

The Future of Startup, Shutdown, and Malfunction

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Agenda

- Origin & Implementation of Startup, Shutdown, and Malfunction (SSM) Exemption Provisions
- MACT SSM Litigation
- Operating Permit SSM Considerations
- Future Implications
- Facility SSM Action Items
- Regulatory and Judicial “Hot Topics”

Origin & Implementation of Startup, Shutdown, and Malfunction (SSM) Exemption Provisions

Mark Wenclawiak – ALL4

Origin & Implementation of SSM Exemptions

- Regulatory programs of focus for excess emissions (EE) during SSM events
 - State Implementation Plans (SIPs)
 - New Source Performance Standards (NSPS; 40 CFR Part 60)
 - National Emission Standards for Hazardous Air Pollutants (NESHAPs; 40 CFR Parts 61 and 63)

Origin & Implementation – SIPs

- EE provisions were part of original SIPs approved in early 1970s
- 1978 EE policy disallowed automatic exemptions; provided states with enforcement discretion approach
- 1982 EE policy (Kathleen Bennett) reiterates 1978 policy

Origin & Implementation – SIPs

- 1983 EE policy (Kathleen Bennett) clarifies 1982 policy, specifically concerning periods of startup and shutdown
 - Startup and shutdown are part of normal operation
 - Bypass of control device may not be a violation
- 1993 U.S. EPA memorandum (John Rasnic) addressed automatic exemptions under PSD
 - Not allowed (in line with 1982 policy)
 - Contrasts with NSPS (technology based standards)

Origin & Implementation – SIPs

- 1999 EE policy (Steven Herman) reaffirms and supplements 1982 policy, and clarifies issues of interpretation that have arisen
 - EE provisions states may incorporate into SIPs
 - Beyond “enforcement discretion” approach and affirmative defense
 - EE that occur during startup and shutdown should be addressed

Origin & Implementation – SIPs

- December 14, 2004 U.S. District Court for the Northern District of Georgia
 - More than half of states have similar SIP provisions, questioning the basis of the SIP process in general
- 2011 Sierra Club petition
 - U.S. EPA February 2013 SIP Call

Origin & Implementation – NSPS

- NSPS represent an inconsistency with SIP. Why?
 - Technology-based program
 - Many states adopt and implement NSPS as part of SIP program designed to achieve compliance with NAAQS
 - SSM exemptions in its general provisions as well as within certain standards
 - Reporting requirements

Origin & Implementation – NESHAPs

- 1994 NESHAP SSM provisions based on general duty to minimize emissions during SSM events
- 2008 D.C. Circuit Court vacated SSM exemption provisions of §§63.6(f)(1) (non-opacity standard) and (h)(1) (opacity standards)
 - Inconsistent with §112(d) of CAA because CAA requires such standard to apply continuously
- 2009 Kushner Guidance Letter – vacatur affects only those standards that incorporate §§63.6(f)(1) and (h)(1) and contain no other text that provides SSM protections

MACT SSM Litigation

Wray Blattner – Thompson Hine

Startup, Shutdown, and Malfunctions

- Most states provide relief from otherwise applicable limits under certain circumstances during periods of operational startup, shutdown, and/or malfunctions
 - Exemptions and/or defenses typically apply if the emission source
 - Minimizes/limits emissions
 - Demonstrates efforts to avoid malfunctions
 - Rationale
 - Often not feasible to operate air pollution control equipment during startups/shutdown without damaging equipment; safety issues
 - Difficult to meet emission limits at low temperatures and/or low combustion efficiencies
 - Malfunctions are usually unanticipated and unforeseen



History of SSM Rules

- **1970's:** EPA determined that excess emissions during SSM are not violations of New Source Performance Standards (CAA Section 111)

Facilities have a “general duty,” to the extent practicable, to operate emission sources and pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions

- **1994:** EPA adopts similar SSM exemptions for National Emission Standards for Hazardous Air Pollutants regulations (CAA Section 112)

But:

- Each source must develop and implement an SSM Plan, and
- The SSM Plan must be incorporated into the source's Title V permit

History of SSM Rules (continued)

