

SYNTHETIC MINOR OPERATING PERMIT

PERMITTEE: QUALITY FAB, INC.
FACILITY NAME: QUALITY FAB, INC.
LOCATION: ARITON, DALE COUNTY, ALABAMA

| PERMIT NUMBER | DESCRIPTION OF EQUIPMENT, ARTICLE, OR DEVICE |
|---------------|--|
| 604-0030-X001 | <ul style="list-style-type: none">• Facility-wide SMOP Limits• Plasma/Laser Cutting Table 1 with Baghouse• Plasma/Laser Cutting Table 2• Metal Cutting Process• Media Blasting Process• Steel Coating Process• Welding Process |

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, Ala. Code §§ 22-28-1 to 22-28-23, as amended, the Alabama Environmental Management Act, Ala. Code §§ 22-22A-1 to 22-22A-17, as amended, and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

ISSUANCE DATE: Draft

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. The Permittee shall keep this permit under file or on display at all times at the site where the facility for which the permit is issued is located and shall make the permit readily available for inspection by any or all persons who may request to see it.
5. Each point of emission, which requires testing, will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.
6. All air pollution control equipment shall be operated at all times while this process is operational. In the event of scheduled maintenance, unscheduled maintenance, or a breakdown of the pollution control equipment, the process shall be shut down as expeditiously as possible (unless this act and subsequent re-start would clearly cause greater emissions than continuing operations of the process for a short period). The Department shall be notified of all such events that exceed 1 hour within 24 hours. The notification shall include all pertinent facts, including the duration of the process operating without the control device and the level of excess emissions which have occurred. Records of all such events, regardless of reporting requirements, shall be made and maintained for a period of five years. These records shall be available for inspection.
7. All deviations from requirements within this permit shall be reported to the Department within 48 hours of the deviation or by the next workday while providing a statement with regards to the date, time, duration, cause, and corrective actions taken to bring the sources back into compliance.
8. In case of shutdown of air pollution control equipment for scheduled maintenance for a period greater than one (1) hour, the intent to shut down shall be reported to the Air Division at least 24 hours prior to the planned shutdown, unless accompanied by the immediate shutdown of the emission source.
9. In the event there is a breakdown of equipment in such a manner as to cause increased emission of air contaminants for a period greater than one (1) hour, the person responsible for such

equipment shall notify the Air Division within an additional 24 hours and provide a statement giving all pertinent facts, including the duration of the breakdown. The Air Division shall be notified when the breakdown has been corrected.

10. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.
11. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
12. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.
13. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
14. Unless otherwise stated in this permit or an applicable regulation, the Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

- a. The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
- b. A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).
- c. A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
- d. A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

All test reports must be submitted to the Air Division within 30 days of the actual completion of the test.

15. Any performance tests required shall be conducted and data reduced in accordance with the test methods and procedures contained in each specific permit condition unless the Director (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, or (3) approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific source is in compliance.
16. Records will be maintained of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the process equipment and any malfunction of the air pollution control equipment. These records will be kept in a permanent form suitable for inspection and will be retained for at least two (2) years following the date of each occurrence.
17. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
18. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

- a. by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;
- b. by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
- c. by paving;
- d. by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively

or in combination with one or all of the above control techniques, so that dust will not become airborne.

19. Precautions shall be taken by the Permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.
20. The Permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.
21. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
22. The following facility-wide Synthetic Minor Operating Permit (SMOP) Limits must be met:
 - a. Emissions of Volatile Organic Compounds (VOC) shall not exceed 95 tons per year.
 - b. Emissions of any individual hazardous air pollutant (HAP) shall not exceed 9.5 tons per year.
 - c. Emissions of any combination of HAPs shall not exceed 24.5 tons per year.
23. Compliance with the SMOP limits in Proviso 22 must be demonstrated by meeting the following requirements:
 - a. The following monthly production records must be maintained:
 - i. Operating hours of the plasma tables in hours per month.
 - ii. Operating hours of the metal cutter in the Metal Cutting Process in hours per month.
 - iii. Welding wire used in the Welding Process in pounds per month.
 - iv. Paint used in the Steel Coating Process in gallons per month.
 - v. Density, VOC content, and HAP content of each paint used.
 - vi. Abrasive used in the Media Blasting Process in pounds per month.
 - b. The following monthly emission calculations must be performed to show compliance with the facility-wide VOC limit:
 - i. Monthly VOC emissions from the Steel Coating Process must be calculated using Equation 1 of Appendix A of this permit.

