

REINFORCED PLASTICS COMPOSITES PRODUCTION MACT CHECKLIST

Name _____

Address _____

Facility ID _____ Date _____

New source (commence construction after 8/2/01) or existing source? _____

Small business or large business? _____ # of employees? _____

Total HAP Emissions (circle) < or > 100 tpy < or > 250 tpy

The following compliance tables pertain to existing sources with emissions below the threshold for above-the-floor MACT and for new sources with emissions less than 100 tons per year (a small existing business and emit less than 250 tpy or a large existing business and emit less than 100 tpy).

Existing sources with emissions above the threshold for above-the-floor MACT and new sources with emissions greater than 100 tons per year must install an add-on control to reduce emissions by 95%.

OPEN MOLDING

RESIN APPLICATION		Maximum Point Value	Manufacturing Technique*	% HAP	Actual Point Value	12-Month Rolling Avg.
Corrosion Resistant	Mechanical	190 lb/ton				
	Filament Winding	163 lb/ton				
	Manual	124 lb/ton				
Non-Corrosion Resistant	Mechanical - Filled	144 lb/ton				
	Mechanical - Unfilled	110 lb/ton				
	Filament Winding	178 lb/ton				
	Manual	83 lb/ton				

TOOLING	Maximum Point Value	Manufacturing Technique*	% HAP	Actual Point Value	12-Month Rolling Avg.
Mechanical	256 lb/ton				
Manual	123 lb/ton				

CLASS I FIRE & SMOKE	Maximum Point Value	Manufacturing Technique*	% HAP	Actual Point Value	12-Month Rolling Avg.
Mechanical	575 lb/ton				
Filament Winding	253 lb/ton				
Manual	311 lb/ton				

RECORDS

- Can comply for open molding and centrifugal casting
 - Each point value for each operation
 - Weighted average across operations
 - Use one resin across all operations
- Resin Use
 - How much
 - Where used
- Hap %
- Calculations
 - Monthly
 - 12 month rolling

Manufacturing Techniques

- **Mechanical Application**
 - Atomized

Non-Vapor Suppressed	Vacuum Bagging w/ roll out
Vapor Suppressed	Vacuum Bagging w/o roll out
 - Non-Atomized

Non-Vapor Suppressed	Vacuum Bagging w/ roll out
Vapor Suppressed	Vacuum Bagging w/o roll out
- **Filament Winding**

Non-Vapor Suppressed	Vapor Suppressed
----------------------	------------------
- **Manual Resin Application**
 - Hand Lay-up/Buck & Tool Application

Non-Vapor Suppressed	Vacuum Bagging w/ roll out
Vapor Suppressed	Vacuum Bagging w/o roll out

GEL COAT	Maximum Point Value	Manufacturing Technique	% HAP	Actual Point Value	12-Month Rolling Avg.
Tooling	394 lb/ton	Atomized Non-Vapor Suppressed			
White/Off White Pigmented	265 lb/ton	Atomized Non-Vapor Suppressed			
All other Pigmented	377 lb/ton	Atomized Non-Vapor Suppressed			
Clear Production	504 lb/ton	Atomized Non-Vapor Suppressed			

RECORDS

- Gel Coat Used
 - How much
 - Type
- Hap %
- Calculations
 - Monthly
 - 12 month rolling

CENTRIFUGAL CASTING

	Maximum Point Value	Manufacturing Technique	% HAP	Actual Point Value	12-Month Rolling Avg.
Corrosion Resistant	536 lb/ton	Non-Vapor Suppressed			
Non-Corrosion Resistant	396 lb/ton	Non-Vapor Suppressed			

RECORDS

- Resin Use
 - How much
 - Where used
- Hap %
- Calculations
 - Monthly
 - 12-month rolling

Source type is specified for following requirements.

WORK PRACTICES

	Standard	Practice Used	Records
Cleaning – New or existing	Do not use cleaning solvent that contain HAP		
Materials Storage – New or existing	Keep containers that store HAP materials closed or covered except during addition or removal of materials		
Pultrusion using wet enclosure - Existing	Keep access panels, doors, and/or hatches closed whenever resin is in the bath, except that access panel, door, and/or hatches may be open 30 minutes per 8 hour shift or 45 minutes per 12 hour shift		
Compression and Infection Molding – New or existing	Uncover, unwrap or expose only one charge per mold cycle per compression/injection molding machine		
SMC Manufacturing (compounding) – Existing below threshold & New below 100 tons HAP	Close or cover doctor box on each machine		
	Fold or seal edges of SMC prior to storage and/or transport		
	Use nylon film or film with an equal or lower permeability to styrene to enclose		
BMC Manufacturing & Mixing – Existing below threshold & New below 100 tons HAP	Use mixer covers with no visible gaps present in covers		
	Not actively vent mixers to the atmosphere		
	Keep mixer covers closed during mixing except when adding materials to mixers		
SMC Mfg. – Existing above threshold & New at or above 100 tons	Same as listed above plus add-on control to reduce emissions by 95%		
BMC Mfg. & Mixing – Existing above threshold & new at or above 100 tons	Same as listed above plus add-on control to reduce emissions by 95%		

PULTRUSION

EXISTING

- Below the threshold for above-the-floor MACT
 - Reduce total HAP emissions by at least 60 weight percent

- Above the threshold
 - Install add-on control to reduce emissions by 95% or
 - Use direct die injection

NEW

- Below 100 tons HAP:
 - Reduce total HAP emissions by at least 60% or
 - Use direct die injection
- At 100 tons or greater:
 - Add-on control to reduce emissions by 95% or
 - Use direct die injection

RECORDS

CONTINUOUS LAMINATION/CASTING

EXISTING

- Below the threshold for above-the-floor MACT
 - Reduce total HAP emissions by at least 58.5 weight percent, or
 - Not exceed an emission limit of 15.7 lbs of HAP per ton of neat resin plus and neat gel coat plus
- Above the threshold
 - Add-on control to reduce emissions by 95% or
 - Comply with an emission limit of 1.47 lbs HAP per ton of resin and gel coat processed

NEW

- Below 100 tons HAP
 - Same as existing below threshold
- At or above 100 tons HAP
 - Add-on control to reduce emissions by 95%

RECORDS

FACILITY RECORDS

On site for 2 years, available for 5 years

- Startup, Shutdown, & Malfunction (SSM) Plan
 - Adequate plan
 - Records of all SSM events
 - Reports of actions taken not consistent with plan
- Notifications & Reports
- Any other records needed to demonstrate compliance