- **2002:** EPA removes requirement that Title V permits incorporate SSM Plans; rather, the Permit must simply require that facilities adopt and abide by an SSM Plan
- **2006:** EPA removes requirement that facilities implement SSM Plans during SSM

But “general duty” to minimize emissions remains intact

- **2008:** Sierra Club sues EPA; U.S. Court of Appeals for the D.C. Circuit rules in favor of Sierra Club, vacates the NESHAP SSM exemption. Sierra Club v. EPA, 551 F.3d 1019 (D.C. Cir. 2008)

History of SSM Rules (continued)

- **2011:** Sierra Club files a “petition for rulemaking,” seeking to force EPA to act with respect to State’s SIP rules regarding SSM
- **February 22, 2013:** EPA issues proposed SIP call (78 Federal Register 12460); if finalized, 36 states must submit revised SIPs eliminating most SSM relief

State Implementation Plans (“SIPs”)

- SIPs must contain “emission limitations” and other “control measures” to meet the National Ambient Air Quality Standards (CAA §110(a)(2)(A))
- “Emission limitations” must be imposed on a “continuous basis” (CAA §302(k))
- EPA may issue a SIP call when state rules are “substantially inadequate” to attain or maintain a NAAQS (CAA §110(k)(5))
- EPA Current Position: Exceptions/exemptions during SSM renders the emission limitations non-continuous; therefore, SIPs with such exceptions/exemptions are “substantially inadequate”



SIPs (continued)

- “Emission Limitation”: *“...a requirement established by the State or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction and any design, equipment, work practice or operational standard promulgated under [the Act].”* (CAA §302(k))
 - Allows for alternatives to numeric limits
 - “Limits...on a continuous basis” over what time period?
 - “Limits” = less than uncontrolled potential to emit? Assure no exceedance of NAAQS?



Proposed SIP Call – February 22, 2013

- No “Automatic Exemptions” during SSM events
- No affirmative defenses for civil penalties that might result from excess emissions during planned startups or shutdowns
- Affirmative defenses for civil penalties that result from excess emissions during qualifying malfunctions
- EPA’s Current Schedule: issue a “Final” SIP Call by May 15, 2014
- Once SIP Call becomes Final, states have 18 months to submit revised SIPs

Proposed SIP Call (continued)

- Affirmative Defenses To Civil Penalties in Event of Excess Emissions During Malfunctions
 - Sudden, unavoidable and unpredictable malfunctions
 - Emissions source must be appropriately designed, operated, and maintained
 - Air pollution controls must have been maintained and operated properly
 - Must have taken all practicable steps to prevent malfunction and to minimize excess emissions
 - Repairs must be made promptly and the amount of excess emissions and duration of excess emissions minimized to maximum extent practicable



Proposed SIP Call (continued)

- Affirmative Defenses (continued)
 - Not a recurring event
 - Prompt notification of Agency
 - Defense applies only to monetary penalties, **NOT** injunctive relief or citizen suit awards
 - Defense does **NOT** apply with respect to excess emissions associated with startup after a malfunction
 - Burden is on Source owner/operator to prove the elements of the affirmative defense

Startup, Shutdown, and Malfunctions

- Industry View:
 - There is no evidence that emissions during startup, shutdown, and malfunctions have resulted in exceedances of a NAAQS or otherwise caused a threat to public health and safety
 - The rule was promulgated in an undemocratic and non-transparent fashion
 - Rule is product of an EPA-Sierra Club settlement in which States had no input
 - Public given only 30 days to comment

Startup, Shutdown, and Malfunctions (continued)

- Industry View (continued):
 - Will create major burden – reissuance of all air permits?
 - Rule is akin to requiring motor vehicles to meet fuel mileage standards during acceleration
 - To extent SIP call proceeds, a blend of good engineering/work practice standards during SSM should be sufficient to meet CAA requirements, rather than otherwise applicable numeric limits, provided a reasonable measure of “continuous reduction” is achieved
 - “EPA shall disapprove a SIP revision only if the revision would interfere with any applicable requirement concerning attainment of NAAQS or any other applicable requirement of the Clean Air Act. Luminant Generation Co. v. EPA, 714 F.3d 841 (5th Cir. 2013)

