

**PROPOSED RULE 1445 CONTROL OF TOXIC AIR CONTAMINANT EMISSIONS
FROM LASER AND PLASMA ARC METAL CUTTING**

[Rule Index to be provided after rule adoption]

(a) Purpose

The purpose of this rule is to reduce toxic air contaminant emissions from laser or plasma arc cutting equipment used for Metal Cutting.

(b) Applicability

This rule applies to the owner or operator that has been issued or is required to obtain a South Coast AQMD permit for any laser or plasma arc cutting equipment.

(c) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) ABOVE GRADE LEVEL means any Metal Cutting activity conducted 15 feet or more above the grade.
- (2) AIR POLLUTION CONTROL DEVICE means equipment installed for the purpose of collecting and containing emissions from Metal Cutting.
- (3) APPROVED CLEANING METHOD means cleaning using a wet mop, damp cloth, wet wash, low pressure spray nozzle, HEPA Vacuum, or a combination of the above methods that minimizes Fugitive Dust emissions.
- (4) BUILDING means a type of enclosure that is a permanent structure, with a floor, walls surrounding the Unit, and a roof to prevent exposure to the elements (e.g., precipitation, wind, run-off).
- (5) CAPTURE VELOCITY means the minimum hood induced air velocity necessary to capture and convey air contaminants into an Air Pollution Control Device.
- (6) EXISTING means any Unit or Air Pollution Control Device with an initial Permit Date before *[date of rule adoption]*.
- (7) FACILITY means any source or group of sources or other air contaminant-emitting activities that are located on one or more contiguous properties within the South Coast AQMD, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or by persons under common control), or an outer continental shelf (OCS) source as determined in 40 CFR Section 55.2. Such above-described groups, if noncontiguous, but connected only by land carrying a pipeline, shall not be considered one facility. Sources or installations involved in crude oil and gas

production in Southern California Coastal or OCS Waters and transport of such crude oil and gas in Southern California Coastal or OCS Waters shall be included in the same facility that is under the same ownership or use entitlement as the crude oil and gas production facility on-shore.

- (8) FILTER-BASED means use of filter media in an Air Pollution Control Device to collect and contain particulate from an airstream.
- (9) FIXED means any Unit that is installed in a Building, structure or facility and is attached to a foundation.
- (10) FUGITIVE DUST means any particulate matter that has the potential to become airborne.
- (11) FULLY SUBMERGED means when Metal Cutting is conducted on a Water Table where the metal and entire arc are completely under water and includes the term completely submerged.
- (12) GRADE LEVEL means any Metal Cutting activity not considered Above Grade Level.
- (13) HEPA VACUUM means a vacuum that is both designed to be fitted and used with a HEPA Filter.
- (14) HIGH EFFICIENCY PARTICULATE AIR (HEPA) FILTER means filter(s) that are individually tested and certified by the manufacturer to have a control efficiency of not less than 99.97 percent on 0.3 micron particles.
- (15) METAL CUTTING means use of a Unit to cut metal.
- (16) NEW means any Unit or Air Pollution Control Device with a Permit Date on or after *[date of rule adoption]*.
- (17) NICKEL ALLOY means a steel alloy with 10.5 percent or greater nickel content by mass as determined by the precise value or the lower range on an applicable Safety Data Sheet (SDS), mill certification, or certified testing.
- (18) PERMANENT TOTAL ENCLOSURE means a permanent building or containment structure, enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-off) that has limited openings to allow access for people and vehicles, that is free of breaks or deterioration that could cause or result in fugitive emissions, and has been evaluated to meet the design requirements set forth in U.S. EPA Method 204.
- (19) PERMIT DATE means the earliest date that a Permit to Construct or a Permit to Operate was issued.
- (20) PORTABLE means a Unit that can be moved to cut metal within a facility, such as an intra-facility Unit or is listed as handheld or portable in the equipment

description section, or as various locations in the equipment location section of a South Coast AQMD Permit to Construct or Permit to Operate.

