

Update on Air Quality Regulations and Guidance Affecting the Oil and Gas Industry

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August 13, 2018

global **environmental** and **advisory** solutions



Overview

Recap

- **NAAQS Review and Revisions**
- **Implementation of the 2015 Ozone NAAQS**
- **2015 Ozone NAAQS Designations**
- **NSPS OOOOa**
- **Continuation of Streamlined Authorizations for the Uintah Basin**
- **Uintah and Ouray Reservation Federal Implementation Plan**
- **BLM Venting and Flaring Rule**
- **Proposed Withdrawal of the Oil and Gas Control Techniques Guidelines**
- **Significant Impact Levels for Ozone and Fine Particulates**

Overview

Broader Issues

- Emission Reduction Credits
- Once-In-Always-In (MACT)
- Project Emissions Accounting / PSD Thresholds
- Actual to Future Actual
- Other Upcoming EPA Actions

A Quick Recap of Developments Since January of 2017

Buckle Up



Here We Go

NAAQS Review and Revisions

NO₂ NAAQS Review

- **Review of the Primary National Ambient Air Quality Standards for Nitrogen Dioxide**
 - June 26, 2017 - EPA initiated a required review of the NO₂ NAAQS.
 - April 6, 2018 - EPA retained current 1-hour NO₂ NAAQS.

Revisiting the 2015 Ozone Standard

- April 7, 2017 – EPA asked the U.S. Court of Appeals for time to review the 2015 ozone NAAQS
- April 11, 2017 – The Court granted request for time and ordered 90 day status reports
- June 26, 2018 – EPA published 2 Federal Register calls for information for an ozone NAAQS review. One ended August 27, 2018 and the other ended October 24, 2018
- July 27, 2018 – EPA published an information request for nominations for an ozone review panel
- August 1, 2018 – EPA told the U.S. Court of Appeals for the D.C. Circuit that it reviewed the 2015 ozone NAAQS and doesn't intend to revisit the 2015 standard
 - EPA said they have “determined that at this time, EPA does not intend to revisit the 2015 Rule.”
 - “EPA anticipates revisiting both the question of when background concentrations interfere with attainment of the NAAQS and the question of how to consider potential interference with attainment in deciding whether or how to revise the NAAQS.”

Implementation of the 2015 Ozone NAAQS

2015 Ozone NAAQS

State Implementation Plan Requirements

- SIPs are Required for Moderate and higher nonattainment areas
- November 17, 2016 – Notice of Proposed Rule Making
 - Included both:
 - Implementation approach and requirements
 - Nonattainment area classification approach
- December 19, 2016 – Comment period extended
- February 13, 2017 – End of extended comment period
- Implementation approach and requirements rules are being developed separate from area classifications approach rules
 - Implementation approach and requirements in limbo?
 - Nonattainment area classification approach was finalized

2015 Ozone NAAQS

SIP Approach and Requirements

- **Approach and requirements haven't been finalized**
 - EPA says to expect it end of summer (source: a Region 8 State agency contact)
- **Final Rule should address:**
 - Implementation requirements for the 2015 ozone standard
 - Timing for State Implementation Plan (SIP) submittals
 - Guidance on
 - attainment demonstrations,
 - reasonable further progress,
 - reasonably available control measures,
 - nonattainment new source review, and
 - emission inventories.
 - Other issues addressed in the 2016 version: (will they still be addressed?)
 - Potentially revoking the 2008 ozone NAAQS and
 - Anti-backsliding requirements in certain areas if the 2008 NAAQS were revoked.

2015 Ozone NAAQS

Nonattainment Area Classification Approach

- Separated from 2016 SIP implementation rule
- Needed to complete April 2018 court ordered designations
- March 1, 2018 – EPA issues final rule establishing the 2015 ozone standard thresholds for nonattainment area classifications and attainment deadlines for each nonattainment area classification.
- March 9, 2018 – Federal Register notice for final rule establishing the thresholds defining the nonattainment area classifications for the 2015 ozone standard and schedule for attainment dates for each nonattainment area classification.
- Identical to 2016 proposal