- ii. VOC emissions per rolling twelve-month period must be calculated using Equation 2 of Appendix A of this permit.
 - c. The following monthly emission calculations must be performed to show compliance with the facility-wide HAP limits:
 - i. Monthly HAP emissions from the plasma tables must be calculated using Equation 3 of Appendix A of this permit.
 - ii. Monthly HAP emissions from the Metal Cutting Process must be calculated using Equation 4 of Appendix A of this permit.
 - iii. Monthly HAP emissions from the Welding Process must be calculated using Equation 5 of Appendix A of this permit.
 - iv. Monthly HAP emissions from the Steel Coating Process must be calculated using Equation 6 of Appendix A of this permit.
 - v. Monthly HAP emissions from the Media Blasting Process must be calculated using Equation 7 of Appendix A of this permit.
 - vi. Each monthly total-HAP emission calculation should be the sum of all HAPs emitted from the facility during the month. Rolling twelve-month HAP emissions should be calculated using Equation 8 of Appendix A of this document.
 - d. These records should be maintained in a form suitable for inspection for a period of at least 5 years.
24. The Plasma Tables, Metal Cutter, Welding Process, and Media Blasting Process should not emit particulate matter in excess of the applicable limit in ADEM Admin. Code. r. 335-3-4-.04(1).
25. The Plasma Tables, Metal Cutter, Welding Process, and Media Blasting Process shall not emit particulate of an opacity greater than twenty percent (20%), as determined by a six-minute average except that, during one six-minute period in any sixty-minute period; these units shall emit particulate of an opacity not greater than forty percent (40%).
26. Compliance with the opacity standards for the Plasma Tables, Metal Cutter, Welding Process, and Media Blasting Process shall be determined using one of the methods below:
- a. Method 9 of Appendix A-4 to 40 CFR Part 60 (Method 9).
 - i. Method 9 must be conducted by an observer that is certified and familiar with Method 9 procedures.

- ii. Method 9 shall be conducted during daylight hours.
 - iii. Method 9 observations should be documented using an ADEM Visible Emissions Observation Report.
 - b. Method 22 of Appendix A-7 to 40 CFR Part 60 (Method 22).
 - i. The observation must be done by an individual who is familiar with Method 22.
 - ii. To determine compliance with the opacity standards, a violation is defined as visible emissions observed for a total of six (6) minutes in any 60-minute period.
27. Continuous compliance with the opacity standards in Proviso 25 should be demonstrated by conducting weekly checks to determine the presence or absence of visible emissions from the plasma tables, Metal Cutting Process, Welding Process, and Media Blasting Process. The weekly checks should be performed while the units are in operation.
- a. If visible emissions are observed, corrective action shall be initiated within 1 hour. If visible emissions are still present after corrective action has been conducted, a visible emissions observation must be conducted with one of the methods in Proviso 26. The visible emissions observation must last for a period of at least 12 minutes to confirm that the opacity standards are not exceeded.
28. The following records must be maintained to demonstrate compliance with the opacity standards in Proviso 25:
- a. Records of deviations from the opacity standards in Proviso 25. This shall include the cause of the visible emissions, the corrective actions taken, records of any Method 9 or Method 22 observations, and the date, time, and duration of the deviation.
 - b. Records of weekly visual inspections required by Proviso 27. These shall include the date, time, and result of each inspection.
29. The Welding Process is subject to the applicable requirements of 40 CFR 63, Subpart XXXXXX, "National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories" [MACT XXXXXX] for welding affected sources [40 CFR §63.11514(a), 40 CFR §63.11514(b), and 40 CFR §63.11514(b)(5)].
- a. The provisions in 40 CFR Part 63, Subpart A, applicable to sources subject to 40 CFR §63.11514(a) are specified in Table 2 to MACT XXXXXX [40 CFR §63.11523].
30. The following requirements must be met to demonstrate compliance with MACT XXXXXX.

