PREPARING A NOTICE OF MACT APPROVAL UNDER §63.43(g) OF 40 CFR 63, SUBPART B MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY EMISSION LIMITATION FOR CONSTRUCTED OR RECONSTRUCTED SOURCES

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INTRODUCTION

The purpose of this guidance is to provide those of you with authority to implement 40 CFR 63, subpart B, Requirements for Control Technology, guidance on how to prepare a Notice of MACT Approval, should one be required. The Notice of MACT Approval is one of the administrative procedures in §63.43(c) for sources requesting approval to construct or reconstruct a major source of hazardous air pollutants (HAP) if a National Emission Standards for Hazardous Air Pollutants (NESHAP) has not been promulgated under sections 112(d), 112(h), or 112(j) of the Clean Air Act. Unless the source is covered by, or elects to be covered by, the title V permit program in the State, §63.43(c)(2) governs the choice of review process:

> "(2) When the owner or operator is not required to obtain or revise a title V permit (or other permit issued pursuant to title V of the Act) before construction or reconstruction, the owner or operator (unless the owner or operator voluntarily follows the process to obtain a title V permit) shall either, at the discretion of the permitting authority:
>
> (i) Apply for and obtain a Notice of MACT Approval according to the procedures outlined in paragraphs (f) through (h) of this section; or
>
> (ii) Apply for a MACT determination under any other administrative procedures for preconstruction review and approval . . . ."

Once issued, the Notice of MACT Approval will serve as the permitting mechanism for the source until replaced by a Title V or other operating permit.

Regardless of the review process, you, the delegated agency or EPA region, are responsible for ensuring that your case-by-case maximum achievable control technology (MACT) determination is consistent with the principles of MACT determinations outlined in §63.43(d) and supported by a complete application submitted by the source according to §63.43(e). Following is a summary of the four major principles of a MACT determination:

(1) The MACT emission limitation or MACT requirements cannot be less stringent than the emission control which is achieved in practice by the best controlled similar source.

(2) Based on available information, the MACT emission limitation and control technology must achieve the maximum degree of reduction in emissions of HAP, taking into consideration the costs of achieving such emissions reductions and any non-air quality health and environmental impacts and energy requirements associated with the emissions reductions. (Note that while cost or other impacts can be considered in determining what sources are similar, cost or other impacts

cannot be used to circumvent the requirement in (1) above that MACT be best control.)

(3) If you determine under the criteria set forth in section 112(h)(2) of the Act that it is not feasible to prescribe or enforce an emission limitation, the MACT determination may be a specific design, equipment, work practice, or operational standard, or a combination of these.

(4) If we (EPA) have either proposed a relevant emission standard under section 112(d) or section 112(h) or adopted a presumptive MACT determination for the source category that includes the constructed or reconstructed major source, then you must consider these MACT requirements in developing the case-by-case determination.

The following example contains information that should be included in a Notice of MACT Approval, based on an appropriate MACT determination developed as discussed above. If necessary, the perimtting authority may require any other additional information needed to make the MACT determination or to facilitate enforcement. The example demonstrates how the MACT determination is to be translated into Federally enforceable, source-specific conditions. The example represents a Notice of MACT Approval for a fictitious reinforced plastics/composites source (e.g., a tub/shower, recreational vehicle parts, spa, or other manufacturer who fabricates resin fiberglass parts). However, many of the requirements contained in the example notice are applicable to all sources. Contact Kathy Kaufman, OAQPS/ITPID at (919) 541-0102 or at kaufman.kathy@epamail.epa.gov or your U.S. EPA regional office representative for more information.

The Notice contains both suggested language for enforceable permit conditions as well as guidance and instructions on how to complete each section of the Notice. The guidance and instructions are in *italics*.

Example Notice of MACT Approval

Notice of MACT Approval
CFR 40, Part 63, Subpart B
Maximum Achievable Control Technology Emission Limitation for
Constructed or Reconstructed Sources

This notice establishes federally enforceable maximum achievable control technology (MACT) emission limitation(s) and requirements for *Name of major source* for the affected source(s) located at *Location of all affected sources*. The emission limitations and requirements set forth in this document are federally enforceable on *Effective date of Notice*. This Notice will expire within 18 months if construction or reconstruction has not started, unless we *(the permitting authority)* have granted an extension of up to 12 months. For further information contact: *Name and phone number of permitting authority contact*.

A. Legal authority: *The Notice should specify the legal authority under which it is issued. This should include a reference to the enabling legislation and to the legal authority to issue and enforce the conditions contained in the notice. These provisions are common to nearly all permits and usually are expressed in standard language included in every permit. These provisions articulate the contract-like nature of a permit in that it allows a source to emit air pollution only if certain conditions are met.*

B. Major source information:

1. Mailing address of owner or operator: *Insert information.*

2. a. Mailing address for location of major source: *Insert information.*

b. Site address: *Insert information, including latitude and longitude of site. The latitude and longitude are useful in the case site-based risk assessment modeling is ever required.*

3. Source category(ies) for major source: *Identify the section 112(c) source category or categories that the affected source falls under, if any exist. (A current list of section 112(c) source categories can be found on EPA's web page at "http://www.epa.gov/ttn/uatw/mactscc.txt")*

4. Affected source:

   a. Identify the affected source (stationary sources or group of stationary sources that are the subject of this Notice of MACT Approval.) Any addition to the list of stationary sources must be preceded by an amendment to the Notice of MACT Approval. *Depending on the source, you may also need to identify the emission streams that are associated with the emission unit, such as waste streams that are directed to wastewater controls.*

   b. Identify any hazardous air pollutant (HAP) emission sources at the site that are not included as part of the affected source, with a brief statement/rationale that explains their exclusion (for example, that they are covered by another source category or MACT standard).