Ozone Nonattainment Classification Thresholds

OZONE NONATTAINMENT STATE IMPLEMENTATION PLAN REQUIREMENTS AND PROPOSED¹ CLASSIFICATIONS

NONATTAINMENT CLASSIFICATIONS	REQUIRED SIP ELEMENTS	PROPOSED NONATTAINMENT CLASSIFICATION OZONE THRESHOLDS ¹	OFFSET RATIO ³	MAJOR SOURCE THRESHOLD ³
EXTREME (20 years to attain)	TRANSPORTATION CONGESTION CONTROLS CLEAN FUELS REQUIREMENT FOR BOILERS	Equal to or above 0.163 ppm	1.5:1	10 TPY
SEVERE (15 OR 17 YEARS TO ATTAIN)	PENALTY FEE PROGRAM FOR MAJOR SOURCES VEHICLE MILES TRAVELED GROWTH OFFSET LOW VOC REFORMULATED GAS	From 0.105 up to ² 0.111 ppm or From 0.111 up to ² 0.163 ppm	1.3:1	25 TPY
SERIOUS (9 years to attain)	TRANSPORTATION CONTROL MEASURES (IF NEEDED) NONATTAINMENT NEW SOURCE REVIEW REQUIREMENTS FOR EXISTING SOURCE MODS MILESTONE CONTINGENCY MEASURES FOR REASONABLE FURTHER PROGRESS ENHANCED EMISSIONS INSPECTION and MAINTENANCE PROGRAM ENHANCED MONITORING PLAN VEHICLE MILES TRAVELED DEMONSTRATION CLEAN FUELS PROGRAM (IF APPLICABLE) 18% REASONABLE FURTHER PROGRESS OVER 6 YEARS MODELED DEMONSTRATION OF ATTAINMENT	From 0.093 up to ² 0.105 ppm	1.2:1	50 TPY
MODERATE (6 years to attain)	BASIC EMISSIONS INSPECTION and MAINTENANCE PROGRAM STAGE II GASOLINE VAPOR RECOVERY 15% REASONABLE FURTHER PROGRESS OVER 6 YEARS CONTINGENCY MEASURES for FAILURE TO ATTAIN VOC/NO _x REASONABLY AVAILABLE CONTROL TECHNOLOGY FOR MAJOR SOURCES ATTAINMENT DEMONSTRATION	From 0.081 up to ² 0.093 ppm	1.15:1	100 TPY
MARGINAL (3 years to attain)	TRANSPORTATION CONFORMITY DEMONSTRATION NONATTAINMENT NEW SOURCE REVIEW PROGRAM MAJOR SOURCE EMISSION STATEMENTS BASELINE EMISSION INVENTORY PERIODIC EMISSION INVENTORY UPDATES	From 0.071 up to ² 0.081 ppm	1.1:1	100 TPY

¹ November 17, 2016 Proposed Classification Thresholds

² Up to but not including

³ Both VOC emissions and NO_x emissions are subject to ozone nonattainment requirements and treated independently. When either pollutant is emitted at the major source threshold, that pollutant is subject to applicable offsets.

2015 Ozone NAAQS Designations

2015 Ozone NAAQS Designations (page 1 of 3)

- June 28, 2017 - EPA extends deadline for ozone NAAQS attainment designations by 1 year, to October 1, 2018.
- August 2, 2017 – EPA withdraws 1-year extension
- November 6, 2017 – EPA designates “attainment/unclassifiable” areas, about 85% of areas. Some areas remain undesignated, mostly what will become nonattainment.
- December 4, 2017 - Environmental organizations filed suit against EPA for not meeting October 1, 2017 designation deadline.
- December 5, 2017 – 15 states filed suit against EPA for not meeting October 1, 2017 designation deadline