- (21) SCHOOL means any public or private school, including juvenile detention facilities with classrooms, used for the education of more than 12 children at the school in kindergarten through grade 12. A School also includes an Early Learning and Developmental Program by the U.S. Department of Education or any state or local early learning and development programs such as preschools, Early Head Start, Head Start, First Five, and Child Development Centers. A School does not include any private school in which education is primarily conducted in private homes. The term School includes any building or structure, playground, athletic field, or other area of School property.
 - (22) SENSITIVE RECEPTOR means any residence including private homes, condominiums, apartments, and living quarters. A Sensitive Receptor also includes Schools, daycare centers, health care facilities such as hospitals or retirement and nursing homes, long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.
 - (23) STAINLESS STEEL means a steel alloy with 10.5 percent or greater chromium content by mass as determined by the precise value or the lower range on an applicable Safety Data Sheet (SDS), mill certification, or certified testing.
 - (24) TEMPORARY ENCLOSURE means a structure with walls surrounding the Unit and a roof to prevent exposure to the elements (e.g., precipitation and wind).
 - (25) UNIT means a laser or plasma arc cutting device used to cut metal that employs a focused, high-powered laser beam or uses a high temperature and high velocity jet of plasma for which an owner or operator has been issued or is required to obtain a South Coast AQMD permit.
 - (26) UNKNOWN METAL means a metal or a metal alloy for which the composition cannot be determined by a Safety Data Sheet, mill certification, or certified testing.
 - (27) WATER TABLE means a device used to control dust and fumes from Metal Cutting that is comprised of a tank of water where slats are used to support metal during the cutting process.
- (d) Control Device Requirements
- (1) An owner or operator of a Unit shall collect and vent emissions from any New Portable and/or Fixed Unit to an Air Pollution Control Device with HEPA Filters or filters individually tested and certified by the manufacturer to have a control efficiency of at least 99.97 percent on 0.3 micron or smaller particles.

- (2) An owner or operator of an Existing Portable and/or Fixed Unit shall:
 - (A) Collect and vent emissions to an Air Pollution Control Device that meets the applicable minimum Air Pollution Control Device efficiency requirement and effective date included in Table 1 – Requirement and Compliance Schedule for Existing Portable Unit(s) and/or Table 2 – Requirement and Compliance Schedule for Existing Fixed Unit(s); and
 - (B) For any Existing Unit that is not equipped with an Air Pollution Control Device that meets the applicable minimum Air Pollution Control Device efficiency requirements, submit a complete permit application by the permit application due date included in Table 1 – Requirement and Compliance Schedule for Existing Portable Unit(s) and/or Table 2 – Requirement and Compliance Schedule for Existing Fixed Units(s).
- (3) An owner or operator of a Unit used to exclusively cut Non-Stainless or Non-Nickel Alloy shall operate the Unit with an Air Pollution Control Device that meets the minimum Air Pollution Control Device efficiency requirements included in Table 1 – Requirement and Compliance Schedule for Existing Portable Unit(s) and/or Table 2 – Requirement and Compliance Schedule for Existing Fixed Unit(s) as demonstrated by either performing a source test that is reviewed and approved by the Executive Officer, or manufacturers’ specifications of guaranteed particulate removal efficiency.
- (4) An owner or operator of a Unit used to cut Stainless, Nickel Alloy, or an Unknown Metal shall operate the Unit with an Air Pollution Control Device that meets the minimum Air Pollution Control Device efficiency requirements included in Table 1 – Requirement and Compliance Schedule for Existing Portable Unit(s) and/or Table 2 – Requirement and Compliance Schedule for Existing Fixed Unit(s) as demonstrated by a manufacturers’ specifications for individually tested and certified filters.

Table 1 – Requirement and Compliance Schedule for Existing Portable Unit(s)			
Metal Cut	Minimum Air Pollution Control Device Efficiency Requirement	Effective Date	Permit Application Due Date
Non-Stainless Steel or Non-Nickel Alloy	99% or greater by weight; or 99% or greater on 0.3 micron particles	January 1, 2028	January 1, 2026
Stainless Steel, Nickel Alloy or Unknown Metal	HEPA or better final filtration	January 1, 2027	January 1, 2025

Table 2 – Requirement and Compliance Schedule for Existing Fixed Unit(s)				
Metal Cut	Equipment Type as of [date of rule adoption]	Minimum Air Pollution Control Device Efficiency Requirement	Effective Date	Permit Application Due Date
Non-Stainless Steel or Non-Nickel Alloy	Water Tables conducting Fully Submerged cutting	99% or greater, by weight; or 99% or greater on 0.3 micron particles	January 1, 2039	January 1, 2037
	Others (e.g., dry cutting, no APCD)		January 1, 2029	January 1, 2027
Stainless Steel, Nickel Alloy, or Unknown Metal	Operating with APCD below 99% or no APCD	HEPA or better final filtration	January 1, 2029	January 1, 2027
	Operating with APCD with control efficiency at or above 99% and below 99.97%		January 1, 2039	January 1, 2037

(e) Performance Specifications for Unit(s) Vented to a Filter-Based Air Pollution Control Device

An owner or operator of a Unit shall demonstrate compliance with the following performance specifications by conducting tests pursuant to subdivision (f).

