

Continuous Compliance Revisited: Living without the MACT SSM Exemption Outline

- Who I am
- What is the SSM exemption
- History of changes to SSM
- Current Status
- Options
- Examples for living without SSM exemption
- References
- Questions

Continuous Compliance Revisited: Living without the MACT SSM Exemption

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MACT SSM Exemption- Overview

- MACT or NESHAP general provisions 40 CFR Part 63 Subpart A exempt sources from the requirement to comply with the emission standard during periods of startup, shutdown, and malfunction.
- Citation 63.6(f)(1) nonopacity, and 63.6(h)(1) opacity
- 63.6(e)(3) contains the requirement for developing and implementing a startup, shutdown, malfunction plan.

MACT SSM Exemption History

- 3/16/1994 Rule- EPA adopted SSM exemption for section 112
- 2001 to 2007 many changes to SSM plan requirements, more to come (pg 7 of handout)
- 12/19/2008 court vacated the SSM subpart A provisions.

MACT SSM Exemption- Status

- In *Sierra Club v EPA*, 551F.3d1019 (D.C. Cir. 2008), the U.S. Court of Appeals for District of Columbia vacated two provisions Subpart A 63.6(f)(1) and 63.6 (h)(1).
- EPA was granted a stay of the mandate until 10/6/09. (Industry request denied)
- The SSM exemption was in effect until the court issued the mandate.
- Mandate was issued 10/16/09. The SSM exemption is no longer in effect.

MACT SSM Exemption- Status

- Source must comply with the emission standard, for example percent (%) control, even during startup, shutdown, and malfunction. (MACT list on pg 8 of handout)
- This means a source is subject to enforcement when reporting monitoring deviations & excess emissions during SSM events in semi-annual reports.

Continuous Compliance, Revisited: Living without the MACT SSM Exemption-Status

- Good news- not all MACTs are impacted, 64 MACTs will not be immediately affected by the vacature; 20 major source & 13 minor source are immediately impacted.
- If you have an alternative monitoring plan approved for your MACT, this plan should be reviewed on a case-by-case basis for SSM events.

Continuous Compliance, Revisited: Living without the MACT SSM Exemption-Status

- Bad news- EPA will open the other 64 MACTs in future to address SSM.
- It may be difficult to meet the MACT standard during SSM events, and stack test data to determine compliance during SSM events is usually not available.

Continuous Compliance, Revisited: Living without the MACT SSM Exemption-Options

- The requirement for an SSM Plan has not changed. Review the SSM plan and revise if necessary.
- For example, if your SSM Plan incorporates an existing standard operating procedure (SOP) that defines when the control device is shutdown vs. when the process is shutdown.

Continuous Compliance, Revisited: Living without the MACT SSM Exemption-Options

- Evaluate typical SSM events, especially malfunctions, and review methods for determining emissions for those events.
- Worst-case would be uncontrolled HAP emissions for SSM time periods, and include SSM parameter values (e.g. T.O. temperature) in any required averaging period.

Continuous Compliance, Revisited: Living without the MACT SSM Exemption-Example

- Continuous Process Thermal Oxidizer used
- Procedure in place- Startup T.O. first, do not startup process until T.O. is at temperature (interlock equip).
- Procedure in place- Shutdown process first, then shutdown the T.O. after process emissions cease.
- Malfunction- determine common ones, calculate emissions to determine compliance, e.g. daily average, monthly rolling average. If usually exceed limit consider secondary control such as a flare.

Continuous Compliance, Revisited: Living without the MACT SSM Exemption-Example

- JJJJ Paper & Other Webs Coating MACT example -
- For sources with add-on controls excess emissions
 - ***Any periods where web coating occurs, and:***
 - *Oxidizer not operating, (i.e. bypass)*
 - *Oxidizer not making minimum temperature*
 - *Oven pressure not maintaining minimum negativity*
 - *Temperature or pressure data not recorded*
 - ***Must assume emissions are uncontrolled and include in monthly compliance calculations (most, if not all, facilities already do this)***
 - ***Adverse impact on compliance not likely, because of monthly averaging period***
 - ***Revise SSM plans/recordkeeping check lists accordingly***

Continuous Compliance, Revisited: Living without the MACT SSM Exemption-Example

- JJJJ Paper & Other Webs Coating MACT example -
- For sources with add-on controls CPMS data
 - ***Any periods where web coating occurs, and:***
 - *Oxidizer not operating, (i.e. bypass)*
 - *Oxidizer not making minimum temperature*
 - *Oven pressure not maintaining minimum negativity*
 - *Temperature or pressure data not recorded*
 - ***Must include parameter readings during SSM in hourly & 3-hour rolling averages and if not meeting limit (e.g. minimum temperature) report as a deviation [except cpms malfunction]***
 - ***Adverse impact on compliance expect to be same as Title V permit deviation***
 - ***Revise SSM plans/recordkeeping check lists accordingly***

Continuous Compliance, Revisited: Living without the MACT SSM Exemption-Example

- Batch Process Scrubber used to comply
- Procedure or interlock - Startup water flow prior to starting batch.
- Procedure or interlock- Shutdown scrubber only after batch is done and no longer venting.
- Malfunction- start shutdown as soon as it is safe, scrubber on.
- Do not start a new batch until the malfunction has been corrected, estimate emissions and compare to MACT standard.

