

MON @ New Orleans / ACC / SOCMA

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Randy McDonald, OAR, USEPA

Outline

- Status of NESHAP
- General applicability
- General requirements
- MACT standards
- Notifications, reports, and records

Status

- 40 CFR Part 63 Subpart FFFF
- NESHAP for Miscellaneous Organic Chemical Manufacturing
- Publication date - ?
- Technical corrections/rule amendments

Layout of Rule

- Applicability
- General requirements - reference (with exceptions) to subpart SS
- MACT standards
- Alternative standards
- Reporting and recordkeeping

Applicability - Who's Out

- Minor Sources
- Inorganic chemical manufacturers
- Affected sources covered by other MACT
- Research and development facilities
- End use operations
 - Fabrication
 - Spinning
 - Molding
 - Forming

Applicability – Who's In

- Major sources
- MGPU process, use, or produce organic HAP, HCl, HF, or Cl₂

MCPU

- Processing equipment, including storage tanks and loading racks, operated to produce NAICS 325 organic chemical
 - Chemical may be family of materials
 - Chemical may be isolated intermediate
- CMPU that has batch vents

Isolated intermediate

- Product of a process that's stored
- Marks the end of a process, i.e., MCPU
- Storage reflects long term, not batch cycle
- Examples
 - Stored intermediate is used onsite and shipped offsite
 - Stored intermediate feeds two different processes

Family of Materials

- Product is a grouping of similar material
 - Near identical HAP emission profiles
 - Near identical manufacturing equipment
- Advantages
 - Reduced reporting and recordkeeping
 - Consistency with Title V permit
 - Less operating scenarios
 - Possible P2 option

Affected Source

- Existing

- Facility-wide collection of MCPU, heat exchange system, and wastewater system

- New

- New or reconstructed facility-wide operations
- New or reconstructed dedicated MCPU with PTE of 10/25 tons

Example #1 –Affected Source

If

An affected source adds new equipment to existing MGPU

Then

New source standards do not apply if new equipment does not constitute reconstruction of dedicated MGPU or facility-wide source

Example #2 – Affected Source

If

An affected source adds new equipment to create new MCPU

Then

New source standards do not apply if no reconstruction of facility-wide source or construction of dedicated 10/25 ton MCPU

Example #3 – Affected Source

If

Major source adds new equipment and begins producing MON chemical for the first time at the facility

Then

Facility becomes a new affected source. Any process changes and additions are also subject to new source standards

Primary Product

- Nondedicated equipment
- Single process unit group (PUG) per §63.2435(e)
- Option for subparts GGG, MMM, and FFFF