- (1) Capture efficiency of 100%; and
- (2) Capture Velocity measured at the cutting plane of at least 200 feet per minute, on average.

(f) Testing Requirements

- (1) An owner or operator of a Unit shall demonstrate compliance with paragraph (e)(1) by conducting an acceptable smoke test for each Unit using the procedure set forth in Appendix 1 – Smoke Test Procedures and in accordance with the compliance schedule in Table 3 – Parametric Monitoring Compliance Schedule.
- (2) An owner or operator of a Unit shall demonstrate compliance with paragraph (e)(2) by conducting Capture Velocity measurements pursuant to Appendix 2 – Capture Velocity Measurement Procedures and in accordance with the compliance schedule in Table 3 – Parametric Monitoring Compliance Schedule.
- (3) An owner or operator of a New Air Pollution Control Device shall electronically notify the Executive Officer, using a format approved by the Executive Officer within ten calendar days of initial operation of the Air Pollution Control Device.
- (4) An owner or operator of a Unit that does not demonstrate that the Unit meets the capture efficiency requirements in paragraph (e)(1) and/or the Capture Velocity requirements of paragraph (e)(2) shall:
 - (A) Not operate the Unit until a subsequent smoke test and/or subsequent Capture Velocity measurements demonstrate compliance with paragraphs (e)(1) and/or (e)(2), respectively;
 - (B) Notify the Executive Officer by calling 1-800-CUT-SMOG within 24 hours of when the owner or operator knew or reasonably should have known of the Unit’s failed demonstration; and
 - (C) Perform necessary actions or repairs to meet the requirements of paragraphs (e)(1) and/or (e)(2).

Table 3 – Parametric Monitoring Compliance Schedule				
Requirement	Existing Air Pollution Control Device		New Air Pollution Control Device	
	Initial Test	Subsequent Test Frequency	Initial Test	Subsequent Test Frequency
Smoke Test (f)(1)	On or before January 1, 2025	At least once every 6 months after the prior test	Within 90 days after commencement of initial operation as allowed under South Coast AQMD rules	At least once every 6 months after the prior test
Capture Velocity (f)(2)	On or before January 1, 2027	At least once every 12 months after the prior test	Within 90 days after commencement of initial operation as allowed under South Coast AQMD rules	At least once every 12 months after the prior test

(g) Pressure Drop Requirements for Unit(s) Vented to a Filter-Based Air Pollution Control Device

- (1) Beginning January 1, 2025, for an Existing Air Pollution Control Device; and beginning with the date of commencement of initial operation for each New Air Pollution Control Device, an owner or operator of a Unit shall:
 - (A) Install and operate a pressure gauge to indicate and continuously monitor, in inches of water column, the pressure drop across each filter stage of the Air Pollution Control Device; and
 - (B) Ensure that the gauge:
 - (i) Is operated and maintained in accordance with manufacturer’s specifications;
 - (ii) Is positioned so that it is easily readable and in clear sight; and
 - (C) Maintain the pressure drop across each filter stage of the Air Pollution Control Device at or below the maximum pressure drop and at or above the minimum pressure drop specified in a South Coast AQMD Permit or the manufacturer’s recommended maximum pressure drop and minimum

pressure drop if not specified by Permit to Construct or a Permit to Operate conditions.

- (2) An owner or operator of a New Air Pollution Control Device shall electronically notify the Executive Officer, using a format approved by the Executive Officer within ten calendar days of initial operation of the Air Pollution Control Device.
- (3) An owner or operator of a Unit shall record the pressure drop as measured by the gauge required in subparagraph (g)(1)(A) at least once each calendar day when Metal Cutting is conducted.