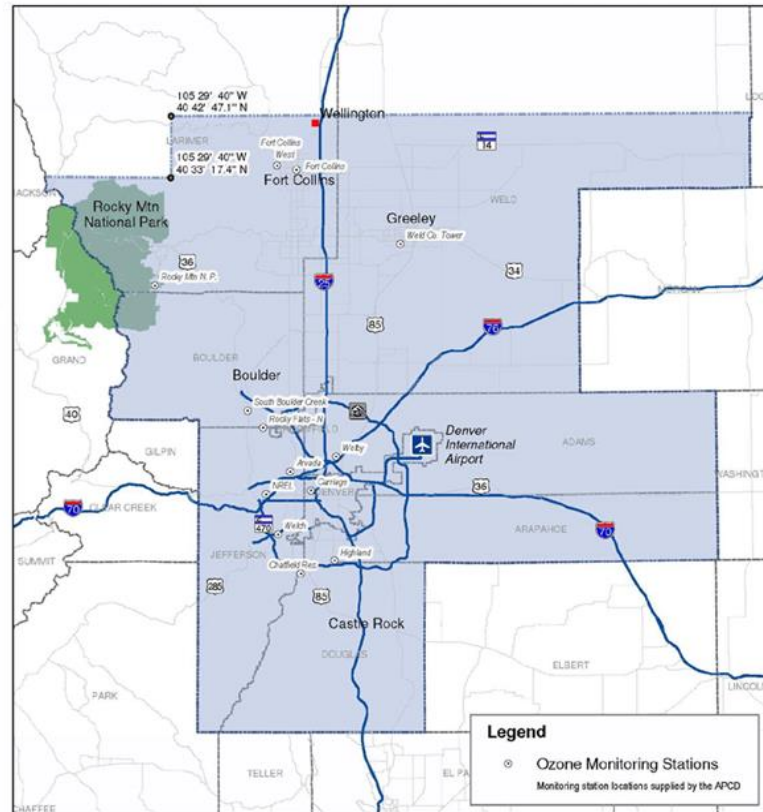
2015 Ozone NAAQS Designations (page 2 of 3)

- **December 20-22, 2017** – EPA sends states and tribes “120 day letters” indicating EPA’s intent on nonattainment designations as well as remaining “attainment/unclassifiable” areas.
 - States and Tribes are given until February 28, 2018 to respond.
 - EPA will make final designations no earlier than 120 days from when notifications were issued.
 - A few designations were delayed (San Antonio area).
- **January 5, 2018** – EPA publishes intended nonattainment designation and remaining “attainment/unclassifiable” areas (the ones sent to States in the Federal Register. Public is given 30 days to respond.
- **March 12, 2018** – Court orders EPA to make designations (except San Antonio) by April 30, 2018. San Antonio deadline is July 17, 2018.
- **April 30, 2018** – EPA administrator signs remaining designations (except San Antonio)

2015 Ozone NAAQS Designations (page 3 of 3)

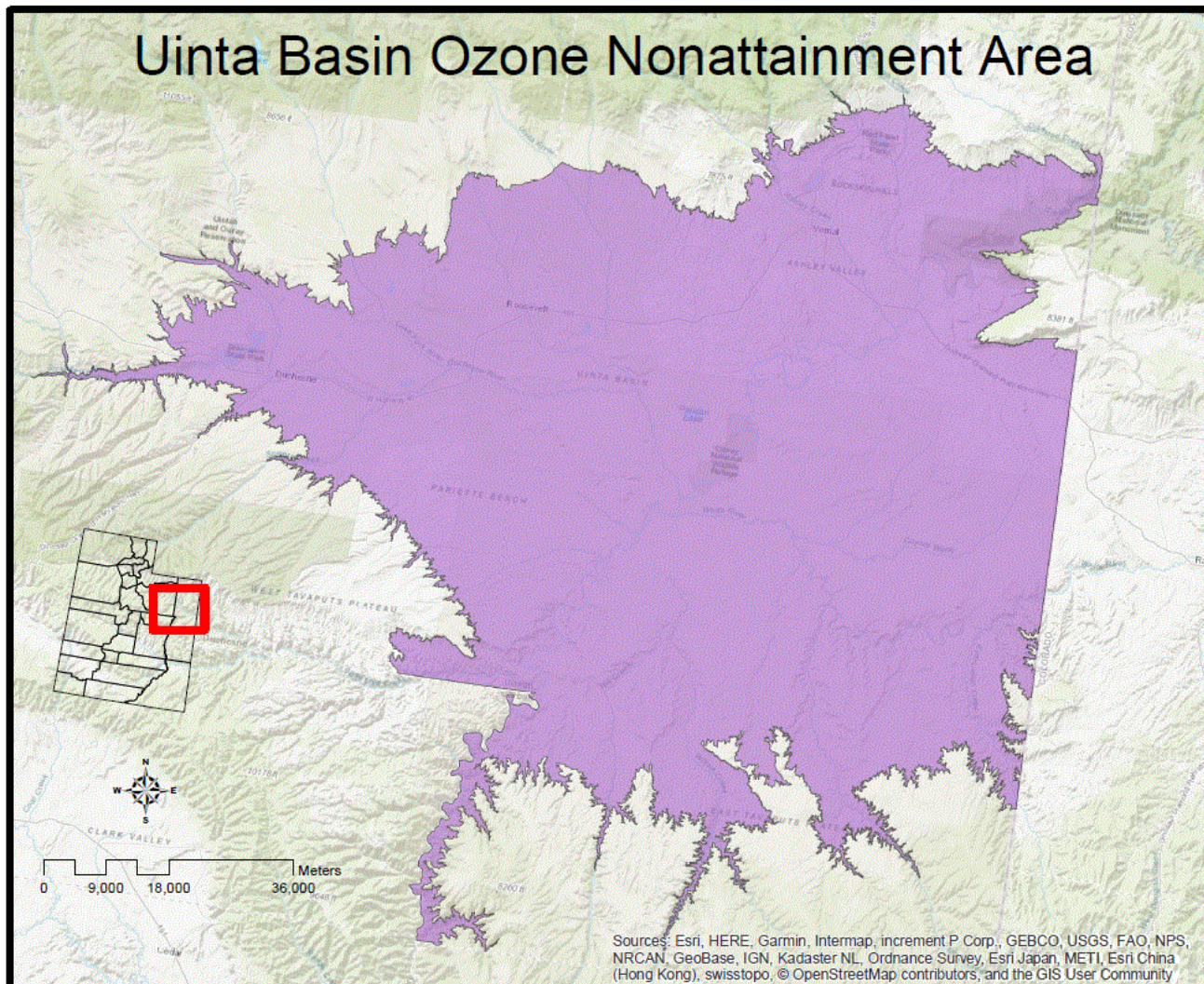
- June 4, 2018 – EPA publishes nonattainment designations and remaining “attainment/unclassifiable” designations in the Federal Register (except San Antonio)
- July 17, 2018 – EPA completed San Antonio area designations
- July 25, 2018 – San Antonio area designations were published in the Federal Register. Become effective September 24, 2018, 60 days after publication.
- August 3, 2018 – Nonattainment designations become effective. (except San Antonio)