5. Major source determination:

   a. List all hazardous air pollutants that are or could possibly be emitted from each affected emission unit(s). Any pollutant not listed in this section cannot be emitted by the emission unit without an amendment to the Notice of MACT Approval. *During the MACT determination process, you will have to work with the source and their raw material suppliers to ensure that you have a complete list of HAP. For example, coatings may be listed by a trade name in the application, which would not provide sufficient detail to determine if a HAP compound is contained in the*

coating. Also, coatings that are thinned or have solvents added b athe user should be identified.

b. Document the information that leads the regulatory agency to believe that the source, once constructed or reconstructed, will be a major source, as defined by the Clean Air Act. This determination is based on the source's potential to emit, considering controls, of HAP.

6. Type of construction or reconstruction event: *Provide project description. Briefly describe whether the action is a construction or reconstruction event (e.g., the owner or operator plans to construct a new facility to manufacture product x or the owner or operator plans to reconstruct product line xx).*

7. Expected commencement date for construction or reconstruction: *The date of "commenced construction or reconstruction" should be the date actual on-site activities begin, not just the date that contractual obligations are entered into.*

8. Expected completion date for construction or reconstruction: *Provide date.*

9. Anticipated date of start-up for the constructed or reconstructed major source: *Provide date.*

C. MACT Standards:

One or more of the following standards may be appropriate for the affected source subject to this Notice of MACT Approval. The following list is provided for illustration, and may not include all possible emission limitation scenarios.

Emission standards are defined by section 112(d)(2) of the Clean Air Act, as measures that (1) reduce the volume of, or eliminate emissions of, HAP through process changes,

substitution of materials or other modifications, (2) enclose systems or processes to eliminate emissions, (3) collect capture, or treat HAP when released from a process, stack, storage, or fugitive emissions point, (4) are design, equipment, work practice, or operational standards (including requirements for operator training or certification), or (5) are a combination of the above. Your Notice should specify as many of these standards that apply to your affected source.

Note that section 112(h) only allows the use of design, equipment, work practice or operational standards when the Administrator judges that it is infeasible to prescribe or enforce a numerical emission standard because the regulated pollutant can't be emitted through a conveyance designed and constructed to emit or capture such pollutant, that such conveyance would be inconsistent with any Federal, State or local law, or the application of the measurement methodology to a particular class of sources is not practicable due to technological and economic limitations.

Because of the nature of the reinforced plastics source category, numerical emission limitations in the form of a percent reduction or outlet emissions rate are unlikely, except in the case of a requirement to vent emissions to an add-on control device. However, in developing a Notice of MACT approval for other source categories, these formats should be considered as the primary form of the standard.

1. <u>Cap on material usage</u>. *Limit the amount of materials used per month and year to ensure that emissions stay below required threshold. For example, the total usage of the sample resin system shall not exceed XX tons in any 40-hour production period or XXX tons per year (12-month rolling average). Use of a cap is generally tied to a related requirement limiting the HAP content of the coating system (see 2, below).*

2. <u>Raw material requirements</u>. *Consider whether requiring the use of compliant materials such as resins, gel coats and cleaning solvents that have a limit on the*

content of HAP in them (such as weight percent of HAP) is MACT. You could also consider a no-HAP cleaning solvent requirement, which would eliminate the need to further manage cleaning emissions.

3. Process changes.

   a. Require the use of specific low-emitting application techniques. *Different application techniques/tools can result in reduced emissions from the application process. For example, non-atomized resin application (e.g., bucket and brush applications, resin rollers, flow coaters, or fabric impregnators) can significantly reduce emissions from application operations. The source could also be required to install flow meters on the guns to track application rates by operator/by product, etc.*

   b. Closed or partially closed molding techniques. *Require the use of closed molding techniques or partially closed molding techniques in addition to the application techniques mentioned in item 3.a., above, for some/all emission units. A closed molding technique is one in which both resin application and curing occur in a closed system. A partially closed mold technique, such as vacuum bagging, involves applying the resin in an open process and, immediately following the application, placing a bag over the mold where a vacuum is pulled such that there is no roll out and curing occurs under the bag.*

4. Add-on controls. *Add-on controls should be considered in the MACT determination. The EPA has seen demonstrations of add-on controls successfully reducing the emissions from the high flow air streams in both new source and existing source (retrofit) situations. Such provisions would require the source to capture emissions from process operations and vent them to a control device with*

a required efficiency or demonstrated performance. You would need to include provisions to ensure adequate capture of emissions as well as emissions reduction.