(h) **Building Requirements**

- (1) Beginning January 1, 2025, an owner or operator of a Fixed Unit shall operate each Fixed Unit within a Building.
- (2) Beginning January 1, 2026, except during the movement of vehicles, equipment, or people for ingress and egress to the Building, an owner or operator of a Unit located within a Building shall during Metal Cutting close any Building openings to the exterior within 20 feet of a Unit to prevent the passage of air through use of one or more of the following:
 - (A) A door that closes;
 - (B) Overlapping floor-to-ceiling plastic strip curtain; or
 - (C) A vestibule.
- (3) Beginning January 1, 2026, if the Building contains openings to the exterior that are on opposite ends of the Building where air can pass through any area where Metal Cutting occurs, an owner or operator of a Metal Cutting Facility shall close openings on at least one end for each pair of opposing ends of a Building during Metal Cutting within the Building, except during the passage of vehicles, equipment, or people for ingress or egress to the Building through use of one or more of the methods in subparagraphs (h)(2)(A) through (h)(2)(C).
- (4) Beginning January 1, 2026, except during the movement of vehicles, equipment, or people for ingress and egress to the Building, an owner or operator of a Fixed Unit shall close any Building opening through use of one or more of the methods listed in subparagraphs (h)(2)(A) through (h)(2)(C) for the opening that faces the nearest:
 - (A) Sensitive Receptor, other than the nearest School, that is located within 1,000 feet, as measured from the property line of the Sensitive Receptor to the Building opening; and

- (B) School that is located within 1,000 feet, as measured from the property line of the School to the Building opening.
- (5) Beginning with the effective dates established by Table 1 – Requirement and Compliance Schedule for Existing Portable Unit(s), an owner or operator of a Portable Unit that operates outside of a Building shall meet the following requirements:
 - (A) For Grade Level operations, conduct Metal Cutting within a Temporary Enclosure with access openings closed during Metal Cutting; and/or
 - (B) For Above Grade Level operations, either conduct Metal Cutting within a Temporary Enclosure with access openings closed during Metal Cutting or conduct an acceptable smoke test pursuant to the procedure set forth in Appendix 1 – Smoke Test Procedures prior to and on the same day of operation.
- (i) Housekeeping
 - (1) Beginning January 1, 2025, the owner or operator of a Metal Cutting Facility shall clean the following areas using Approved Cleaning Methods:
 - (A) Floors within 20 feet of any Unit on each calendar day when Metal Cutting operations are conducted;
 - (B) Floors within 20 feet of an Air Pollution Control Device:
 - (i) On a weekly basis for Fixed Metal Cutting operations; and
 - (ii) For each calendar day when Portable Metal Cutting operations are conducted.
 - (2) Store and dispose materials generated from paragraph (i)(1) housekeeping requirements in closed containers that prevent the release of Fugitive Dust.
- (j) Best Management Practices
 - Beginning January 1, 2025, the owner or operator of a Metal Cutting Facility with any Unit vented to a Filter-Based Air Pollution Control Device shall:
 - (1) Perform a weekly physical visual inspection of the filter media for leaks, breaks, tears, and improper seating.
 - (2) Comply with the manufacturers’ recommended schedule for inspecting and maintaining any Air Pollution Control Device for the Unit. If the inspection frequency is not specified by the manufacturer, inspection and maintenance activities shall be conducted at least once per calendar quarter.
 - (3) Ensure that air flow is not obstructed between the Unit and any Air Pollution Control Device.

- (4) Enclose all filter media of an Air Pollution Control Device in leak proof containers at all times except for unused filter media.

- (k) Recordkeeping Requirements
 - (1) The owner or operator of a Metal Cutting Facility shall:
 - (A) Maintain records demonstrating compliance with Air Pollution Control Device efficiency requirements of subdivision (d), including filter technical specification sheets and the dates when filters are replaced for all filter stages installed in a Filter-Based Air Pollution Control Device subject to this rule.
 - (B) Maintain records demonstrating compliance with testing requirements of subdivision (f) and subparagraph (h)(5)(B) including:
 - (i) Name of the person(s) conducting the measurement or demonstration;
 - (ii) Identification of each Air Pollution Control Device, including the permit number or device identification number;
 - (iii) Date and time the demonstrations were conducted;
 - (iv) Description of the equipment used to conduct the measurement or demonstration;
 - (v) Calibration records for the equipment used to conduct the measurement or demonstration;
 - (vi) Results of the measurement or demonstration conducted for each Air Pollution Control Device; and
 - (vii) Description of any maintenance and repair activities conducted for each Air Pollution Control Device.
 - (C) Maintain records demonstrating compliance with notification requirements for initial operation of New Air Pollution Control Devices as required in paragraphs (f)(3) and/or (g)(2).
 - (D) Maintain records of Air Pollution Control Device pressure drop readings as required in paragraph (g)(3).
 - (E) Maintain records demonstrating compliance with housekeeping requirements specified in subdivision (i).
 - (F) Maintain records of the visual inspections conducted to comply with the requirements of subdivision (j), including:
 - (i) Name of the person(s) performing the visual inspection for each Air Pollution Control Device;

