

Start-up, Shutdown and Malfunction Plans (SSMPs)

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Topics

- ✍ Basic Requirements of an SSMP
- ✍ Some tips for developing your SSMP
- ✍ One more general requirement

What is an SSMP?

- ✍ **S**tart-Up, **S**hutdown, and **M**alfunction **P**lan
- ✍ Required for most sources subject to a NESHAP/MACT
- ✍ Details specific procedures you follow during SSM

What is included?

- ✍ **Control device** used to comply with the MACT standard
- ✍ **Monitoring equipment** used to verify control device operation
- ✍ ...And sometimes...the **emissions unit!**

Definitions - §63.2

- ✍ Startup means the setting in operation of an affected source or portion of an affected source for any purpose.
- ✍ Shutdown means the cessation of operation of an affected source or portion of an affected source.

Types of Start-Ups and Shutdown

- ✍ “Cold” Start-Up
- ✍ “Warm” Start-Up
- ✍ Normal Shutdown
- ✍ Emergency Shutdown

Definition of Malfunction (§63.2)

- ✍ “Any sudden, infrequent, and not reasonably preventable failure of APC & ME, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded”

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One last line....

✍ New line added in 2002...

“Failures that are caused in part by poor maintenance or careless operation are not malfunctions.”

SSMP Purpose

- ✍ Operate and maintain...in a manner that meets the general duty clause to minimize emissions
- ✍ Correct malfunctions as soon as practicable in order to minimize HAP
- ✍ Reduce reporting burdens associated with SSM

§63.6(e)(3)

SSMP Requirements

- ✍ Develop and implement a written SSMP that describes in detail:
 - Procedures for operating and maintaining process during SSM
 - Corrective action program for malfunctions
 - The APC and monitoring equipment used to comply with the standard

§63.6(e)(3)

Components of SSMP

- ✍ Description of each SSM
- ✍ Each procedure for each listed SSM event
- ✍ Corrective action
- ✍ **Steps to minimize emissions during each SSM**

Components of SSMP (Cont'd)

- ✍ Responsible individuals for SSMP
- ✍ Recordkeeping and reporting procedures for SSMP
- ✍ Reporting forms

SSMP Reporting

- ✍ If you follow your plan, report malfunctions in your semi-annual reports
- ✍ If you do NOT follow your plan
 - Fax or phone within 2 working days
 - Letter: ≤ 7 days after end of event

How do you know if you need an SSMP?

- ✍ If you are subject to a MACT
- ✍ Look at General Provisions table
- ✍ Look for YES for §63.6(e).
- ✍ NOTE whether SSMP is linked to use of control device

Watch out for one more 4-letter word!

- ✍ Operation, Maintenance, and Monitoring Plan (OMMP)
- ✍ Not required by all MACTs
- ✍ Can essentially codify manufacturer's recommendations

How does a good SSMP help?

- ✍ Reduces reporting
- ✍ MACT emission limits do not apply during periods of SSM
- ✍ Good planning can help reduce NOV's!

Two Approaches

- ✍ List each individual malfunction/ error code
 - Stuck valve #1, Fan motor 1
- ✍ List each end result
 - Low temperature in combustion zone
- ✍ For most operations, second approach is probably best.

Some Quick Tips

- ✍ Do not wait until last minute
- ✍ Live it for awhile!
- ✍ Start with review of your current practices. How close are you?
- ✍ Do NOT forget to address how emissions are minimized!

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