

Exemption Recordkeeping – What’s Acceptable

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What are we going to cover?

- Recordkeeping recommended practices
- Which exemptions require extensive records?
- How do I show compliance?
- Rule 278a
- Rule 285(2)(c) – Meaningful Change
- Rule 287(2)(c)
- Rule 290
- Rule 291

P.E.R.R. For Exemptions

- General exemption recordkeeping guidelines:
 - Process – Identify the process
 - Exemption – what exemption are you using
 - Reasoning – what is your justification for using this
 - Records – what records are needed

A word of warning....

- Definitions count
- Cold Clean vs. Parts Washer
 - Rule 281(2)(h) is for cold cleaners
 - Rule 281(2)(k) is for aqueous based parts washer
- What is the difference?
 - 103(aa) “Cold cleaner” = a tank containing organic solvent with a VOC content of 5% or more...
 - (q) “Aqueous based parts washer” = a tank containing liquid with a VOC content of less than 5%...

Exemptions That Are a Little “Extra”

- Exemptions that require additional documentation and/or recordkeeping
 - Rule 278a
 - Rule 285 – Meaningful Change Exemption
 - Rule 287(2)(c) – Coating Line Exemption
 - Rule 290 Limited Emissions Exemption
 - Rule 291 – De Minimis Exemption

Rule 278a

- ...must be able to provide information demonstrating the applicability of an exemption.

Rule 285 – Meaningful Change Exemption

- “Meaningful change” is defined in the rule as a change in the toxic air contaminants emitted that results in an increase in the cancer or non-cancer hazard potential that is 10% or greater, or which causes an exceedance in the permit limit.

Rule 287(2)(a) & (c) – Coating Line Exemption

- Coating rate not more than 200 gallons, as applied, minus water, per month
- Filters are properly maintained and operated
- Monthly Recordkeeping

Rule 290 – Limited Emissions Exemption

- Calculate the Potential to Emit (PTE) of the source
- Toxics thresholds are based on screening levels of Air Toxics
- Exempts SOME particulate sources

Rule 291 – De Minimis Exemption

- Identify the quality, nature, and quantity of the air contaminant emissions are maintained to demonstrate that the potential emissions are less than those listed in subdivisions (a) to (d) of this sub-rule and Table 23

What Records Do You Need to Show Compliance?**Rule 278a – Documenting Determinations**

- Rule 278a specifically requires: PERR – Process, including date of installation, exemption, reasoning, records

Rule 278a(1)(a) and (b) Example

EQUIPMENT/PROCESS	EMISSION UNIT (IF APPLIES)	EMISSION UNIT DESCRIPTION	CONTROL EQUIPMENT	INSTALLATION DATE	PERMIT/EXEMPTION	NOTES	RECORDS
Coating Line	EU COATING LINE	Plastic parts coating line	RTO	XX/XX/2017	PTI XXX-16	Permit Issued xx/xx/2017	See permit
Sanding/Fixing Area	N/A	Line foil cutting	Torit dust collector	XX/XX/2000	Rule 285(2)(l)(vi)(b)	5 CFM dust collector	Equipment has emissions that are released only into the in-plant environment
Adhesive line	N/A	Adhesive line for packaging	N/A	XX/XX/2001	Rule 287(2)(a)	Adhesive line is only used on Wednesday. The application rate is 1 pound of adhesive a day	Daily adhesive usage records.

But what about part C?

- Provide analysis that rule 278 does not apply.

Rule 278(1)

- What exactly do I need to demonstrate?
- No Prevention of Significant Deterioration (PSD) or New Source Review (NSR)
- No increase in actual emissions
- No new/reconstructed major source of Hazardous Air Pollutants (HAPs) defined in Part 63 NESHAP
- No Part 61 NESHAP

Rule 278(1)(c) – Emissions Calculation Example

- Step 1: Calculate emissions from all sources in the project/activity
- Step 2: Summarize emissions from both the boiler and generator
- Step 3: Is it PSD or non-attainment NSR (NANSR) Subject (Per Rule 278(1)(a))?
- Step 4: Compare the emissions to the significance levels (per Rule 278(1)(b))

Rule 278(2) & (3)

- Step 5: HAPs

Rule 278(4)

- Exemptions ONLY apply to the requirement to obtain a PTI only.
- Does our project qualify for an exemption? YES!
- Are the units subject to federal standards? YES!

Rule 285(2)(c) – Meaningful Change WARNING! Alphabet Soup Ahead!

- Acronyms used in this section:
- PTE: Potential to Emit
- PSD: Prevention of Significant Deterioration
- PTI: Permit to Install
- NSR: New Source Review
- HP: Hazard potential
- TACs: Toxic Air Contaminants

Meaningful Change – Abridged

- Meaningful change is a meaningful increase in quality and nature or quantity of an air contaminant
- Increase of 10% or greater from the baseline of:
 - Noncancer/Cancer Hazard Potential (HP)
 - Potential to Emit of Toxic Air Contaminants (TACs)
- Change that causes a permit exceedance

Meaningful Change Example

- Step 1: Identify the TACs for both the existing permitted emission unit and the emission unit after the proposed change
- Step 2: Determine the hourly PTE in lbs/hr for each TAC
- Step 3: Identify all screening levels (SLs) for all TACs identified in Step 1.
- Step 4: If there are any ITSLs with averaging times that are not annual, convert them to adjusted annual averages
- Step 5: Calculate the HP for each SL.
- Step 6: Find the highest HP for noncancer (based on ITSL) and the highest for cancer (based on IRSL) for both the existing operation and proposed modification
- Step 7: Determine the percent change in HP for both noncancer and cancer

$$\% \text{ Change} = \frac{(\text{Proposed HP}_{\max} - \text{Baseline HP}_{\max})}{\text{Baseline HP}_{\max}} \times 100$$

Things to Remember

- Noncarcinogen ≠ Carcinogen
- Baseline ONLY changes with a new PTI
- Memo AQD-025 is your friend
- Need more help? Call your inspector

What records are needed to show compliance with Rule 285(2)(c)?

- Past and current SDS
- Calculations demonstrating meaningful change

Rule 287(2)(a) & (c)

- Rule 287 covers coating equipment
 - (a) An adhesive coating line with an application rate of < 2 gallons per day
 - (c) A surface coating line with coating rate < 200 gallons/month

Rule 287(2)(c) Example


- Mr. Matchbox owns a tiny car coating operation which used the following coatings last month:
 - 25 Gallons of Primer
 - 35 Gallons of Red Paint
 - 32 Gallons of Blue Paint
 - 32 Gallons of Green Paint
 - 60 Gallons of Top Coat
 - 100 Gallons of Clean Up Solvent
- Is Mr. Matchbox in compliance? Let's see....

Records needed to show compliance with Rule 287(2)(a) & (c)

- Current SDS
- Calculations demonstrating application rate or coating usage
- Records kept for at least 2 years

Records needed to show compliance with Rule 290

- Current SDS for chemicals
- Potential to Emit (PTE) calculations
- Screening Levels



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

RULE 287(2)(c) PERMIT TO INSTALL EXEMPTION RECORD: SURFACE COATING EQUIPMENT

Applicable Rule: Rule 287(2)(c) of the Michigan Air Pollution Control Rules

SOURCE NAME: Matchbox Tiny Coating Corp.

MONTH/YEAR: May 2018

Manufacturer (a)	Product ID Number (b)	Coating Type (c)	Coating Usage (gal) (d)	Operator's Initials (e)	Cleanup Solvent Usage (gal) (f)
Acme Products	P1	Primer	25.00	MM	
Acme Products	RP1	Red Paint	35.00	MM	
Acme Products	BP1	Blue Paint	32.00	MM	
Acme Products	GP1	Green Paint	32.00	MM	
Acme Products	TC1	Topcoat	60.00	MM	
Acme Products	CU1	Clean Up Solvent		MM	100.00
			184.00		100.00
			Total coating used (gal) (<200 gal/month)		Total cleanup solvent used (gal)

- Calculations demonstrating that emissions are below identified emission limits

Rule 291 – De Minimis Emissions Rule 291

- Based on potential emissions
- Quality, nature, and quantity of the air contaminant emissions
- No ongoing record keeping is required
- Allows small amounts of TACs < 0.04 µg/m³
 - TACs based on the ITSL/IRSL

Rule 291 Example

- Facili-Tee wants to use Rule 291 for their Waste Water Evaporators

What records are needed to show compliance with Rule 291?

- Rule 278 Determination
- PTE Calculations
- Description of the emission unit
- Documentation showing that the quality, nature, and quantity of air contaminant emissions are not above limits

REVIEW

P.E.R.R Rule 278a

- Must be able to provide information demonstrating the applicability of an exemption.
- Rule 278a specifically requires:
- Analysis demonstrating that Rule 278 does not apply

Rule 285(2)(c) – Meaningful Change

- Meaningful change is a meaningful increase in quality and nature or quantity of an air contaminant
- Increase of 10% or greater from the baseline
- When in doubt, refer to the memo AQD-025

Rule 287(a) & (c)

- Requirements to track usage of coatings an/or adhesives
- Filters properly maintained
- Records on file for 2 years

Rule 290

- Limited emissions
- Calculate the Potential to Emit (PTE)
- Know your ITSLs and IRSLs
- Questions to ask yourself:
 - What is your emission unit?
 - What is your activity?
 - Does it meet Rule 278?
 - Are your emissions controlled or uncontrolled?

Rule 291

- “De minimis” emissions
- Based on potential emissions
- Documentation identifying the quality, nature, and quantity of the air contaminant emissions

No ongoing record keeping is required.