- (ii) Identification of each Air Pollution Control Device, including the permit number or the device identification number listed on a South Coast AQMD permit;
 - (iii) Date and time of the physical visual inspection;
 - (iv) Documentation of filter media found to have any leaks, breaks, or tears, or found to be improperly installed; and
 - (v) Description of any maintenance and repair activities conducted for any Air Pollution Control Device.
 - (2) The owner or operator shall maintain all records required in this subdivision for at least five years and the records shall be made available to South Coast AQMD personnel upon request with at least the two most recent years kept onsite.
- (1) Exemptions
 - (1) The provisions of subdivisions (d), (e), (f), (g), (h), (i) and (j) shall not apply to a Metal Cutting Facility provided:
 - (A) All Units include permit conditions that prohibit the cutting of any metal that contains a toxic air contaminant identified in Table 1 of Rule 1401 – New Source Review of Toxic Air Contaminants with an effective date of September 1, 2017, or later; and
 - (B) The owner or operator maintains records, including manufacturer-supplied Safety Data Sheet to document that metals cut does not contain a toxic air contaminant as specified in subparagraph (1)(1)(A).
 - (2) The provisions of subdivisions (d), (e), (f) and (g) shall not apply to any New Units provided:
 - (A) The Units include permit conditions that prohibit the cutting of any metal that contains a toxic air contaminant identified in Table 1 of Rule 1401 – New Source Review of Toxic Air Contaminants effective at the time the permit application is deemed complete; and
 - (B) The owner or operator maintains records, including manufacturer-supplied Safety Data Sheet to document that metals cut does not contain a toxic air contaminant as specified in subparagraph (1)(2)(A).
 - (3) The provisions of paragraphs (h)(2), (h)(3), and (h)(4) shall not apply to a Metal Cutting Facility provided all Units are within a Permanent Total Enclosure(s) vented to Air Pollution Control Device(s) that meet the provisions of subdivision (d). For the purposes of this rule, strip curtains are not acceptable for use as a Permanent Total Enclosure.

Appendix 1 – Smoke Test Procedures

1. Applicability and Principle

- 1.1 Applicability. This method applies to an owner or operator of a Portable or Fixed Unit that is required to conduct a smoke test pursuant to subdivisions (e) and (f) or subparagraph (h)(5)(B).
- 1.2 Principle. A smoke device placed within the area where collection of emissions by the ventilation system occurs reveals if 100% capture efficiency is achieved.

2. Apparatus

- 2.1 Smoke Generator. The smoke generator shall be adequate to produce a persistent stream of visible smoke (e.g., Smoke Sticks). The smoke generating device shall not provide excessive momentum to the smoke stream that may create a bias in the determination of capture efficiency. If the device provides slight momentum to the smoke stream, it shall be released perpendicular to the direction of the capture velocity. The smoke generator must be at full generation during the entire test and operated according to manufacturer’s suggested use.

3. Testing Conditions

- 3.1 Equipment Operation. Any equipment to be smoke tested that can generate heat as part of normal operation must be smoke tested under normal operating conditions. Operating parameters of the equipment during the smoke test shall be recorded. The smoke test shall be conducted while the Air Pollution Control Device is in normal operation. The position of any adjustable dampers that can affect air flow shall be documented. Precautions should be taken by the facility to evaluate any potential physical hazards to ensure the smoke test is conducted in a safe manner.
- 3.2 Cross Draft. The smoke test shall be conducted while the Air Pollution Control Device is in normal operation and under typical draft conditions representative of the facility’s Metal Cutting operations. This includes cooling fans and openings affecting draft conditions around the Metal Cutting area including, but not limited to, vents, windows, doorways, bay doors, and roll-ups, as well as the operation of other workstations and traffic.

4. Procedure

- 4.1 Collection Slots. For cutting equipment equipped with collection slots or hoods, the smoke shall be released at points where metal cutting emissions are generated (i.e., the point where cutting occurs). Observe the collection of the smoke to the collection location(s) of the ventilation system. Smoke shall be released at points not to exceed 12 inches apart across ventilated work areas. Record these

observations at each of the points providing a qualitative assessment of the collection of smoke to the ventilation system.