Denver-Front Range Ozone Non-Attainment Area



Denver-Boulder-Greeley-Fort Collins, Colorado
Eight-Hour Ozone Control Area

Uintah Basin Ozone Non-Attainment Area



NSPS 0000a

NSPS 0000a

3 Initial Steps were taken for Reconsideration

- Initial Stay
- Proposed Rule for Limited Stay
- Proposed Rule for Extended Stay

NSPS 0000a

Initial Stay of Requirements for Reconsideration

- EPA received five petitions for reconsideration on the 2016 0000a rule and nine petitions for judicial review.
- EPA proposed addressing key policy issues raised in the petitions
- June 5, 2017 - EPA publishes a Federal Register Notice with a three month stay for reconsideration of the requirements for;
 - 1) well site pneumatic pumps standards,
 - 2) closed vent system professional engineer certification,
 - 3) fugitive emissions.

(Effective June 2, 2017)

NSPS OOOOa

Proposed Rule: Limited Stay of Requirements

- **June 16, 2017** – EPA proposed a rule for a 3 month stay of fugitive emissions, pneumatic pumps and professional engineer certification requirements in the final NSPS OOOOa rule.
 - Necessary for going through Congressional Review Act process to implement a 2 year stay
 - Not finalized
 - Not thrown out in the July 3, 2017 vacating of the initial 90-day stay court decision

NSPS OOOOa

Proposed Rule: Extended Stay of Requirements

- **June 16, 2017** – EPA proposed a rule for a 2 year stay of fugitive emissions, pneumatic pumps and professional engineer certification requirements in the final NSPS OOOOa rule.
 - Expected to trigger Congressional Review Act requirements
 - Not finalized
 - Not thrown out in the July 3, 2017 vacating of the initial 90-day stay court decision

NSPS OOOOa Stays

- **April 18, 2017** - EPA announces intent to reconsider fugitive emissions monitoring requirements. Says they will issue a 90 day stay of the compliance date.
- **June 5, 2017** – EPA publishes a Federal Register Notice with a three month stay for reconsideration of the requirements for; 1) well site pneumatic pumps standards, 2) closed vent system professional engineer certification, 3) fugitive emissions. (Effective June 2, 2017)
- **June 16, 2017** – EPA proposed rules with an immediate 3 month stay and a separate 2 year stay that will likely trigger a Congressional Review Act for the June 5, 2017 issues under 3-month reconsideration.
- **July 3, 2017** – D.C. Circuit Court vacates the June 5th 90-day stay. The June 16th proposals were left in place.
- **March 12, 2018** – EPA publishes a Federal Register Notice of final amendments to OOOOa provisions on: a) leaking components repaired during unplanned or emergency shutdowns and b) for Alaska North Slope monitoring survey requirements

