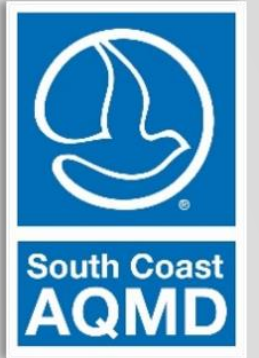


Working Group Meeting #5

May 1, 2024

9:00 AM



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

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AGENDA



WORKING GROUP MEETING #4 RECAP



- Responded to comments made in WGM #3
- Presented an overview of rule concepts:
 - Purpose
 - Applicability
 - Control Devices
 - Housekeeping
 - Best Management Practices
 - Parametric Monitoring
 - Recordkeeping



STAKEHOLDER COMMENTS (WORKING GROUP MEETING #4)



Comment #1

- Determining capture (collection) efficiency for an air pollution control device is a difficult process, especially for portable equipment.

Comment #2

- Temporary portable enclosures (TPEs) are difficult when space is limited.

Comment #3

- Infrequent, small cutting projects should not be subject to controls.

Comment #4

- How would 99% control efficiency be demonstrated?

RESPONSE TO COMMENT #1 – DETERMINING CAPTURE (COLLECTION) EFFICIENCY FOR AN AIR POLLUTION CONTROL DEVICE IS A DIFFICULT PROCESS, ESPECIALLY FOR PORTABLE EQUIPMENT.

Rule Concepts Under Consideration

- Capture efficiency is critical to ensure the overall control efficiency of an Air Pollution Control Device
- PR 1445 will include parametric monitoring requirements and identify procedures for conducting tests
 - Smoke tests
 - Capture velocity measurements at the cutting plane

Procedures for Parametric Monitoring Tests

- Based on methodologies included in other toxic metal particulate rules
- Procedures account for operational characteristics

Stationary vs Portable

- Procedures consider zoned down draft tables and capture hoods used by portable APCDs

Indoor vs Outdoor

- Tests for portable Units are conducted where Unit is predominantly used
- If portable Units are primarily used outdoors, measurements to be conducted within a temporary enclosure at grade level

RESPONSE TO COMMENT #2 – TEMPORARY PORTABLE ENCLOSURES (TPES) ARE DIFFICULT WHEN SPACE IS LIMITED.

- The use of temporary portable enclosures is intended to maintain adequate capture efficiency
- PR 1445 would require portable units conducting metal cutting operations outdoors at grade level to use TPES during metal cutting
- In response to stakeholder comments, an alternative compliance pathway proposed for instances where requirements may be operationally infeasible, such as above grade outdoor operations
 - see paragraph (h)(5) of initial rule language
- Continuing to review stakeholder feasibility comments

RESPONSE TO COMMENT #3 – INFREQUENT, SMALL CUTTING PROJECTS SHOULD NOT BE SUBJECT TO CONTROLS.

- PR 1445 requirements are applicable to permitted laser and plasma arc cutting equipment
- Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II excludes certain laser and plasma arc metal cutting equipment from being required to obtain a permit
- PR 1445 - partial exemption under consideration for Units used exclusively for maintenance and repair activities based on operating hours or other parameters
 - Recordkeeping; and/or
 - Permit conditions

RESPONSE TO COMMENT #4 - HOW WOULD 99% CONTROL EFFICIENCY BE DEMONSTRATED?

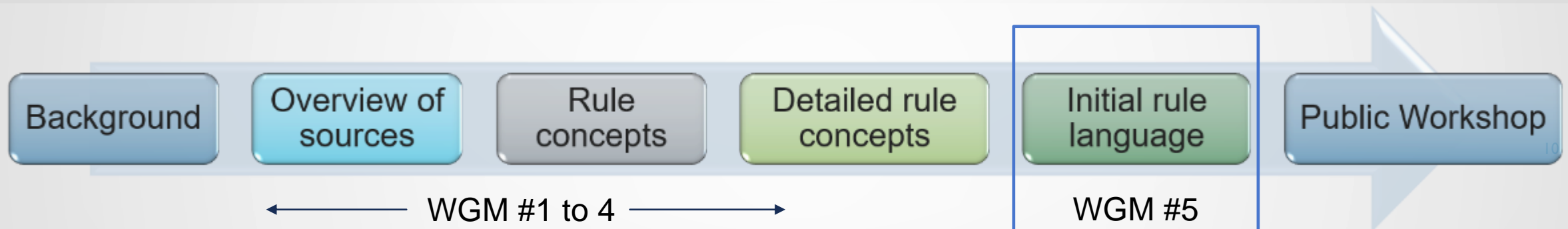
- Control device requirements for existing Units establish a 99% minimum control efficiency for Units cutting non-stainless steel and non-nickel alloy
- PR 1445 includes two compliance options to demonstrate control efficiency
 - Air Pollution Control Device source tests
 - Manufacturers' specifications of guaranteed particulate removal efficiency
- Additional information on proposed Air Pollution Control Device documentation requirements is provided in slide 22 of the presentation



INITIAL RULE LANGUAGE

PROCESS

- Initial rule language is a first draft and builds on concepts discussed in prior working group meetings
- The text incorporates comments received from both external and internal stakeholders
- This WGM will go over the initial rule language and seek public input
- Intent is to incorporate comments received into Preliminary Draft Rule Language that will be presented at a Public Workshop





PR 1445 STRUCTURE

- a) Purpose
- b) Applicability
- c) Definitions
- d) Control Device Requirements
- e) Performance Specifications
- f) Testing Requirements
- g) Pressure Drop Requirements
- h) Building Requirements

- i) Housekeeping
- j) Best Management Practices
- k) Recordkeeping
- l) Exemptions

Appendix 1 - Smoke Test Procedures

Appendix 2 - Air Velocity Measurement Procedures

Purpose/Applicability

(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.