Operating Permit SSM Considerations

Jon “JP” Kleinle – ALL4

Operating Permit Considerations

- Title V Operating Permit (TVOP) Content
 - Why and how SSM requirements may be included in your TVOP
 - Examples of critical SSM conditions that may or may not be found in your TVOP
- Operating Permit Renewal, Re-openings, and Revisions
 - Implications of provisions for re-opening and/or revising TVOPs due to MACT SSM vacatur

Operating Permit Considerations

- 40 CFR Part 70 Requirements for TVOP Content
 - All “applicable requirements” including SIP, NSPS, NESHAP/MACT, etc.
 - Methods for demonstrating compliance with all applicable requirements
 - Monitoring, recordkeeping, and reporting requirements

Permit Content

- 40 CFR 70.6—Permit Content
 - 40 CFR 70.6(a)(1)—Standard permit requirements
 - Permits must include operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance
 - 40 CFR 70.6(a)(3)—Monitoring and related recordkeeping and reporting requirements
 - Permits must incorporate all applicable monitoring, recordkeeping, and reporting requirements

Permit Content

- 40 CFR 70.6—Permit Content (Cont'd)
 - 40 CFR 70.6(a)(2)—Permit duration
 - Permits are issued for a fixed term of 5 years (except MWC 12 years w/5 yr review)

Permit Content

- SIP, NSPS, and NESHAP/MACT standards should be included in TVOP as applicable requirements
- SSM provisions may be included in TVOPs in different ways:
 - As emission unit or group specific applicable requirements
 - Under monitoring, recordkeeping, or reporting requirements
 - Under source-wide requirements
 - Other???

MACT SSM Vacatur

- On October 16, 2009, the U. S. District of Columbia Circuit Court issued a mandate vacating the MACT SSM exemption provisions
- 40 CFR 63.6(f)(1) and (h)(1) — Part 63 Subpart A General Provisions that provided exemption from emission standards required by the relevant MACT during SSM events

MACT SSM Vacatur

- Some NESHAP/MACT Subparts included specific language exempting SSM events
- Other NESHAP/MACT Subparts only included references to the General Provision's SSM exemptions

MACT SSM Vacatur

NESHAPs Affected by Vacatur*	NESHAPs Not Affected By Vacatur*
Subparts S & MM: Pulp & Paper	Subparts F, G, H, I: HON for SOCM
Subpart T: Halogenated Solvent Cleaners	Subpart GGG: Pharmaceutical Mfg
Subpart X: Secondary Lead Smelting	Subparts CC and UUU: Petroleum Refineries
Subpart GG: Aerospace Manufacturing	Subpart DDDD: Plywood & Composite Wood Products
Subpart KK: Printing & Publishing	Subpart FFFF: MON
Subpart LLL: Portland Cement	Subpart YYYYY: Combustion Turbines
Subpart RRR: Secondary Aluminum	Subpart ZZZZ: RICE
Subpart JJJJ: Paper & Other Web Coating	Subpart DDDDD: Major Source Boilers
Several area source NESHAPs in the metals, chemicals, and coating subcategories	Subpart JJJJJJ: Area Source Boilers

* At the time of the issuance of the mandate (2009).

MACT SSM Vacatur

- MACT Standard Not Immediately Affected
 - As a result of the litigation surrounding the vacatur, U.S. EPA is addressing the vacatur by revising MACT standards that included specific SSM exemption provisions as part of the CAA Section 112(d)(6) eight year review process
 - These MACT standard sources need to be following rule development and promulgation and addressing new SSM accordingly

MACT SSM Vacatur

- MACT Standards Immediately Affected
 - Immediately following issuance of the court mandate, facilities subject to a MACT standard that only referenced the General Provision's SSM exemption were required to be in compliance with emission limits at all times, even during SSM events....*maybe*

MACT SSM Vacatur

- MACT Standards Immediately Affected Cont'd
 - One could argue that SSM exemption provisions remain in effect during the TVOP term if The TVOP includes
 - Specific SSM exemption provision language (i.e., not a reference), and
 - Part 70 Permit Shield provisions