- a. The Permittee must demonstrate that management practices are being implemented by complying with the requirements in 40 CFR §63.11516(f)(2) through 40 CFR §63.11516(f)(8). The requirements in 40 CFR §63.11516(f)(1) through 40 CFR §63.11516(f)(8) do not apply when welding operations are being performed that do not use any materials containing metal fabrication or finishing metal HAP (MFHAP) or do not have the potential to emit MFHAP [40 CFR §63.11516(f)].
 - i. The Permittee must operate all equipment associated with welding operations according to manufacturer's instructions [40 CFR §63.11516(f)(1)].
 - ii. The Permittee must implement one or more of the management practices specified below to minimize emissions of MFHAP, as practicable, while maintaining the required welding quality through the application of sound engineering judgment [40 CFR §63.11516(f)(2)].
 - 1. Use welding processes with reduced fume generation capabilities (e.g., gas metal arc welding (GMAW)—also called metal inert gas welding (MIG));
 - 2. Use welding process variations (e.g., pulsed current GMAW), which can reduce fume generation rates;
 - 3. Use welding filler metals, shielding gases, carrier gases, or other process materials which are capable of reduced welding fume generation; or
 - 4. Optimize welding process variables (e.g., electrode diameter, voltage, amperage, welding angle, shield gas flow rate, travel speed) to reduce the amount of welding fume generated.
31. The following compliance test methods and procedures must be used to demonstrate compliance with MACT XXXXXX.
- a. Visual determination of fugitive emissions must be performed according to the procedures of EPA Method 22, of 40 CFR Part 60, Appendix A-7 (Method 22). The Permittee must conduct the EPA Method 22 test while the affected source is operating under normal conditions. The duration of each EPA Method 22 test must be at least 15 minutes, and visible emissions will be considered to be present if they are detected for more than six minutes of the fifteen-minute period [40 CFR §63.11517(a)].
 - b. If required, visual determination of emissions opacity must be performed in accordance with the procedures of EPA Method 9, of 40 CFR Part 60, Appendix A-4, and while the affected source is operating under normal conditions. The duration of the EPA Method 9 test shall be thirty minutes [40 CFR §63.11517(c), 40 CFR §63.11516(f)(5)(ii)].

- c. Visual determinations of fugitive emissions must be performed in accordance with 40 CFR §63.11517(a) and according to the schedule below [40 CFR §63.11517(b)].
 - i. Daily Method 22 Testing. Perform visual determination of fugitive emissions once per day, on each day the process is in operation, during operation of the process [40 CFR §63.11517(b)(1)].
 - ii. Weekly Method 22 Testing. If no visible fugitive emissions are detected in consecutive daily EPA Method 22 tests, performed in accordance with 40 CFR §63.11517(b)(1) for 10 days of work day operation of the process, the Permittee may decrease the frequency of EPA Method 22 testing to once every five days of operation of the process (one calendar week). If visible fugitive emissions are detected during these tests, the Permittee must resume EPA Method 22 testing of that operation once per day during each day that the process is in operation, in accordance with 40 CFR §63.11517(b)(1) [40 CFR §63.11517(b)(2)].
 - iii. Monthly Method 22 Testing. If no visible fugitive emissions are detected in four consecutive weekly EPA Method 22 tests performed in accordance with 40 CFR §63.11517(b)(2), the Permittee may decrease the frequency of EPA Method 22 testing to once per 21 days of operation of the process (one calendar month). If visible fugitive emissions are detected during these tests, the Permittee must resume weekly EPA Method 22 in accordance with 40 CFR §63.11517(b)(2) [40 CFR §63.11517(b)(3)].
 - iv. Quarterly Method 22 Testing. If no visible fugitive emissions are detected in three consecutive monthly EPA Method 22 tests performed in accordance with 40 CFR §63.11517(b)(3), the Permittee may decrease the frequency of EPA Method 22 testing to once per 60 days of operation of the process (3 calendar months). If visible fugitive emissions are detected during these tests, the Permittee must resume monthly EPA Method 22 in accordance with 40 CFR §63.11517(b)(3) [40 CFR §63.11517(b)(4)].
- d. If required, the Permittee must perform visual determination of emissions opacity in accordance with 40 CFR §63.11517(c) and according to the schedule below [40 CFR §63.11517(d)].
 - i. Daily Method 9 testing for welding, Tier 2 or 3. Perform visual determination of emissions opacity once per day during each day that the process is in operation [40 CFR §63.11517(d)(1)].
 - ii. Weekly Method 9 testing for welding, Tier 2 or 3. If the average of the six minute opacities recorded during any of the daily consecutive EPA Method 9 tests performed in accordance with 40 CFR §63.11517(d)(1) does not exceed 20 percent for 10 days of operation of the process, the Permittee may decrease the frequency of EPA Method 9 testing to once per five days of consecutive work day operation. If opacity greater

than 20 percent is detected during any of these tests, the Permittee must resume testing every day of operation of the process according to the requirements of 40 CFR §63.11517(d)(1) [40 CFR §63.11517(d)(2)].