5. Reduce material, storage and handling emissions by the following techniques:

   a. Storage system requirements. *For example, use bulk delivery of resins to reduce evaporative loss of resin.*

   b. Container requirements. *For example, use closed containers to hold all polyester resins and gel coating materials, any scrap materials resulting from cutting and grinding, cleaning materials, and paper or cloth used for cleaning operations is such a manner to effectively control VOC/HAP emissions to the atmosphere.*

   c. Mixing operations. *You could require closed mixing operations, although you should consider the need for exemptions for adding and removing materials, hand mixing, etc.*

6. Implement an operator training course. *One key technique to reduce evaporative emissions is to ensure that personnel are trained in and use consistently procedures to minimize the application of excess material and the evaporation of raw materials and waste materials. For example, the Notice could specify: "The permittee shall train all new and existing personnel, including contract personnel, who are involved in gel-coating, spray layup, or cleaning and washoff operations, or other operations. All new personnel, those hired after the effective date, shall be trained upon hiring. All existing personnel, those hired before the compliance date, shall be trained within 1 month of the effective date. All personnel shall be given refresher training annually."*

D. Maintenance Requirements:

1. Startup, shutdown, and malfunction plan. Prepare and implement a startup, shutdown, and malfunction plan that complies with §63.6(e) of the 40 CFR 63 General Provisions. At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions to the levels required by this Notice.

2. Operator training program. *A training program can be left entirely to the source to design or may include minimum requirements such as a list of all current personnel by name and job description that are required to be trained and their status under the training program (e.g., initial training date, annual training received date); a minimum schedule/number of hours that the training program must incorporate; an outline of the subjects covered in the initial and refresher training for each position or group of personnel, and lesson plans that include appropriate application techniques, appropriate equipment set and adjustment to minimize overspray; and how successful completion of the training is demonstrated and documented.*

E. Compliance Demonstrations, Performance Testing, and Monitoring Requirements:

1. Compliance demonstration.

a. Initial compliance demonstration. *This is where the agency would specify any requirements that must be in place at startup of the section 112(g) facility. This demonstration is most applicable for sources that use add-on control techniques that would require a performance test to demonstrate compliance with an emission limitation and/or to establish*

monitoring parameters. In this case, section E.2. of the Notice should specify applicable test methods, testing conditions, sampling procedures, procedures to analyze/report the data collected, and any necessary quality assurance/quality control.

In our example, initial compliance could be demonstrated by requiring the source to submit a an initial compliance certification that certifies that the proper equipment is in place, that an operator training program has been established, etc. Alternatively, the source could submit the certification based on the first month (or whatever the applicable period is) of usage/material data.

b. Ongoing compliance demonstration. *Ongoing compliance is where the source demonstrates, through monitoring and/or recordkeeping, that the source is in continuing compliance with the emission limitations. Once again, in the case of add-on controls, this is usually accomplished through the monitoring of either an emission stream or some surrogate/parameter. For example, compliance may be demonstrated on a periodic basis by the submission of a compliance certification that documents the use of required materials, flow rate records, or following required practices, etc. The Notice should include any calculations to be performed by the source to demonstrate compliance and specify the period of compliance (months/days, straight averages/rolling averages, etc.) Section F should specify the specific timing of reports and recordkeeping requirements related to a compliance demonstration.*

2. Performance Testing: *Unless meeting the emission limitations involves the use of an add-on control technology or there are requirements for the source to*

demonstrate the HAP/VOC content of resins and gel coats, this section may not be needed in the actual Notice for this example.

3. Monitoring Requirements: *Once again, traditional monitoring requirements may not be used in this example Notice. The exception might be the periodic testing of batches of resins and gel coats to verify HAP content. In general, however, recordkeeping and reporting requirements are the means of gathering the information needed to demonstrate compliance. If the use of spray gun flow meters is required, there should be requirements to regularly or continuously monitor the meter and collect the required data.*

F. Reporting and Recordkeeping Requirements:

1. Submit initial compliance certification. *Consistent with the 40 CFR 63, subpart A General Provisions, the source should submit an initial compliance certification.*

2. Ongoing compliance certification. *Consistent with the 40 CFR 63, subpart A General Provisions, the source should submit ongoing compliance certifications. These certifications should include any periods of noncompliance and actions taken by the source to come back into compliance. Alternatively, the source could be required to report every instance of noncompliance shortly after occurrence.*

3. Notices of failure to follow plans. *The Notice should include provisions for sources to follow in cases where they fail to follow their startup, shutdown, and malfunction plan.*

4. Record retention. The source shall maintain all records and reports in a form suitable and readily available for expeditious inspection and review. The reports

and records shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

5. Required records. *The source should keep those records needed to document its compliance demonstrations. Examples include material usage, production, HAP content of resins and gel coats, employee training records, source test results, and emissions data.*

G. Other Requirements:

The source shall comply with all applicable requirements specified in the General Provisions set forth in subpart A of 40 CFR part 63, including, but not limited to notification of operation, and maintenance, performance testing, monitoring, reporting, and recordkeeping requirements.