Continuation of Streamlined Authorization for Uintah and Ouray Reservation after Nonattainment

National FIP

U&O Streamlined Nonattainment Authorization


- The Uintah Basin has been designated as nonattainment for ozone
- The National O&NG Federal Implementation Plan doesn't apply in nonattainment areas
- May 8, 2018 – EPA proposed amendments to the National O&NG Federal Implementation Plan
 - Amendments would allow continued use of the National O&NG FIP in the Uintah and Ouray Reservation after designation as nonattainment for ozone.
- Without the amendments, the streamlined mechanisms in the National O&NG FIP would be unavailable

Uintah and Ouray Reservation Specific Federal Implementation Plan

Reservation Specific Federal Implementation Plan for Oil and Natural Gas Sources (1 of 2)

- Area is Marginal so a FIP is not required per nonattainment rules
- There was an earlier attempt at a U&O FIP rule, prior to nonattainment, that was never published and withdrawn in February of 2017
- A new rule is in the Proposed Rule Stage – has not been published for review
- Current national EPA Indian Country rules provide for streamlined authorization for minor O&NG sources not in nonattainment areas.
- Streamlining is not available unless the May 8, 2018 National FIP amendments are approved
 - Site-specific permits would be required
 - Potentially delays O&NG development on the U&O Reservation.

Reservation Specific Federal Implementation Plan for Oil and Natural Gas Sources (2 of 2)

- EPA says the goals for a U&O FIP are:
 - 1) Clean air
 - 2) Continued, uninterrupted development of O&NG resources
 - 3) Consistent regulatory requirements between EPA jurisdiction and adjacent lands under State of Utah jurisdiction
-  State of Utah recently developed O&NG emissions regulations and registration program
- How consistent will the U&O FIP be?

BLM Venting and Flaring Rule

BLM Venting and Flaring (1 of 2)

- January 16, 2017 – Courts denied motions to stay the rule which then went into effect the following day
 - Court also expressed a concern as to whether BLM had overstepped into issues that are actually the responsibility of EPA and States under the Clean Air Act
 - Court questioned whether the actions should be justified on environmental and social grounds rather than on resource conservation alone.
- March 28, 2017 – Executive Order 13783 is issued and requires review of the rule
- March 29, 2017 – BLM issues Secretarial Order to review the rule
- May 10, 2017 – Senate rejects Congressional Review Act repeal of the rule
- June 15, 2017 – BLM Federal Register announcement that the compliance dates for certain provisions would be postponed
- October 4, 2017 – Court vacated the June 15, 2017 postponement

BLM Venting and Flaring (2 of 2)

- **October 5, 2017** – BLM Federal Register publication of proposal to temporarily suspend or delay certain requirements for one year, until January 17, 2019.
- **December 8, 2017** – Federal Register publishes final rule per the October 5, 2017 proposed rule, effective January 8, 2018
- **December 19, 2017** – California and New Mexico as well as the Sierra Club file lawsuits against the delay of the compliance dates
- **February 22, 2018** –
 - Federal Register publication of BLM proposed changes to the 2016 final rule
 - California court issues preliminary injunction on the December 8, 2017 rule and requires BLM to enforce the rule
- **April 4, 2018** – Wyoming court orders a stay on the rule’s “phase-in” provisions
- **April 23, 2018** – End of public comment period for BLMs February 22nd proposed changes
- **June 19, 2018** – Final rule for February 22nd proposed changes sent to OMB for review

Proposed Withdrawal of the Oil and Gas Control Techniques Guidelines

Proposed Withdrawal of the O&NG Control Techniques Guidelines

- February 15, 2018 – EPA memo on avoided costs and emission reductions due to withdrawing the CTGs
- March 1, 2018 – EPA proposed withdrawal of the CTGs
- March 9, 2018 – Federal Register request for public comment on proposal
- April 23, 2018 – End of public comment period
- Currently in Final Rule Stage

Significant Impact Levels for Ozone and Fine Particulates

SILs for Ozone and PM_{2.5}

- **March 2018** – Technical Basis Peer Review Report
https://www.epa.gov/sites/production/files/2018-04/documents/peer_review_response_report_final.pdf
- **April 17, 2018** –
 - Finalized Technical Basis Report
https://www.epa.gov/sites/production/files/2018-04/documents/ozone_pm2.5_sils_technical_document_final_4-17-18.pdf
 - Legal Memo on SILs
https://www.epa.gov/sites/production/files/2018-04/documents/legal_memorandum_final_4-17-18.pdf
 - Guidance on SILs
https://www.epa.gov/sites/production/files/2018-04/documents/sils_policy_guidance_document_final_signed_4-17-18.pdf

Modeling Guidance for Ozone and PM_{2.5}

- **June 5, 2018** – Presentation on Ozone and PM_{2.5} Modeling Guidance at EPA Regional, State, and Local Modelers' Workshop

https://www3.epa.gov/ttn/scram/2018_RSL/Presentations/1-20_2018_RSL-O3_PM25_Modeling_Guidance.pdf

“we are now in a position that we can make a set of recommendations for the modeling of ozone and revise our recommendations for the modeling of PM_{2.5} in the context of NSR compliance demonstrations (NAAQS or PSD Increments).”

- EPA will release a ***Draft Guidance on Ozone and PM_{2.5} Permit Modeling*** this summer for informal public comment.

Overview of Broader Issues

Emission Reduction Credits

- All pollutants in Colorado, attainment and nonattainment areas
- Credits are “surplus,” permanent, quantifiable, federally enforceable
- Generate a “bank” and use in future permitting.
- Applies to Major and Minor sources
- Create ERCs by submitting APCD-601, a complete permit application, and others
 - Shutdown existing sources
 - Add controls
 - Reduce or cut back operations
 - Not for units already shut down
 - Submit form / obtain confirmation
 - Create enforceable permit condition
 - Make changes.
 - Create and maintain credit with certification in the CDPHE Registry
 - Valid for 7 years (certification to application)

Emission Reduction Credits (continued)

- **Buy, sell, exchange ERCs APCD-603**
 - Changes ownership in the Registry
- **Use ERCs from the ERC Registry – APCD-602 and other forms**
 - Same non-attainment area for NNSR
 - Apply to netting for permitting or offsets for attainment
 - Use to obtain a permit, potential modeling
 - Potential SIP credit
 - 0.9 for attainment, 0.8 for non-attainment
 - Possible use from outside non-attainment area
- **Stakeholder meeting and webinar August 14, 9-11 a.m.**
 - https://www.colorado.gov/pacific/cdphe/air_emissionreductioncredits

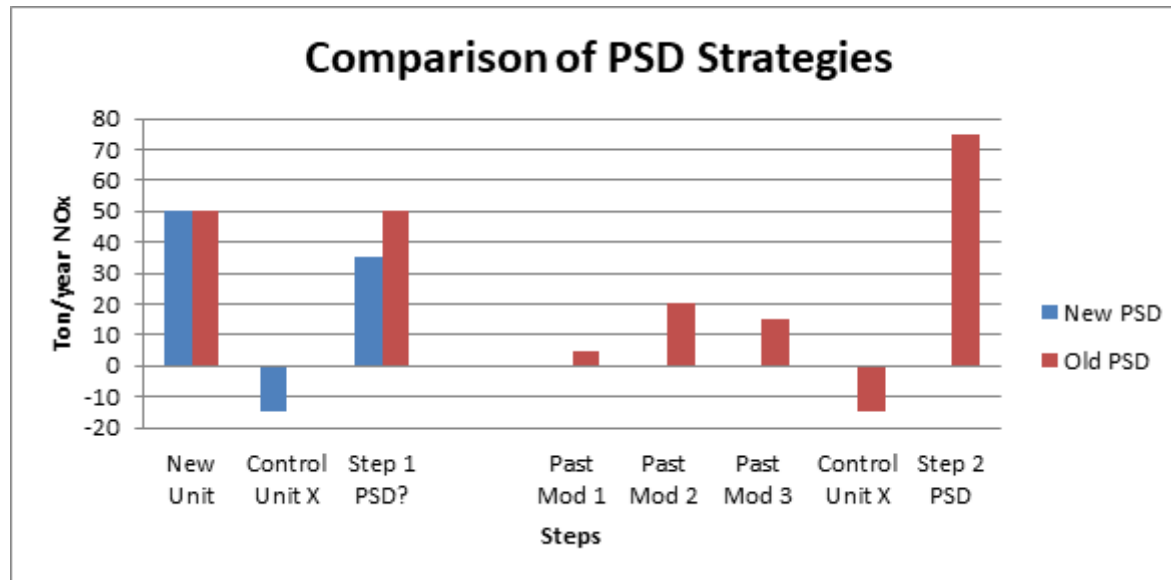
MACT Standards (OIAI)