- 4.2 **Equipment Enclosures.** Equipment enclosures include equipment where emissions are generated inside the equipment, and the equipment is intended to have inward air flow through openings to prevent the escape of process emissions. The smoke shall be released at points outside of the plane of the opening of the equipment, over an evenly spaced matrix across all openings with points not to exceed 12 inches apart. Observe the inward movement of the smoke to the collection location(s) of the ventilation system. Record these observations at each of the points providing a qualitative assessment of the collection of smoke to the ventilation system.
 - 4.3 **Portable Emission Air Pollution Control Devices.** For Portable Air Pollution Control Devices associated to Portable plasma arc cutting equipment, the smoke test shall be conducted at the location the unit is most frequently used for metal cutting. For portable units where metal cutting is conducted predominantly outside of a building, the smoke test shall be conducted within a temporary enclosure pursuant to paragraph (h)(5). The smoke shall be released at points where Metal Cutting emissions are generated and not exceed the identified maximum distance metal cutting can occur from the Air Pollution Control Device if the maximum distance is included in permit conditions. Observe the collection of the smoke to the collection hood of the ventilation system. Record these observations at each of the points providing a qualitative assessment of the collection of smoke to the ventilation system.
5. **Demonstration of an Acceptable Smoke Test**
 - 5.1 An acceptable smoke test shall demonstrate a direct stream to the collection location(s) of the ventilation system without meanderings out of this direct path.
 6. **Documentation**
 - 6.1 The smoke test shall be documented by photographs or video at each point that clearly show the path of the smoke. Documentation shall also include a list of equipment tested and any repairs that were performed in order to pass the smoke test. As previously discussed, the documentation shall include the position of adjustable dampers, cross draft conditions, and the heat input of the equipment, if applicable. The documentation shall be signed and dated by the person performing the test. The records shall be maintained for at least five years and the records shall be made available to the South Coast AQMD personnel upon request with at least the two most recent years kept onsite.

Appendix 2 – Capture Velocity Measurement Procedures

1. Applicability

1.1 Applicability. This method applies to an owner or operator of Portable or Fixed Unit that is required to measure air velocity at the cutting plane to demonstrate that air pollution control device meets the Capture Velocity requirements in subdivisions (e) and (f).

2. Apparatus

2.1 Anemometer. The anemometer shall be capable of measuring the inward face air velocity in feet per minute (fpm) within an appropriate velocity range with an accuracy within +/- 10% of full scale. The anemometer shall be operated and calibrated per the manufacturer’s recommendations.

3. Testing Conditions

3.1 Equipment Operation. The test shall be conducted while the Air Pollution Control Device is in normal operation and under typical conditions representative of the facility’s laser or plasma arc cutting operation. Precautions should be taken by the facility to evaluate any potential physical hazards to ensure the Capture Velocity air measurement test is conducted in a safe manner.

3.2 Cross Draft. The test shall be conducted under typical draft conditions representative of the facility’s metal cutting operations. This includes cooling fans and openings affecting draft conditions around the Metal Cutting area including, but not limited to, vents, windows, doorways, bay doors, and roll-ups, as well as the operation of other work stations and traffic.

4. Procedure

4.1 The air velocity measurements shall be conducted at the cutting plane (i.e., the point where cutting occurs) of the laser or plasma arc cutting equipment over a five-point grid pattern (see below).



For zoned down draft tables, one set of grid pattern measurements will be required for each zone. For dust collection systems that use a capture hood, one set of grid measurements within the dimensions of the capture hood is acceptable. For portable air pollution control devices associated to portable plasma arc cutting

equipment, air velocity measurements shall be conducted at the location the unit is most frequently used for metal cutting. For portable units where metal cutting is conducted primarily outside of a building, air velocity measurements shall be conducted within a temporary enclosure pursuant to paragraph (h)(5). For a capture hood one (1) square foot or less in diameter, the single center point may be used in lieu of the five-point grid.

4.2 The measurement with the anemometer shall be performed where a steady reading is obtained and recorded at each measurement point.

5. Documentation

5.1 The following information shall be recorded for each measurement.

Air Pollution Control Device permit number:

Anemometer Make Model:

Anemometer Calibration Factor:

Anemometer Calibration Date:

Air Velocity Measurements:

Upper Left:_____ fpm

Upper Right:_____ fpm

Center:_____ fpm

Lower Left:_____ fpm

Lower Right:_____ fpm

Measurement conducted by:

Measurement date: