CMAQ photochemical modeled concentrations/impacts from the background emissions inventory sources were included as background values in the AERMOD dispersion modeling and added to the AERMOD dispersion modeled concentrations from the hypothetical sources to determine cumulative impacts from the exempt emissions and the off-site emissions. (See the March 24, 2017 SIP Revision Submittal, Appendix D – Air Quality Modeling Analysis of Minor Source Permit Thresholds.) Although these approaches differ because of the nature of the modeling system used, both the CMAQ photochemical and AERMOD dispersion modeling analyses include the cumulative impacts of the hypothetical sources plus the background emissions inventory sources.

Regarding the modeling of impacts from startup, shutdown and malfunction emissions, the evaluation of impacts from routine and/or predictable startup and shutdown emissions would be associated with modeling an existing source or a proposed source of known type/size and operation as part of a case-by-case NSR modeling analysis, such as PSD permit modeling.[21] The

[21] Any emissions resulting from unplanned startup or shutdown activities or from malfunctions, and therefore not accounted for in the NSR permit authorization, would be considered violations of the SIP unless these emissions limits are reflected in a NSR SIP or a SIP rule.

routine and predictable startups and shutdowns are permitted emissions which are accounted for in the emissions inventory. As stated in our previous responses, the hypothetical sources included in the 110(l) demonstration modeling were meant to represent the exempt emissions that could occur from a variety of sources and were being modeled to examine the potential impacts from exempt emissions. Because the modeled sources were hypothetical in nature, information regarding source inputs including a small subset of their emissions such as source-specific startup, shutdown and malfunction emissions, was not available, nor should it be. Further, the emissions expected to be exempt from minor NSR permitting based on the revised permitting thresholds and *de minimis* levels made up much less than 1% of the total statewide emissions (less than or equal to 0.125% of the statewide emissions for minor NSR permitting thresholds; less than or equal to 0.019% of the statewide emissions for *de minimis* change levels) meaning that the startup, shutdown and malfunctions being a small subset of total emissions would make up an even smaller fraction of the statewide emissions. The commenter's expectation for this type of analysis is unreasonable on the basis that these emissions make up such a small fraction of the statewide emissions (that is, a small subset of the total exempt emissions that are anticipated to make up much less than 1% of the statewide emissions). As stated in the modeling report included in the March 24, 2017 SIP revision submittal and in our proposed rulemaking, the hypothetical source emission rates were set equal to the revised minor NSR permitting thresholds and *de minimis* change levels to examine the potential impacts resulting from the newly exempt emissions. The approaches used by Arkansas in their modeling demonstration to determine the potential impacts from the newly exempt emissions were reasonable and appropriate for the type of analysis being conducted, especially considering the

relatively small amount of emissions expected to be exempt from minor NSR permitting based on the revised rule compared to statewide emissions.

COMMENT: The commenter stated that the dispersion modeling did not include the modeling of line sources and that fugitive PM_{10} emissions often cause increment and NAAQS violations. Therefore, the commenter claims that the AERMOD (dispersion) modeling does not reflect reasonable worst case impacts that could occur due to the sources and *de minimis* changes exempt from minor NSR based on the SIP revisions.

RESPONSE: As discussed in our previous responses, the worst case impacts conditions (or potential worst case source type in the case of this comment) referenced by the commenter are typically associated with case-by-case NSR modeling of an existing source or a proposed source with known stack/emission characteristics (such as, modeling associated with a PSD permit action). This would also be the case for the modeling of line sources mentioned by the commenter. The 110(l) demonstration modeling conducted by Arkansas in support of the SIP revisions has a different purpose and associated requirements than case-by-case NSR modeling. As discussed in our earlier response to the comment raised regarding worst case stack parameters, Arkansas relied on real world stack parameters available in their emissions inventory data to determine representative stack parameters to represent emissions newly exempt from minor NSR permitting via the inclusion of hypothetical sources in their modeling analyses. Specifically, they reviewed the stack parameters and determined the average stack parameters included as hypothetical point sources with emissions set equal to the minor NSR permitting thresholds and *de minimis* change levels. Because the modeled sources were hypothetical in nature, source-specific information including whether or not any portion of the emissions were fugitive in nature (such as road emissions) versus stack emissions, cannot be available, nor does

it need to be. Modeling of hypothetical sources with emissions rates set equal to the revised minor NSR permitting and *de minimis* change thresholds ensures that the analysis accounts for the maximum amount of emissions that would be exempt from minor NSR permitting based on the revisions. The approaches used by Arkansas in their modeling demonstration and their reliance on representative stack parameters to determine the potential impacts from the newly exempt emissions were reasonable and appropriate for the type of analysis being conducted, especially considering the relatively small fraction of emissions expected to be exempt from minor NSR permitting based on the revised rule compared with statewide emissions.

COMMENT: The commenter stated that the revised Arkansas NSR program conflicts with the requirements of section 110(2)(C). More specifically, the commenter stated that the *de minimis* change exemptions will exempt most if not all modifications at existing major stationary sources from minor NSR permitting. They indicate that this is in direct contrast with the intention for the new source review program required by CAA section 110(a)(2)(C) and 40 CFR 51.160 to be a backstop on threats to attainment or maintenance of the NAAQS posed by new source growth that is not planned for in existing SIP rules.

RESPONSE: We do not agree with the commenter that the *de minimis* exemptions will exempt most if not all modifications at existing major stationary sources from minor NSR permitting. As previously stated in our responses, the SIP-approved Arkansas NSR program is comprised of two types of review: "Minor Source Review" and "Major Source Review". Arkansas operates a so-called "merged, one permit" system, which is divided into these two types of review based on whether a source is required to obtain a title V operating permit. As such, "Minor Source Review", which is contained in Reg. 19, Chapter 4, applies only to those *sources* that are not

subject to title V permitting and require only a title I minor NSR authorization.[22] Any source that would be a major source for purposes of PSD review would also be a major source subject to title V permitting. *Compare* 40 CFR 52.21(b)(1) (establishing major source thresholds of 100 and 250 tons per year) *with* Reg. 26, Chapter 2 (defining major sources to include, *inter alia*, any source with the potential to emit 100 tons per year). Therefore, any source subject to title V, which would include any new PSD major source and/or any modification to an existing PSD major source, cannot utilize the *de minimis* change exemption found at Reg. 19.407(C). Instead, all modifications at title V sources that are not be subject to Reg. 19, Chapter 9 would instead be subject to the "Major Source Review" requirements found in Reg. 26 and incorporated by reference in Reg. 19, Chapter 11 and cannot use the *de minimis* change provisions, which are limited to "Minor Source Review" in Chapter 4 of Reg. 19. The revisions addressed in our proposed rulemaking are limited to "Minor Source Review" under Chapter 4 of Reg. 19 and do not impact "Major Source Review" in Chapter 11, which has already been approved into the SIP as part of Arkansas' minor NSR program, most recent approval on March 4, 2015 (See 80 FR 11573), and which contains the permitting requirement provisions applicable to the modifications not subject to Reg. 19, Chapter 9 at all title V sources, including all of the sources referenced by the commenter.

COMMENT: The commenter stated that the NSR program required by CAA section 110(a)(2)(C) and 40 CFR 51.160 is intended to be a backstop on threats to attainment or maintenance of the NAAQS posed by new sources growth that is not planned for in existing SIP

[22] As stated in our original SIP approval of Chapter 4, "[a] minor source is any source which does not meet the requirements of a major source. The Act in section 302(j) defines the terms "major stationary source" and "major emitting facility" as "any stationary facility of source of air pollutants which directly emits, or has the potential to emit, one hundred tons per year of more of any air pollutant (including any major emitting facility or source of fugitive emissions of any such pollutant, as determined by rule by the Administrator).""

rules. Because of the commenter's assessment that NSR program is an important part of the SIP, they stated that EPA cannot approve exemptions from a minor NSR program unless it is shown that the exemptions are truly *de minimis* to the purposes of the program.

RESPONSE: We agree that the NSR program is an important part of the SIP but this does not mean that under the CAA and the minor NSR SIP rules, EPA cannot approve exemptions from a *minor* NSR program. Consequently, what is relevant is whether or not the revisions to the Arkansas minor NSR program are approvable under the plain reading of the applicable statute and rules. There is no regulatory or statutory prohibition that prohibits the types and/or sizes of sources that could be exempt from the minor NSR program. In fact, the minor NSR SIP rules at 40 CFR 51.160(e) only require that the minor NSR program include procedures that "identify types and sizes of facilities, buildings, structures, or installations which will be subject to review under this section. [and] The plan must discuss the basis for determining which facilities will be subject to review." These rules furthermore require that the plan must ensure that the issuance of minor NSR permits not result in a violation of the control strategy or interfere with the attainment or maintenance of a national standard. The CAA at section 110((a)(2)((C) requires regulation of the modification or construction of any stationary source within the area *as necessary* (emphasis added) to assure that the standards are achieved. As such, the CAA at section 110((a)(2)(C) and the minor NSR SIP rules found at 40 CFR 51.160-165, as well as case law[23], allow exemptions from a minor NSR permitting program. In cases such as this, where the minor NSR SIP is being revised, the state must also demonstrate that the revisions meet the requirements of CAA section 110(l). Similar to the provisions of the Act and rules discussed

[23] Alabama Power Company, et al., Petitioners,* v. Douglas M. Costle, As Administrator, Environmental Protection Agency, et al., Respondents,*Sierra Club, et al., Intervenors.*, 636 F.2d 323 (D.C. Cir. 1980).

above, section 110(l) requires that EPA cannot approve revisions to the Arkansas minor NSR SIP unless EPA finds that the changes would not interfere with any applicable requirement concerning attainment and reasonable further progress, as well as any other applicable statutory requirement. The clear reading of the Act and the EPA rules are that EPA can approve exemptions to the Arkansas minor NSR SIP program as long as it finds these exemptions will not interfere with attainment or maintenance of a NAAQS or other control strategy. Consistent with what is allowed, Arkansas has identified revised permitting thresholds and *de minimis* change levels to serve as the exemption thresholds for their minor NSR permitting program. To support the revised exemption thresholds, Arkansas provided analyses to define the scope of the exemptions and to demonstrate that these revised thresholds will not adversely impact NAAQS maintenance or attainment. The analyses, which were submitted as part of the March 24, 2017 SIP revision submittal, included: (1) an emissions inventory analysis that determined the percentage of the statewide total emissions inventory that would be newly exempt by the revised thresholds; (2) a monitoring analysis that included a review of the current status of ambient air quality in the state along with a review of the trends in monitoring data since the state adopted and implemented the revised thresholds; and (3) a modeling analysis that examined the impacts of the exempt emissions on ambient concentrations. The analyses provided by Arkansas in the SIP revision submittals show that the minor NSR permitting exemptions resulting from the revised rule were limited in scope and comprised much less than 1% of the total emissions in the statewide emissions inventory and that the impacts from the newly exempt emissions would not adversely impact NAAQS maintenance or attainment, as part of their 110(l) demonstration. The EPA's review of these analyses and our finding that the proposed SIP revisions were approvable

were detailed in the proposed rulemaking and the Technical Support Document accompanying the rulemaking.

COMMENT: The commenter stated that the results from the state's AERMOD (dispersion) modeling show that the exemptions are not "*de minimis*." The commenter also states that the EPA must not approve the revised program because it will interfere with the requirements that SIPs include programs to ensure that new and modified sources not be allowed to construct or modify if they would interfere with attainment or maintenance of the NAAQS.

RESPONSE: Our proposed rulemaking specifically addressed the scope of the exemptions resulting from the revised minor NSR permitting thresholds and *de minimis* levels. As discussed in our proposal, Arkansas provided an analysis to quantify the amount of emissions that would be expected to be exempt from minor NSR permitting requirements relative to total emissions from the statewide emissions inventories. For all pollutants, the exempt emissions for both the permitting thresholds and *de minimis* levels made up a fraction of 1% of the statewide emissions. Therefore, we find that the scope of emissions expected to be exempt from minor NSR permitting as a result of the revised minor NSR program thresholds and *de minimis* change levels is extremely limited. Regarding the commenter's claim that the revised program will interfere with NAAQS attainment or maintenance, the 110(l) demonstration submitted by Arkansas in support of the proposed revisions to the SIP specifically addressed the anticipated impacts on the NAAQS through both a review of the current status of ambient air quality in Arkansas and an evaluation the impacts of the revised thresholds on ambient air quality via air monitoring and air modeling data. As discussed in our proposed rulemaking, based on the ambient monitoring trend analysis, the implementation of the revised minor NSR permitting thresholds and *de minimis* levels following state adoption of the revisions in 2008 and ongoing implementation have not