- iii. Monthly Method 9 testing for welding Tier 2 or 3. If the average of the six minute opacities recorded during any of the consecutive weekly EPA Method 9 tests performed in accordance with 40 CFR §63.11517(d)(2) does not exceed 20 percent for four consecutive weekly tests, the Permittee may decrease the frequency of EPA Method 9 testing to once per every 21 days of operation of the process. If visible emissions opacity greater than 20 percent is detected during any monthly test, the Permittee must resume testing every five days of operation of the process according to the requirements of 40 CFR §63.11517(d)(2) [40 CFR §63.11517(d)(3)].
 - iv. Quarterly Method 9 testing for welding Tier 2 or 3. If the average of the six minute opacities recorded during any of the consecutive weekly EPA Method 9 tests performed in accordance with 40 CFR §63.11517(d)(3) does not exceed 20 percent for three consecutive monthly tests, the Permittee may decrease the frequency of EPA Method 9 testing to once per every 120 days of operation of the process. If visible emissions opacity greater than 20 percent is detected during any quarterly test, the Permittee must resume testing every 21 days (month) of operation of the process according to the requirements of 40 CFR §63.11517(d)(3) [40 CFR §63.11517(d)(4)].
 - v. Return to Method 22 testing for welding, Tier 2 or 3. If, after two consecutive months of testing, the average of the six minute opacities recorded during any of the monthly EPA Method 9 tests performed in accordance with 40 CFR §63.11517(d)(3) does not exceed 20 percent, the Permittee may resume EPA Method 22 testing as in 40 CFR §63.11517(b)(3) and 40 CFR §63.11517(b)(4). In lieu of this, the Permittee may elect to continue performing EPA Method 9 tests in accordance with 40 CFR §63.11517(d)(3) and 40 CFR §63.11517(d)(4) [40 CFR §63.11517(d)(5)].
32. The following emission monitoring must be performed to demonstrate continuous compliance with MACT XXXXXX.
- a. The Permittee must perform visual determinations of welding fugitive emissions as specified in 40 CFR §63.11517(b) at the primary vent, stack, exit, or opening from the building containing the welding operations [40 CFR §63.11516(f)(3)].
 - i. If visible fugitive emissions are detected during any visual determination required in 40 CFR §63.11516(f)(3), the Permittee must comply with the requirements below [40 CFR §63.11516(f)(4)].
 - 1. Perform corrective actions that include, but are not limited to, inspection of welding fume sources, and evaluation of the proper operation and effectiveness of

the management practices implemented in accordance with 40 CFR §63.11516(f)(2). After completing such corrective actions, the Permittee must perform a follow-up inspection for visible fugitive emissions in accordance with 40 CFR §63.11517(a) at the primary vent, stack, exit, or opening from the building containing the welding operations [40 CFR §63.11516(f)(4)(i)].

- b. Tier 2 requirements upon subsequent detection of visible emissions. If visible fugitive emissions are detected more than once during any consecutive 12-month period (notwithstanding the results of any follow-up inspections), the Permittee must comply with the following [40 CFR §63.11516(f)(5)]:
 - i. Within 24 hours of the end of the visual determination of fugitive emissions in which visible fugitive emissions were detected, the Permittee must conduct a visual determination of emissions opacity, as specified in 40 CFR §63.11517(c), at the primary vent, stack, exit, or opening from the building containing the welding operations [40 CFR §63.11516(f)(5)(i)].
 - ii. In lieu of the requirement of 40 CFR §63.11516(f)(3) to perform visual determinations of fugitive emissions with EPA Method 22, the Permittee must perform visual determinations of emissions opacity in accordance with 40 CFR §63.11517(d) using EPA Method 9, at the primary vent, stack, exit, or opening from the building containing the welding operations [40 CFR §63.11516(f)(5)(ii)].
 - iii. Requirements for opacities less than or equal to 20 percent but greater than zero. For each visual determination of emissions opacity performed in accordance with 40 CFR §63.11516(f)(5) for which the average of the six-minute average opacities recorded is 20 percent or less but greater than zero, the Permittee must perform corrective actions, including inspection of all welding fume sources, and evaluation of the proper operation and effectiveness of the management practices implemented in accordance with 40 CFR §63.11516(f)(2) [40 CFR §63.11516(f)(6)].
- c. Tier 3 requirements for opacities exceeding 20 percent. For each visual determination of emissions opacity performed in accordance with 40 CFR §63.11516(f)(5) for which the average of the six-minute average opacities recorded exceeds 20 percent, the Permittee must comply with the requirements below [40 CFR §63.11516(f)(7)].
 - i. Within 30 days of the opacity exceedance, the Permittee must prepare and implement a Site-Specific Welding Emissions Management Plan, as specified in 40 CFR §63.11516(f)(8). If the Permittee has already prepared a Site-Specific Welding Emissions Management Plan in accordance with 40 CFR §63.11516(f)(7)(ii), the Permittee must prepare and implement a revised Site-Specific Welding Emissions Management Plan within 30 days [40 CFR §63.11516(f)(7)(ii)].