MACT Subpart Example

Example of a NESHAP/MACT Subpart that was
immediately affected by vacatur

**TABLE 1 TO SUBPART MM (PULP & PAPER) OF PART 63—GENERAL
PROVISIONS APPLICABILITY**

General Provisions Reference	Summary of Requirements	Applies to Subpart MM
63.6(f)	Compliance with nonopacity emissions standards	Yes
63.6(h)	Compliance with opacity and visible emissions (VE) standards	Yes

MACT Subpart Example

Example of a NESHAP/MACT Subpart that was not immediately affected by vacatur

**TABLE 7 TO SUBPART YYYY (COMBUSTION TURBINES) OF PART 63—
GENERAL PROVISIONS APPLICABILITY**

General Provisions Reference	Summary of Requirements	Applies to Subpart MM
63.6(f)(1)	Applicability of standards except during startup, shutdown, or malfunction (SSM)	Yes
63.6(h)	Opacity and visible emission standards	No - Subpart YYYY does not contain opacity or visible emission standards.



§63.6105(a) You must be in compliance with the emission limitations and operating limitations which apply to you at all times except during startup, shutdown, and malfunctions.

Renewal, Re-openings, & Revisions

- What is the effect of the MACT SSM Vacatur on your operating permit?
 - NESHAP Subparts that were immediately effected:
 - Likely permit already required re-opening and/or revision
 - NESHAP Subparts that were not immediately effected (i.e., explicitly contain exemption):
 - Likely your permit will require re-opening and/or revision soon, if not already

Renewal, Re-openings, & Revisions

- 40 CFR 70.7(f)(1)(i)—Reopening for Cause
 - Agency requirement
 - Permits must be reopened prior to the expiration of the permit to address new applicable requirements for a Part 70 source with a remaining permit term of 3 or more years

Renewal, Re-openings, & Revisions

- 40 CFR 70.5(b)—Duty to Supplement or Correct Application
 - Applicant requirement
 - Applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft permit

Renewal, Re-openings, & Revisions

- 40 CFR 70.5(c)(4)(i)—Standard Application Form and Required Information
 - Applicant requirement
 - Citation and description of all applicable requirements

Renewal, Re-openings, & Revisions

- 40 CFR 70.5(c)(8)—Standard Application Form and Required Information
 - Applicant requirement
 - A compliance plan for all part 70 sources that contains a description of the compliance status of the source with respect to all applicable requirements

Permit Modifications

- 40 CFR 70.7(e)(4)—Significant modification procedures
 - Applicant requirement
 - Significant permit modifications shall meet all Part 70 requirements including those for applications
 - 70.5(c)(4)(i) application requirement to include citation and description of all applicable requirements

MACT SSM Vacatur

- Key question:

Did the vacatur of 40 CFR 63.6(f)(1) and (h)(1) create new applicable requirements required to be incorporated into facility TVOPs?

Future Implications

Steve Axtell – Thompson Hine

Shifting Landscape: Which Rules Apply Now and Later?

- SIP call proposal – February, 2013
- Final SIP call – expected in 2014 (May?)
 - Will provide impacted states 18 months to submit revised SIP
 - Generally expected state revisions would be final before SIP submittal
- What about when State promulgates implementing rule...
 - ... but before SIP revision submitted?
 - ... after revision submitted but before federal EPA approves?

Shifting Landscape: Which Rules Apply Now and Later? (continued)

- Federal EPA action on revised SIPs
 - Expected within 24 months of SIP revision submittals
 - What if revised SIP approved? disapproved?
- What if FIP rule is in place (or not)?

Enforcement

- Who can bring enforcement?
 - Federal - EPA
 - State Agencies
 - Local Air Pollution Control Authorities
 - Citizens, Citizen (Public Interest) Groups
- Potential Triggers for Enforcement
 - Routine inspections for air or other media
 - Clues arise from other mandated reports/notifications to agencies
 - Incidents drawing regulatory attention
 - Disgruntled employees contacting regulators



Enforcement

- What are the potential consequences?
 - Civil penalties
 - gravity component
 - economic benefit component
 - Criminal penalties
 - Suspension and Debarment (government contractors)
 - Injunctive Relief (action forcing remedies)
- Penalty policies
 - Federal EPA and many states have them
 - Potential road map for negotiating settlement