negatively impacted ambient air quality or interfered with the attainment of the NAAQS. In fact, for several pollutants the ambient air quality has shown continued improvements via decreases in monitored DVs during this period; and currently Arkansas does not have any areas classified as nonattainment for any NAAQS. Our proposal also summarized the air quality modeling results that Arkansas submitted as part of the SIP revisions. The modeling analysis included an evaluation of both statewide regional-scale (photochemical) and local-scale impacts. (See the March 24, 2017 SIP Revision Submittal, Appendix D – Air Quality Modeling Analysis of Minor Source Permit Thresholds.) The photochemical modeling was designed to specifically examine ozone and $PM_{2.5}$, the model also simulates NO_2, SO_2, and PM_{10} so the results for those pollutants were also examined. The maximum photochemical modeling derived impacts including the hypothetical source emissions on daily maximum 8-hr ozone, 24-hr $PM_{2.5}$, and annual average $PM_{2.5}$for any location in Arkansas was calculated. The maximum impacts including hypothetical source emissions on daily maximum 1-hr NO_2 and SO_2 and 24-hr average PM_{10} was also calculated. These maximum impacts were added to the baseline modeled predicted concentrations for each day and grid cell for the future year simulation. The resultant model predicted concentrations represented the future year concentrations assuming the worst-case impacts from the threshold emission increases at any location within the modeling grid. These model results were used in conjunction with the baseline modeling results to calculate the RRFs necessary to estimate FDVs. The FDVs were used to examine whether emission increases less than or equal to the revised thresholds will cause or contribute to a NAAQS violation or interfere with NAAQS maintenance. To further examine the potential near-field impacts from new or existing sources with emission increases less than or equal to the revised permitting and *de minimis* change thresholds, a dispersion modeling analysis was conducted. The dispersion model

was applied for the same hypothetical sources used in the photochemical modeling with emissions set to the revised thresholds. The dispersion model was applied for one year for NO_X, SO_2, CO, and PM_{10}. For each source location, daily concentrations (for the receptor with the maximum annual average value) taken from the dispersion modeling were added to the photochemical model -derived concentrations for that same location. In this manner, the photochemical modeling values were used as "background". The statewide daily maximum impact (maximum over all locations/AQCRs) obtained were expected to represent the near-field future-year concentrations assuming worst-case impacts from threshold emission increases at a range of locations throughout the state. Similar to the photochemical modeling, these maximum impacts were added to the baseline modeled predicted concentrations for each day and grid cell for the future year simulation. The resultant model predicted concentrations represented the future year concentrations assuming the worst-case impacts from the threshold emission increases at any location within the modeling grid. The resultant concentrations were used in conjunction with the baseline modeling results to calculate the RRFs necessary to estimate FDVs. Once again, the FDVs were used to examine if the emissions under the revised threshold values would cause/contribute to a NAAQS violation and/or interfere with NAAQS attainment. Both the photochemical and dispersion modeling results did show that the addition of exempt emissions via modeled hypothetical sources may result in some increases in ambient concentrations. However, as discussed in the TSD accompanying our proposed rulemaking, the FDVs calculated as part of the regional-scale modeling analysis that were based on the maximum modeled impacts from the hypothetical source were less than the NAAQS for each pollutant and averaging period.[24] Similarly, the results from the near-field dispersion modeling also showed

[24] For more detailed discussion regarding the regional-scale photochemical modeling results see Pages 29-31 of

the modeled impacts from the hypothetical sources combined with background concentrations were all less than their corresponding NAAQS.[25] Based on our evaluation of these analyses conducted by ADEQ to support the revised minor NSR permitting thresholds and *de minimis* levels, we find that the increased levels will not interfere with attainment or maintenance of the NAAQS.

COMMENT: The commenter stated that EPA does not cite to the specific rule that states that "*de minimis* changes are still required to meet minor NSR requirements contained in Reg. 19, Chapter 4 including a demonstration that the proposed modification will not interfere with the NAAQS on a case-by-case basis" and that the EPA's claim that this requirement remains is without merit. The commenter stated that EPA may be assuming that Reg. 19.402 applies since a permit revision is implied by Reg. 19.407(C)(6), it is not clear that this requirement applies to what appears to be an administrative amendment to a source's permit if it makes a *de minimis* change. The commenter also states that ADEQ made it clear that it does not plan to require or base any decision for *de minimis* changes on air quality modeling, and without conducting modeling, they will not be able to ensure that the proposed modification will not interfere with attainment or maintenance of a NAAQS on a case-by-case basis. So, the commenter stated that it is unlikely that ADEQ considered Reg. 19.402 as applying to *de minimis* permit changes.

RESPONSE: We do not agree that our proposed rulemaking did not include a citation to the specific rule related to a case-by-case demonstration of non-interference with the NAAQS that is applicable to *de minimis* changes. We also do not agree that our statement that *de minimis*

EPA's Technical Support Document dated August 24, 2017, available in the electronic docket for this rulemaking.

[25] For more detailed discussion regarding the near-field dispersion modeling results see Pages 31-32 of the EPA's Technical Support Document dated August 24, 2017, including Table V.5 which contains the maximum and average AERMOD concentrations both with and without the CMAQ-derived background concentrations that were determined in ADEQ's nearfield hypothetical source analysis.

changes must still meet minor NSR requirements is without merit. Our position that *de minimis* changes must include a demonstration that the proposed modification will not interfere with the NAAQS on a case-by-case basis is based on the applicability of Reg. 19.405(A)(1) to these changes. Further, the provisions in the *de minimis* change rule indicate that *de minimis* changes include an application submittal/review process at Reg. 19.407(C)(5) at it references applications for *de minimis* changes. In addition to the rule language, the current "Air Application Instructions for Registrations, Minor Source Permits, or Title V Permits" made available on ADEQ's air permitting website indicate that the forms are to be used for *de minimis* changes.[26] As such, we do not agree with the commenter that EPA assuming the *de minimis* changes include an application process without a basis. Further we do not agree with the commenter, that our proposed rulemaking did not clearly state the specific rule regarding the referenced technical review requirement to demonstrate NAAQS compliance for a *de minimis* change. In our proposed rulemaking, we specifically stated that the requirement found at Reg. 19.405(A)(1) requires ADEQ must ensure as part of their technical review of *de minimis* change applications that the source will be modified to operate without interfering with NAAQS attainment or maintenance.[27] The *de minimis* change rule found at Reg. 19.407(C)(2) of the current Arkansas SIP exempts qualified proposed changes at an existing source from minor NSR permitting requirements, including public notice. The exemption only exempts the *de minimis* change from minor NSR permitting requirements and not all applicable minor NSR requirements. Therefore, the exemption does not exempt the change from the technical review requirements found at Reg. 19.405(A). Reg. 19.405(A) applies to the review of applications submitted under Chapter 4 of

[26] Air Application Instructions available online at: https://www.adeq.state.ar.us/downloads/WebDatabases/Air/PermitData/Forms%20and%20Instructions/Form%20and%20Instructions/Air_Permit_Application_Forms_Instructions.pdf.
[27] See 82 FR 43508.

Reg. 19, where the *de minimis* change rule is located, and requires that on an application-by-application basis ADEQ must ensure as part of their technical review that the source will be modified to operate without interfering with NAAQS attainment or maintenance. Our approval of the *de minimis* change level revisions does not revise or in any way change the applicability of the SIP-approved technical review requirements found in Reg. 19.405(A), or any other applicable minor NSR requirements, to *de minimis* changes. It is important to note that the Reg. 19.405(A) technical review requirements do not specify that modeling be completed to demonstrate that the source will be constructed/modified without interfering with attainment or maintenance of the NAAQS. The EPA minor NSR SIP rules found in 40 CFR 51.160-165 do not require modeling either. We do not agree with the commenter that without conducting modeling, ADEQ cannot ensure that a *de minimis* change will not interfere with attainment or maintenance of a NAAQS on a case-by-case basis. Case-by-case modeling, such as air dispersion modeling, is one of the methods that is commonly used to meet NAAQS requirements, but it is not the only method. Depending on the source and the proposed *de minimis* change, as part of their technical review ADEQ could alternatively utilize past modeling analyses, such as the statewide modeling that was included as part of the 110(l) demonstration in the March 24, 2017 SIP revision submittal, or existing ambient monitoring data or emissions inventory data relevant to the proposed change to make a determination regarding NAAQS compliance. In addition, the SIP-approved provision found at Reg. 19.407(C)(1)(b) specifies that "a proposed change to a facility will be considered *De Minimis* if: … the change will result in a trivial environmental impact." Our rulemaking does not revise or in any way change this provision.

COMMENT: The commenter stated that EPA has not evaluated whether the SIP revision satisfies CAA section 193. They state that because the revisions allow ADEQ to relax emission

limits via *de minimis* changes and for previously permitting sources to terminate the existing permit and replace with a registration, EPA's review should include an evaluation pursuant to CAA section 193 of whether these relaxations would allow for the relaxation of any control requirements in effect before November 15, 1990, in any nonattainment area, in which case equivalent or greater emissions reductions.

RESPONSE: We do not agree with the commenter that this rulemaking is subject to CAA section 193. Section 193 applies to nonattainment areas only and provides that "[n]o control requirement in effect, or required to be adopted by an order, settlement agreement, or plan in effect before the date of the enactment of the Clean Air Act Amendments of 1990 in area for any air pollutant may be modified after such enactment in any manner unless the modifications insures equivalent or greater emission reductions of such air pollutant." The proposed rule does not change control requirements in nonattainment areas, of which Arkansas currently has none. Therefore, EPA did not address section 193 in the proposed approval action, since it does not apply. In the future, should an area become designated as nonattainment, Arkansas when developing the required nonattainment NSR permitting program would have to ensure that this program applied the Act's thresholds, which might require Arkansas to revise its minor NSR SIP program.

III. Final Action

In this action, EPA is approving revisions to the minor NSR permitting program as submitted as revisions to the Arkansas SIP on July 26, 2010, and March 24, 2017, including supplemental information submitted on November 30, 2015, May 26, 2016, July 5, 2017, July 27, 2017, and March 16, 2018. Our approval includes the following revisions to the Arkansas SIP:

- Revisions to Reg. 19.401 (submitted 07/26/2010 and 03/24/2017);
- Revisions to Reg. 19.407(C)(2)(a) and (b) (submitted 07/26/2010 and 03/24/2017); and
- Revisions to Reg. 19.417 (A) and (B) (submitted 07/26/2010).

As previously stated in our proposed rulemaking, this final action does not remove or modify the existing federal and state requirements that each NSR permit action issued by ADEQ include an analysis completed by the Department and their determination that the proposed construction or modification authorized by the permit action will not interfere with attainment or maintenance of a national ambient air quality standard.

IV. Incorporation by Reference

In this rule, the EPA is finalizing regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is finalizing the incorporation by reference of the revisions to the Arkansas regulations as described in the Final Action section above. The EPA has made, and will continue to make, these materials generally available through *www.regulations.gov* and at the EPA Region 6 Office (please contact Ashley Mohr for more information). Therefore, these materials have been approved by EPA for inclusion in the SIP, have been incorporated by reference by EPA into that plan, are fully federally enforceable under sections 110 and 113 of the CAA as of the effective date of the final rulemaking of EPA's approval, and will be incorporated by reference in the next update to the SIP compilation.

V. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this action merely

approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Is not an Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory action because SIP approvals are exempted under Executive Order 12866;
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq*.);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq*.);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and

- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule

or action. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: June 20, 2018.

Anne Idsal,
Regional Administrator, Region 6.

40 CFR part 52 is amended as follows:

PART 52–APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart E – Arkansas

2. In §52.170(c), the table titled "EPA-Approved Regulations in the Arkansas SIP" is amended by:

a. Revising entries for Reg. 19.401 and Reg. 19.407; and

b. Adding an entry for Reg. 19.417 immediately following the entry for Reg. 19.413.

The amendments read as follows:

§52.170 Identification of plan.

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(c) * * *

EPA-APPROVED REGULATIONS IN THE ARKANSAS SIP

State citation	Title/subject	State submittal/ effective date	EPA approval date	Explanation
Regulation No. 19: Regulations of the Arkansas Plan of Implementation for Air Pollution Control				
* * * * * * *				
Chapter 4: Minor Source Review				
Reg. 19.401	General Applicability	03/24/17	**[Insert date of publication in the Federal Register], [Insert Federal Register citation]**	Includes supplemental information provided on 11/30/2015, 05/26/2016, 07/05/2017, and 03/16/2018
* * * * * * *				

Reg. 19.407	Permit Amendments	03/24/17	**[Insert date of publication in the Federal Register], [Insert Federal Register citation]**	Includes supplemental information provided on 11/30/2015, 05/26/2016, 07/05/2017, 07/27/2017, and 03/16/2018
* * * * * * *				
Reg. 19.417	Registration	07/26/10	**[Insert date of publication in the Federal Register], [Insert Federal Register citation]**	Includes supplemental information provided on 11/30/2015, 05/26/2016, 07/05/2017, and 03/16/2018
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[FR Doc. 2018-13942 Filed: 6/28/2018 8:45 am; Publication Date: 6/29/2018]