1. Site-Specific Welding Emissions Management Plan. The Site-Specific Welding Emissions Management Plan must comply with the requirements in 40 CFR §63.11516(f)(8)(i) through 40 CFR §63.11516(f)(8)(iii) [40 CFR §63.11516(f)(8)].
 2. Site-Specific Welding Emissions Management Plan must contain the following information [40 CFR §63.11516(f)(8)(i)]:
 - a. Company name and address;
 - b. A list and description of all welding operations which currently comprise the welding affected source;
 - c. A description of all management practices in place at the time of the opacity exceedance;
 - d. A list and description of all management practices currently employed for the welding affected source;
 - e. A description of additional management practices to be implemented pursuant to 40 CFR §63.11516(f)(7)(ii), and the projected date of implementation; and
 - f. Any revisions to a Site-Specific Welding Emissions Management Plan must contain copies of all previous plan entries, pursuant to 40 CFR §63.11516(f)(8)(i)(D) and 40 CFR §63.11516(f)(8)(i)(E).
 3. The Site-Specific Welding Emissions Management Plan must be updated annually to contain current information, as required by 40 CFR §63.11516(f)(8)(i)(A) through 40 CFR §63.11516(f)(8)(i)(C) [40 CFR §63.11516(f)(8)(ii)].
 4. During the preparation (or revision) of the Site-Specific Welding Emissions Management Plan, the Permittee must continue to perform visual determinations of emissions opacity, beginning on a daily schedule as specified in 40 CFR §63.11517(d) using EPA Method 9, at the primary vent, stack, exit, or opening from the building containing the welding operations [40 CFR §63.11516(f)(7)(iii)].
33. The following recordkeeping and reporting requirements must be met to comply with MACT XXXXXX.
- a. Notification of compliance status. If the Permittee must submit a notification of compliance status within 120 days of the issuance of this permit. The notification must contain the information specified below [40 CFR §63.11519(a)(2)]:
 - i. The Permittee's company name and address [40 CFR §63.11519(a)(2)(i)];

- ii. A statement by a responsible official with that official's name, title, phone number, e-mail address and signature, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of MACT XXXXXX [40 CFR §63.11519(a)(2)(ii)]; and
 - iii. The date of the notification of compliance status [40 CFR §63.11519(a)(2)(iv)].
- b. The following reports must be submitted [40 CFR §63.11519(b)]:
- i. The Permittee must prepare and submit annual certification and compliance reports for each affected source according to the requirements of 40 CFR §63.11519(b)(2) through 40 CFR §63.11519(b)(7) [40 CFR §63.11519(b)(1), 40 CFR §63.11516(f)(7)(v), 40 CFR §63.11516(f)(8)(ii)].
 - ii. The Permittee must prepare and submit each annual certification and compliance report according to the dates specified below. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation [40 CFR §63.11519(b)(2)].
 - 1. The first annual certification and compliance report must cover the first annual reporting period which begins the day after the compliance date and ends on December 31 [40 CFR §63.11519(b)(2)(i)].
 - 2. Each subsequent annual certification and compliance report must cover the subsequent semiannual reporting period from January 1 through December 31 [40 CFR §63.11519(b)(2)(ii)].
 - 3. Each annual certification and compliance report must be prepared and submitted no later than January 31 and kept in a readily-accessible location for inspector review. If an exceedance has occurred during the year, each annual certification and compliance report must be submitted along with the exceedance reports, and postmarked or delivered no later than January 31 [40 CFR §63.11519(b)(2)(iii)].
 - iii. The annual certification and compliance report must contain the information specified below, and the information specified in 40 CFR §63.11519(b)(5) and 40 CFR §63.11519(b)(6) that is applicable to each affected source [40 CFR §63.11519(b)(4)].
 - 1. Company name and address [40 CFR §63.11519(b)(4)(i)];
 - 2. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report [40 CFR §63.11519(b)(4)(ii)]; and