- **Once-In-Always-In (Seitz memo , May 1995)**
 - Applies to Major Sources of HAPs (10 & 25 tpy)
 - Had to avoid Major Source MACT by the compliance deadline
 - CAAA definition did not include reference to compliance date
 - EPA Proposed amendments 2003, no action taken
 - EPA Proposed rule, 2007, never took final action
- **Policy withdrawn January 25, 2018, memo from Bill Wehrum**
 - effective immediately.
- **Sources could avoid or discontinue Major Source MACT compliance**
- **Area Source GACT may still apply, if you avoid Major Source MACT**
- **Reduction in HAP emissions would have to be federally enforceable.**
- **EPA anticipates a regulatory action, add text to 40 CFR 63**

Project Emissions Accounting

- Determine if PSD (major source) permitting is applicable
- Avoid or respond to added PSD permitting requirements.
- Threshold is applicability : Significant Emission Rate at a major source
 - 40 tpy for NOX, SO2, VOC; 10 tpy for PM2.5, 15 tpy PM10
- Step 1 = Project Only
 - If < Significant Emission Rate, no PSD
 - If \geq Significant Emission Rate, Step 2
- Step 2 = Netting – 5-year Contemporaneous Period
 - Add-up Increases and Decreases in Actual Emissions , other projects and mods
 - PTE is actual emission if within 2 years.
 - If < Significant Emission Rate, no PSD
 - If \geq Significant Emission Rate, PSD
- New guidance allows Project to include other changes as Project in Step 1

Comparison Example for PSD



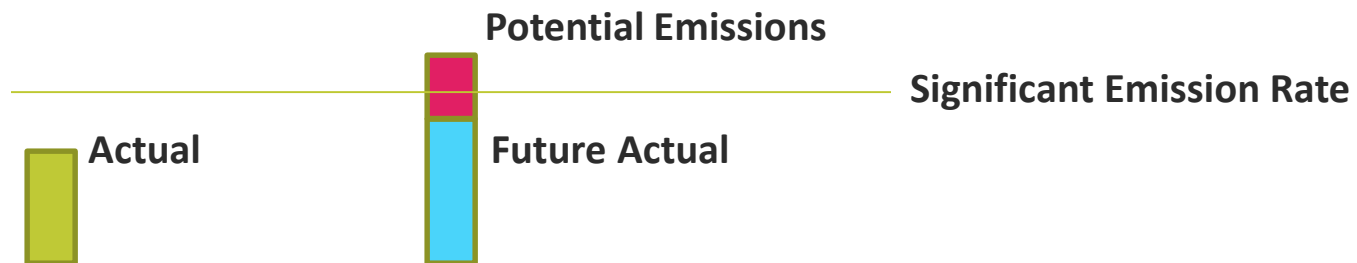
- **Old Method** - trips PSD due to contemporaneous period
- **New Method** – no PSD because “Project” includes reductions from other action
 - Owner/ Operator is able to define “Project”

Project Emissions Accounting

- EPA guidance issued on March 30
- Applies to new and existing units
- Propose rule in Fall 2018

Actual-to-Future-Actual Permitting

- Preparing a construction permit application based on baseline and projected actual emissions.
- Need to determine emissions increase for permitting
- Use projected emissions based on future actual operations
 - Hours, production, market
 - “could have operated” at the level.
 - Level of emissions after “modification” determines applicability
 - May actually manage plant-wide emissions
 - Adjust post-project emissions to prevent significant increase



- EPA will not second-guess NSR applicability as long as procedures are met.

Other Upcoming EPA Actions

- **Ambient air boundary guidance**
- **Source aggregation guidance**
- **Routine Maintenance, Repair, and Replacement (RMRR)**
- **Memo on timely responses/action**
 - **SIPs**
 - **Regional haze**
 - **Permit applications**
 - **Exceptional events**
 - **Monitoring and Modeling data**
 - **Flexibility with offsets**
 - **Future NAAQS reviews**
 - **Timely guidance**

Questions? Discussion

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