Citizen Enforcement

- Authority, Procedure
 - Clean Air Act
 - State statutes
 - 60-day notice required
- Potential recovery
 - Civil penalty bar
 - But damages and attorney fees can be pursued

Citizen Enforcement (continued)

- Strategies to manage potential citizen suit liabilities
 - Consider pursuing “friendliER” settlement with state or federal authorities
 - Leverage legal and procedural uncertainties toward minimal settlements

Managing Potential Liability

- Implement and document best efforts to manage, curtail event
 - Seek to satisfy affirmative defense criteria as act of good will even where rule vacated - for use in negotiating potential enforcement
- Consider self-disclosure to regulators if available
 - Federal – “Audit Policy”
 - EPA de-emphasizing Policy but still in use
 - State equivalent policies
 - Many, but not all states
 - Beware: criteria may vary

Self-Disclosure – Federal Audit Policy

- Criteria for gravity-based penalty forgiveness eligibility
 - Timely (21 days from discovery)
 - Systematic discovery
 - Voluntary disclosure – satisfying this criterion could be problematic
 - Discovery and disclosure independent of enforcers
 - Correction and remediation
 - Recurrence prevention
 - No repeat violations
 - Excluded violations
 - Cooperation
- Cannot be relieved from Economic Benefit liability through self-disclosure

Facility SSM Action Items

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SSM Action Items

- Action Items Related to TVOPs
 - Understand what MACT standard(s) are applicable to your facility
 - Determine if those MACT standard(s) incorporate the General Provisions SSM exemption by reference or contain a similar exemption within the specific MACT standard
 - Determine if your MACT standard(s) have been revised since the vacatur

SSM Action Items

- Action Items Related to TVOPs Cont'd
 - Review your operating permit for SSM related conditions
 - Compare your operating permit conditions to the current MACT standard(s)
 - Determine if operating permit changes were/are warranted

SSM Action Items

- Action Items Related to TVOPs Cont'd
 - Determine if your Part 70 applications submitted after the mandate addressed the SSM vacatur:
 - TVOP renewals
 - TVOP significant modifications (including those incorporating construction permits)

SSM Action Items

- Action Items Related to SSM Plan (SSMP)
 - If you still operate under a SSMP
 - Verify requirement still in effect
 - Consider converting to Malfunction Plan to address Affirmative Defense
 - Evaluate semi-annual MACT reporting procedures to insure SSM events are correctly addressed

SSM Action Items

- Action Items Related to SSM Plan (SSMP)
 - Understand startup/shutdown emissions and limits
 - Understand startup/shutdown procedures
 - Make sure training and plans are up to date
 - Consider 3rd party SSM audit
 - Track SIP changes, take advantage of process

Regulatory and Judicial “Hot Topics”

Wray Blattner – Thompson Hine

Hot Topics Up in the Air

- Greenhouse Gas New Source Performance Standards for Power Plants
 - Proposed Rule January 8, 2014
 - 1,100 lbs CO₂/MWhr – will require “carbon capture and sequestration” (most efficient coal-burning units achieve 1,800 lbs CO₂/MWhr)
 - Implications:
 - Will CCS be deemed BACT for GHG
 - Once NSPS rule is final, Clean Air Act requires EPA to issue guidelines to states for CO₂ standards for existing power plants
 - Other industries?

Hot Topics Up in the Air (continued)

- Boiler National Emission Standards for Hazardous Air Pollutants (“Boiler MACT”)
 - January 2013 final rules for “Area” and “Major” Sources
 - Major Source compliance deadline: January 31, 2016 (possible 1-year extension)
 - 19 subcategories based on fuel use
 - Numeric and work practice standards
 - Area Source compliance deadline: March 21, 2014 (possible 1-year extension)
 - Gas-fired sources are not regulated
 - Coal-fired and large oil-fired sources are subject to numeric limits for mercury, carbon monoxide

Hot Topics Up in the Air (continued)

- Revisions to National Ambient Air Quality Standards
 - Ozone standard currently 75 ppb
 - EPA considering lowering standard to 60-70 ppb range
 - If 60 ppb: 85% of nation would be “non-attainment,” triggering the tightening of state volatile organic compound and other ozone precursor emission limits

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