3. Date of report and beginning and ending dates of the reporting period. The reporting period is the 12-month period ending on December 31. Note that the information reported for the 12 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation [40 CFR §63.11519(b)(4)(iii)].
- iv. The following reporting requirements must be met when complying with the Tier 1 compliance requirements for welding in 40 CFR §63.11516(f)(3):
 1. The annual certification and compliance report must contain the information specified below for each affected source which performs visual determination of fugitive emissions in accordance with 40 CFR §63.11517(a) [40 CFR §63.11516(f)(4)(ii), 40 CFR §63.11516(f)(5)(iv), 40 CFR §63.11516(f)(4), 40 CFR §63.11516(f)(5)].
 - a. The date of every visual determination of fugitive emissions which resulted in detection of visible emissions [40 CFR §63.11519(b)(5)(i)];
 - b. A description of the corrective actions taken subsequent to the test [40 CFR §63.11519(b)(5)(ii)]; and
 - c. The date and results of the follow-up visual determination of fugitive emissions performed after the corrective actions [40 CFR §63.11519(b)(5)(iii)].
- v. The following reporting requirements must be met when complying with the Tier 2 compliance requirements for welding in 40 CFR §63.11516(f)(5):
 1. The annual certification and compliance report must contain the information specified below for each affected source which performs visual determination of emissions opacity in accordance with 40 CFR §63.11517(c) [40 CFR §63.11516(f)(5)(iv), 40 CFR §63.11516(f)(5)].
 - a. The date of every visual determination of emissions opacity [40 CFR §63.11519(b)(6)(i)];
 - b. The average of the six-minute opacities measured by the test [40 CFR §63.11519(b)(6)(ii)]; and
 - c. A description of any corrective action taken subsequent to the test [40 CFR §63.11519(b)(6)(iii)].
- vi. The following reporting requirements must be met when complying with the Tier 3 compliance requirements for welding in 40 CFR §63.11516(f)(7):

1. As required by 40 CFR §63.11516(f)(7)(i), the Permittee must prepare an exceedance report whenever the average of the six-minute average opacities recorded during a visual determination of emissions opacity exceeds 20 percent. This report must be submitted along with the annual certification and compliance report according to the requirements in 40 CFR §63.11519(b)(1), and must contain the information in 40 CFR §63.11519(b)(8)(iii)(A) and 40 CFR §63.11519(b)(8)(iii)(B) [40 CFR §63.11519(b)(8), 40 CFR §63.11516(f)(7)(i), 40 CFR §63.11516(f)(7)(v)].
 - a. The date on which the exceedance occurred [40 CFR §63.11519(b)(8)]; and
 - b. The average of the six-minute average opacities recorded during the visual determination of emissions opacity [40 CFR §63.11519(b)(8)].
- vii. Site-specific Welding Emissions Management Plan reporting:
 1. The Permittee must submit a copy of the records of daily visual determinations of emissions recorded in accordance with 40 CFR §63.11516(f)(7)(iv), and a copy of the Site-Specific Welding Emissions Management Plan and any subsequent revisions to the plan pursuant to 40 CFR §63.11516(f)(8) along with the annual certification and compliance report, according to the requirements in 40 CFR §63.11519(b)(1) [40 CFR §63.11519(b)(9), 40 CFR §63.11516(f)(7)(iv), 40 CFR §63.11516(f)(8)(ii)].
- c. The Permittee must collect and keep records of the applicable data and information specified below according to the requirements in 40 CFR §63.11519(c)(14) [40 CFR §63.11519(c)].
 - i. The general compliance and applicability records and information specified in 40 CFR §63.11519(c)(1)(i) through 40 CFR §63.11519(c)(1)(ii) must be maintained for each affected source [40 CFR §63.11519(c)(1)].
 1. Each notification and report that the Permittee submitted to comply with MACT XXXXXX, and the documentation supporting each notification and report [40 CFR §63.11519(c)(1)(i)].
 2. Records of the applicability determinations as listed in 40 CFR §63.11514(b)(1) through 40 CFR §63.11514(b)(5) listing equipment included in its affected source, as well as any changes to that and on what date they occurred, must be maintained for 5 years and be made available for inspector review at any time [40 CFR §63.11519(c)(1)(ii)].
 - ii. The following recordkeeping requirements must be met when complying with the Tier 1 compliance requirements for welding in 40 CFR §63.11516(f)(3):

1. Visual determination of fugitive emissions records. Maintain a record of the information specified below for each affected source which performs visual determination of fugitive emissions in accordance with 40 CFR §63.11517(a) [40 CFR §63.11516(f), 40 CFR §63.11516(f)(3)].
 - a. The date and results of every visual determination of fugitive emissions [40 CFR §63.11519(c)(2)(i)];
 - b. A description of any corrective action taken subsequent to the test [40 CFR §63.11519(c)(2)(ii)]; and
 - c. The date and results of any follow-up visual determination of fugitive emissions performed after the corrective actions [40 CFR §63.11519(c)(2)(iii)].
- iii. The following recordkeeping requirements must be met when complying with the Tier 2 requirements upon subsequent detection of visible emissions in 40 CFR §63.11516(f)(5):
 1. Visual determination of emissions opacity records. Maintain a record of the information specified below for each affected source which performs visual determination of emissions opacity in accordance with 40 CFR §63.11517(c) [40 CFR §63.11516(f)(5)(iii) and 40 CFR §63.11516(f)(5)].
 - a. The date of every visual determination of emissions opacity [40 CFR §63.11519(c)(3)(i)];
 - b. The average of the six-minute opacities measured by the test [40 CFR §63.11519(c)(3)(ii)]; and
 - c. A description of any corrective action taken subsequent to the test [40 CFR §63.11519(c)(3)(iii)].
- iv. The following recordkeeping requirements must be met when complying with the Tier 3 requirements upon subsequent detection of visible emissions in 40 CFR §63.11516(f)(7):
 1. Tier 3 requirements for opacities exceeding 20 percent. For each visual determination of emissions opacity performed in accordance with 40 CFR §63.11516(f)(5) for which the average of the six-minute average opacities recorded exceeds 20 percent, the Permittee must comply with the requirements below [40 CFR §63.11516(f)(7)].

- a. The Permittee must maintain records of daily visual determinations of emissions opacity performed in accordance with 40 CFR §63.11516(f)(7)(iii), during preparation of the Site-Specific Welding Emissions Management Plan, in accordance with the requirements in 40 CFR §63.11519(b)(9) [40 CFR §63.11516(f)(7)(iv)].
- b. Visual determination of emissions opacity performed during the preparation (or revision) of the Site-Specific Welding Emissions Management Plan. The Permittee must maintain a record of each visual determination of emissions opacity performed during the preparation (or revision) of a Site-Specific Welding Emissions Management Plan, in accordance with 40 CFR §63.11516(f)(7)(iii) [40 CFR §63.11519(c)(11)].
- v. Site-Specific Welding Emissions Management Plan. If the Permittee has been required to prepare a plan in accordance with 40 CFR §63.11516(f)(7)(iii), the Permittee must maintain a copy of the current Site-Specific Welding Emissions Management Plan and it must be readily available for inspector review [40 CFR §63.11519(c)(12), 40 CFR §63.11516(f)(8)(iii)].
- vi. For all equipment meeting the requirement in 40 CFR §63.11516(f)(1) to be operated according to the manufacturer's instructions, the manufacturer's instructions must be kept on-site [40 CFR §63.11519(c)(13)].
- vii. The Permittee's records must be maintained according to the requirements below [40 CFR §63.11519(c)(15)].
 - 1. The Permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR §63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database [40 CFR §63.11519(c)(15)(i)].
 - 2. As specified in 40 CFR §63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, corrective action, report, or record [40 CFR §63.11519(c)(15)(ii)].
 - 3. The Permittee must keep each record on-site for at least 2 years after the date of each occurrence, measurement, corrective action, report, or record according to 40 CFR §63.10(b)(1). The Permittee may keep the records off-site for the remaining 3 years [40 CFR §63.11519(c)(15)(iii)].

34. Material Use Requirements:

- a. The Permittee must maintain records of each metal and coating used. Each record must include the information below:

- i. Identification and composition of each metal used.
 - ii. Indication of whether each metal meets the definition of material containing MFHAP in 40 CFR §63.11522.
 - iii. Indication of whether each coating contains compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd).
- b. The Permittee must submit the notifications listed below:
- i. If the Permittee intends to process metals containing MFHAP as defined in 40 CFR §63.11522, a permit determination request addressing the applicable requirements of MACT XXXXXX for machining affected sources must be submitted to the Department at least two months prior to the beginning the project. The permit determination request must also include the information specified in 40 CFR §63.11519(a)(1)(i) through 40 CFR §63.11519(a)(1)(iv).
 - ii. If the Permittee intends to use coatings containing MFHAP as defined in 40 CFR §63.11522, a permit determination request addressing the applicable requirements of MACT XXXXXX for spray painting affected sources must be submitted to the Department at least two months prior to the beginning the project. The permit determination request must also include the information specified in 40 CFR §63.11519(a)(1)(i) through 40 CFR §63.11519(a)(1)(iv).
 - iii. If the Permittee intends to use coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), a permit determination request addressing the applicable requirements of 40 CFR 63, Subpart HHHHHH must be submitted to the Department at least two months prior to the beginning. The permit determination request must also include the information in 40 CFR §63.11175(b).