Continuous Compliance, Revisited: Living without the MACT SSM Exemption-New Rule

- New Chemical Manufacturing Area sources
Subpart 6V establishes limits for SSM periods
- 63.11496(g)(5) references to 63.998(b) do not
apply (subpart SS). So cannot exclude SSM
periods from your control device monitoring
averages
- Table 3 continuous vents- reduce emissions of
total organic HAP by 95% by weight (85% by
weight for periods of startup or shutdown).

Continuous Compliance, Revisited: Living without the MACT SSM Exemption-References

- EPA Federal register websites and eCFR
 - http://www.access.gpo.gov/su_docs/fedreg/frcont06.html
 - http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?&c=ecfr&tpl=/ecfrbrowse/Title40/40tab_02.tpl
- EPA letter website location (list of MACTs)
 - <http://www.epa.gov/compliance/civil/caa/ssm-memo080409.pdf>
- Acknowledgements: American Chemistry Council members and staff, Paul Gerbec, 3M

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- Questions?
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SSM Rule History

- **3/16/1994 Rule- EPA adopted SSM exemption for section 112**
- 3/23/2001 SSM plans publically available only by request
- **4/5/2002** Rule EPA removed requirement that a source's Title V incorporate the SSM plan
- 4/25/2002 Sierra Club petition for review of 2002 rule
- 12/9/2002 Proposed rule, settlement to submit SSM plan with Title V application
- **5/30/2003** Rule requiring members of the public to make reasonable request to permit authority for copy of the SSM plan
- 7/29/2003 Sierra Club and NRDC petitions
- 7/29/2005 Proposed rule for reporting of SSM events (post event) in MACT semi-annual reports
- **4/20/2006** Rule EPA retracted the requirement to implement SSM Plans during SSM periods
- 6/19/2006 Earth Justice petition general duty to minimize emissions must be supplemented with permit conditions
- 4/18/2007 EPA denied the petition
- 6/16/2007 Earth Justice filed for review
- **12/19/2008 court vacated the SSM subpart A provisions**
- 10/2009 Industry groups petition for cert. with Supreme Court

List of MACTs that refer to Subpart A for SSM, Major Source (must comply to limits at all times)

- List by Subpart, Category
- **R, Gasoline distribution**
- **S, Pulp and paper**
- **T, Halogenated solvent cleaners**
- **X, Secondary Lead smelting and TTT, Primary Lead**
- **Y, Marine loading**
- **GG, Aerospace mfg**
- **II, Shipbuilding and repair**
- **KK, Printing and publishing**
- **LL, Primary Aluminum and RRR, Secondary Aluminum**
- **MM, Combustion sources at pulp mills**
- **CCC, Steel pickling**
- **III, Flexible Polyurethane Foam production**
- **LLL, Portland Cement**
- **NNN, Wool Fiberglass**
- **VVV, Publically owned treatment works**
- **XXX, Ferroalloy production**
- **AAAA, Municipal Solid Waste Landfills**
- **JJJJ, Paper and Other Web coating**
- **RRRR, Metal Furniture**
- **VVVV, Boat manufacturing**

List of MACTs that refer to Subpart A for SSM, Area Source (must comply to limits at all times)

- **List by Subpart, Category:**
- YYYYYY, Electric Arc Furnaces
- ZZZZZZ, Iron and Steel Foundaries
- EEEEEEE, Primary Copper
- FFFFFFF, Secondary Copper
- GGGGGG, Primary Nonferrous metals
- HHHHHH, Paint stripping (MeCl) Misc. Coating (spray paint booths)
- LLLLLL, Acrylic/Modacrylic fibers
- NNNNNN, Chromium Compounds
- OOOOOO, Flexible Polyurethane Foam production & Fab
- PPPPPP, Lead Acid Batteries
- RRRRRR, Clay ceramics
- TTTTTT, Secondary Nonferrous metals
- YYYYYY, Ferroalloys Production
- **Note:** (6V) VVVVVV, Chemical Manufacturing Area (issued 10/29/09) first rule with specific SSM requirements