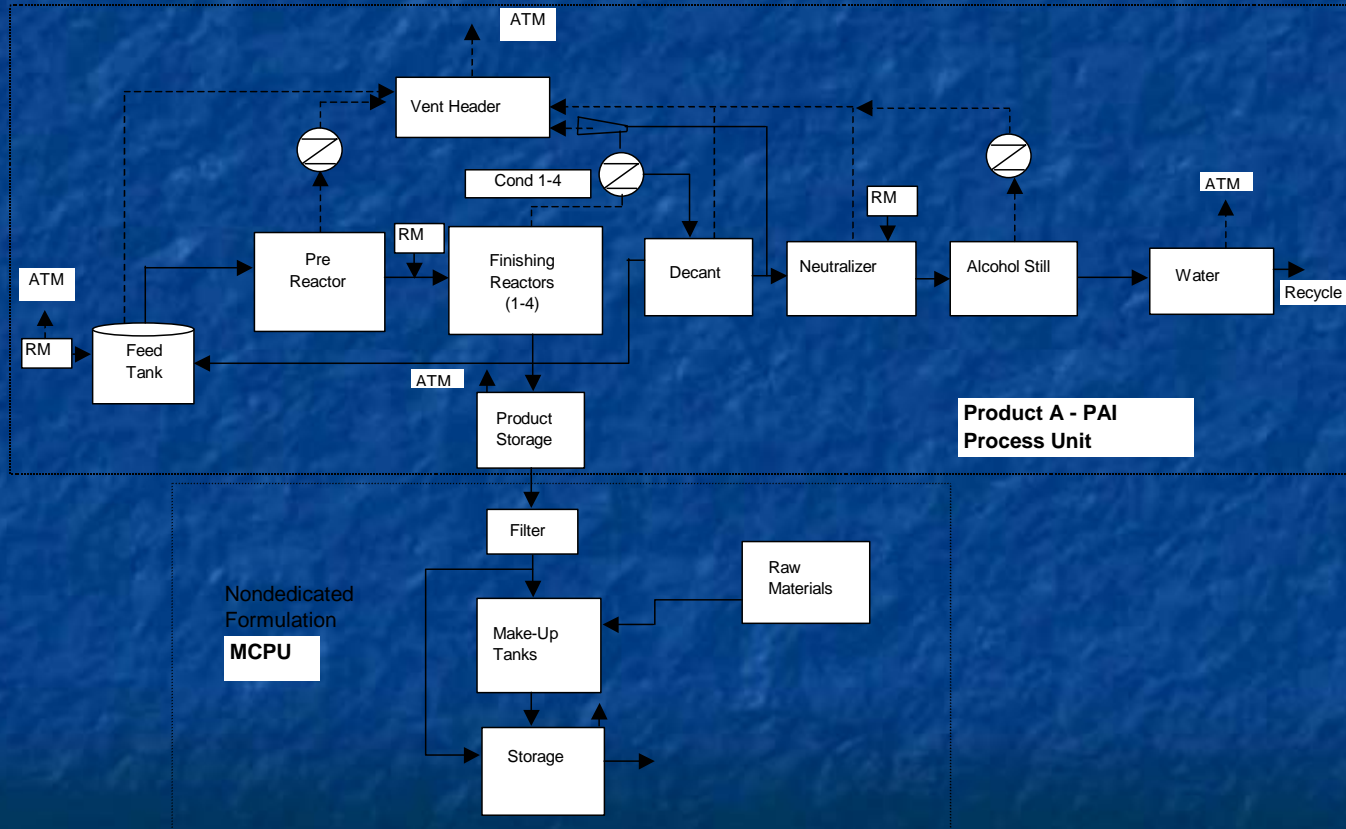
Overlapping rules

- MON as alternative compliance
 - Tanks - 40 CFR part 60 subparts Kb and Y
 - Vents – subparts DDD, III, NNN, and RRR
 - Racks – part 61 subpart BB
 - Equipment leaks
 - part 60 subpart VV
 - part 61 subpart V
 - Wastewater
 - part 63 subparts GGG and MMM
 - part 61 subpart FF

Process Unit Group

- Identify equipment associated with at least one nondedicated MCPU
- Add other nondedicated process unit with common equipment
- Determine primary product for 5 year period and comply with subpart GGG, MMM, or FFFF
- Adding process units allowed
- Redetermine primary product every 5 years

PUG and Overlapping Standards



PUG and Overlapping Standards

- No shared processing equipment – no PUG
- May comply with FFFF for wastewater

General Standards

- Compliance requirements - subpart SS
 - §63.982 (b) for closed vent with flare
 - §63.982 (c) for closed vent with control
 - §63.982 (d) for fuel gas system (tanks and racks)
 - §63.982 (e) for recovery device (continuous vents)
 - §63.994 for halogen reduction device

Review of subpart SS

- Standardized standards
 - Closed vent systems
 - Control devices – flare and nonflare
 - Recovery devices
 - Routing to fuel gas system or process
- Process vents
- Storage tanks
- Transfer racks
- Equipment leaks

Subpart SS

- Closed vent system requirements
 - Bypass monitoring
 - Inspections
- Flare requirements
- Incinerators, boilers, and process heaters
 - Performance tests
 - Monitoring requirements

Subpart SS

- Absorbers, condensers, carbon adsorbers
 - used as control devices
 - used as recovery devices
 - Performance tests
 - Monitoring requirements
- Halogen scrubbers
 - Testing
 - Monitoring
- General performance test requirements
- Recordkeeping

General Standards

- Determine halogenated vent per §63.115
- Combined emission streams
- Use design evaluation from subpart GGG for small control devices
- Supplemental gases defined in MON

General Standards

- No excused excursions
- No percent reduction compliance demonstration with TOC
- No flare control for halogenated vents, HCl, HF, or Cl₂
- Use Table 4 for surge control vessels and bottom receivers

Standards for Continuous Vents

- Table 1 for Group 1 vents
 - 98 percent reduction or 20 ppmv
 - Flare (or boiler per subpart SS)
 - Recovery to TRE of 1.9
 - Reduce halogens after combustion by 99 percent, to 20 ppmv, or 0.45 kg/hr
 - Reduce halogen atoms before combustion to 20 ppmv or 0.45 kg/hr
- Use §63.982(e) if using recovery device

Standards for Batch Vents

- Table 2 for Group 1 vents
 - Reduce total HAP from sum of vents by 98%
 - Reduce total HAP from sum of vents by 95% with recovery device
 - Reduce HAP from any individual vent with flare or to 20 ppmv
 - Reduce halogen from halogenated vent before or after combustion device

Batch Vents

- Determine group status
- No emission estimates required w/ alternative standard or control device operated at hypothetical worst case
- Exceptions to subpart SS
 - Process condensers not control devices
 - Initial compliance under worst-case conditions
 - Daily or block averaging allowed
 - Periodic verification for devices < 1 tpy
 - Correction for supplemental gases

Hydrogen Halide and Halogen HAP

- Table 3
 - Reduction by 99% for vents from affected process (sum of vents > 1,000 lb/yr)
 - Reduction to 20 ppmv
- Comply with §63.994
- Design evaluation allowed for any size device
- Caustic strength may be monitored

Standards for Storage Tanks

- Table 4 for Group 1 tanks
 - Comply with 40 CFR part 63 subpart WW
 - Comply with subpart SS requirements for process vents
 - Reduce halogen from halogenated vent before or after combustion device
 - Use vapor balancing alternative from subpart GGG

Standards for Transfer Racks and Equipment Leaks

- Table 5 for Group 1 racks
- Table 6 for eq. lks.
- Comply with subpart TT for batch only MCPU
- Pressure testing allowed
- Flexible hoses not considered in reconfiguration

Standards for Wastewater

- Table 7 for Group 1 wastewater streams
 - 10,000 ppmw total HAP (>50 ppmw Table 8)
 - 1,000 ppmw total HAP at 1 liter per minute
 - 30,000 ppmw Table 9 (<50 ppmw Table 8)
- Planned routine maintenance – 240 hours for wastewater tanks
- Offsite management and treatment
 - RCRA treatment needs no certification
 - Table 9 HAP streams to offsite treatment

Compliance Alternatives

- Pollution prevention
- Emissions averaging
- 20/50 ppmv outlet standard

Notifications and Reports

- Initial notification
- Notification of performance test
- Precompliance report
- NOC status report
- Compliance reports

Records

- As required by referenced subparts
- Operating scenario
- Group 2 batch vent emissions
- PUG documentation

Questions?