Draft

Date

Appendix A: Equations

$$\text{Equation 1: Monthly VOC Emissions} = \text{Volume of Paint Used} \times \text{Density of Paint} \times \text{VOC Content} \times \left[\frac{\text{ton}}{2000 \text{ pounds}} \right]$$

| Value | Description | Units |
|-----------------------|--|-------------------------------------|
| Monthly VOC Emissions | Tons of VOC emitted per month | Tons per month |
| Volume of Paint Used | Gallons of paint used per month | Gallons of paint per month |
| Density of Paint | Mass per volume of paint | Pounds of paint per gallon of paint |
| VOC Content | Mass fraction of VOC making up the paint | Pounds of VOC per pound of paint |

$$\text{Equation 2: 12 – Month Rolling VOC Emissions} = \text{VOC Emissions from Current Month} + \text{VOC Emissions from Previous 11 Months}$$

| Value | Description | Units |
|---------------------------------------|--|------------------------------|
| 12-Month Rolling Emissions | VOC emissions emitted in the twelve-month period ending in the current month | Tons per 12-month period |
| VOC Emissions from Current Month | VOC emissions in current month | Tons per month |
| VOC Emissions from Previous 11 Months | Sum of VOC emissions emitted in the eleven months before the current month | Tons per eleven-month period |

$$\text{Equation 3: Monthly HAP Emissions} = \text{Op Hours} \times \text{EF} \times \left[\frac{60 \text{ min}}{\text{hour}} \right] \times \text{HAP Content} \times \left[\frac{100 - \text{CE}}{100} \right] \times \left[\frac{\text{ton}}{2000 \text{ pounds}} \right]$$

| Value | Description | Units |
|-----------------------|--|----------------------------------|
| Monthly HAP Emissions | Tons of HAP emitted per month | Tons per month |
| Op Hours | Hours that the plasma table operated per month | Hours per month |
| EF | PM emission factor for plasma cutting. 0.00088 should be used for wet plasma cutting and 0.057 should be used for dry plasma cutting | Pounds of PM per minute |
| HAP Content | Mass fraction of HAP in metal being cut | Pounds of HAP per pound of metal |
| CE | Control efficiency of control device | Percent |

$$\text{Equation 4: Monthly HAP Emissions} = \text{Op Hours} \times \left[\frac{2.1 \text{ pounds of PM}}{\text{hour}} \right] \times \text{HAP Content} \times \left[\frac{\text{ton}}{2000 \text{ pounds}} \right]$$

| Value | Description | Units |
|-----------------------|---|----------------------------------|
| Monthly HAP Emissions | Tons of HAP emitted per month | Tons per month |
| Op Hours | Hours that the cutting process operated per month | Hours per month |
| HAP Content | Mass fraction of HAP in metal being cut | Pounds of HAP per pound of metal |

$$\text{Equation 5: Monthly HAP Emissions} = \left[\frac{0.008 \text{ pounds of PM}}{\text{pounds of wire used}} \right] \times \text{HAP Content} \times \text{Wire Used} \times \left[\frac{\text{ton}}{2000 \text{ pounds}} \right]$$

| Value | Description | Units |
|-----------------------|---|----------------------------------|
| Monthly HAP Emissions | Tons of HAP emitted per month | Tons per month |
| HAP Content | Mass fraction of HAP in metal being cut | Pounds of HAP per pound of metal |
| Wire Used | Pounds of welding wire used per month | Pounds per month |

$$\text{Equation 6: Monthly HAP Emissions} = \text{Volume of Paint Used} \times \text{Density of Paint} \times \text{HAP Content} \times \left[\frac{\text{ton}}{2000 \text{ pounds}} \right]$$

| Value | Description | Units |
|-----------------------|--|-------------------------------------|
| Monthly HAP Emissions | Tons of HAP emitted per month | Tons per month |
| HAP Content | Mass fraction of HAP making up the paint | Pounds of HAP per pound of paint |
| Density of Paint | Mass per volume of paint | Pounds of paint per gallon of paint |
| Volume of Paint Used | Gallons of paint used per month | Gallons of paint per month |

$$\text{Equation 7: Monthly HAP Emissions} = \text{AU} \times \left[\frac{0.027 \text{ pounds of PM}}{\text{Pound of abrasive}} \right] \times \text{HAP Content} \times \left[\frac{\text{ton}}{2000 \text{ pounds}} \right]$$

| Value | Description | Units |
|-----------------------|---|---|
| Monthly HAP Emissions | Tons of HAP emitted per month | Tons per month |
| AU | Pounds of abrasive used per month | Pounds per month |
| HAP Content | Mass fraction of HAP making up material | Pounds of HAP per pound of blasting media |

$$\text{Equation 8: 12 - Month Rolling HAP Emissions} = \text{Current Month HAPs} + \text{Previous 11 Months HAPs}$$

| Value | Description | Units |
|----------------------------|--|------------------------------|
| 12-Month Rolling Emissions | HAP emissions emitted in the twelve-month period ending in the current month | Tons per 12-month period |
| Current Month HAPs | HAP emissions in current month | Tons per month |
| Previous 11 Months HAPs | Sum of HAP emissions emitted in the eleven months before the current month | Tons per eleven-month period |