- Purpose is to reduce toxic air contaminant emissions from laser and plasma arc equipment used to cut metal
- Applicability includes any owner or operator that is required to obtain a permit for their Metal Cutting Unit
 - Includes any owner or operator that has been issued a permit

Key Definitions – (c)

- (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.
- (6) EXISTING means any Unit or Air Pollution Control Device with an initial Permit Date before [*date of rule adoption*].
- (16) NEW means any Unit or Air Pollution Control Device with a Permit Date on or after [*date of rule adoption*].
- (19) PERMIT DATE means the earliest date that a Permit to Construct or a Permit to Operate was issued.

PR 1445 includes requirements for existing and new Units

- Unit is an umbrella term for permitted laser and plasma arc cutting equipment
- Existing distinguishes between Units that have had their initial permit issued before the date of rule adoption
- New distinguishes between Units that have had a permit issued after date of rule adoption
- Permit Date used to determine if Unit is New or Existing based on issuance date

Key Definitions (*continued*)

(9) **FIXED** means any Unit that is installed in a Building, structure or facility and is attached to a foundation.

(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.

PR 1445 includes requirements for different types of cutting equipment

- Fixed describes Units that are used in one location within a facility
- Portable describes a plasma arc cutting Unit that can be carried, moved, and used at different locations within a facility
 - These Units can also be used for outdoor operations

Key Definitions (*concluded*)

(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.

(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.

(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.

- HEPA Filter describes the criteria a filter must meet to be considered a HEPA filter
- Nickel Alloy categorizes alloys with high nickel content by mass
- Stainless Steel categorizes steel alloys with high chromium content by mass

d) Control Device Requirements



New Units – (d)(1)

(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.

Control Device Requirements for New Units

- Further reductions in toxic air contaminant emissions are possible based on standardized HEPA or better air pollution control device filtration for new Units

Existing Units – (d)(2)

- (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).

Control Device Requirements for Existing Units

- Focus is to specify air pollution control device control efficiency requirements based on types of metal cut
- 99% control efficiency if cutting non-stainless steel or non-nickel alloy
- HEPA or better final filtration if cutting stainless steel, nickel alloy or unknown metal

Compliance Schedule – Existing Portable Units (Table 1)

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

Portable Units

- Install or retrofit control system to achieve:
 - 99% control efficiency if cutting non-stainless steel or non-nickel alloy
 - HEPA or better final filtration if cutting stainless steel, nickel alloy or unknown metal
- If necessary to upgrade equipment, permit applications are due two years before the effective date

Compliance Schedule Existing Fixed Units (Table 2)

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

Fixed Units (Non-Stainless Steel and Non-Nickel)

- Intent is for PR 1445 to be technologically neutral and allow for different compliance pathways to demonstrate 99% control efficiency
- Accelerated implementation timeline for systems with lower control efficiency or no Air Pollution Control Device
- Water Tables exclusively conducting fully submerged cutting are allowed more time to comply

Compliance Schedule Existing Fixed Units (Table 2 Continued)

Fixed Units (Stainless Steel, Nickel Alloy or Unknown Metal)

Install or retrofit Air Pollution Control Device system to achieve

- HEPA or better final filtration
- Accelerated compliance schedule for existing systems with lower control efficiency

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
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

Demonstration of Control Device Efficiency (d)(3) and (d)(4)

(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.

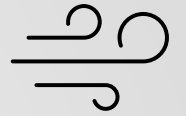
Non-Stainless/Non-Nickel Alloys

- 1) Source test reviewed and approved by Executive Officer
- 2) Manufacturer specifications of guaranteed particulate removal efficiency

Stainless Steel, Nickel Alloy, Unknown Metals

- HEPA or better filtration based on individually tested and certified filters

e) Performance Specifications for
Unit(s) Vented to a Filter-Based
APCD



Performance Specifications for Unit(s) Vented to a Filter-Based APCD - (e)

(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.

Performance specifications included as an alternative to ongoing source tests to ensure continued adequate Air Pollution Control Device collection efficiency

Performance Specification requirements

- Capture efficiency
 - Procedures for demonstrating capture efficiency are included in Appendix 1
- Capture Velocity
 - Procedures for conducting air velocity measurements at the cutting plane are provided in Appendix 2

f) Testing Requirements



Testing Requirements for Performance Specifications – (f)(1) and (f)(2)

(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.

Capture efficiency

- Conducted in accordance with Appendix 1 – Smoke Test Procedures

Capture Velocity

- Air velocity measurements as specified in Appendix 2 – Capture Velocity Measurement Procedures

Table 3 establishes testing compliance schedule

- After initial test, intent is to require ongoing demonstration tests

Table 3 – Parametric Monitoring Compliance Schedule

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

Testing Requirements – Notifications (f)(3)

- (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.

Notifications are necessary to establish the compliance timeline for new Units

- Electronically notify the Executive Officer within 10 days of the commencement of initial operation of a Unit under permit

Testing Requirements - Failed Demonstrations (f)(4)

- (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).

Procedures for a facility to follow if any of the testing requirements are not met for a Unit

- Stop operating the Unit
- Notify the Executive Officer
- Take actions or repairs to meet performance specifications - subdivision (e)
- Resume operations after successful demonstration of performance specifications

(g) Pressure Drop Requirements
for Units Vented to a Filter-
Based APCD



Pressure Drop Requirements for Units Vented to a Filter-Based APCD – (g)(1)

- (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.

Monitoring pressure drop is another system performance indicator and is included in many permit conditions

Beginning January 1, 2025 (*initial operation date for new Units*) PR 1445 includes standardized requirements for all facilities

- Require a gauge to measure drop
- In operation, maintain the pressure drop
 - According to permit conditions, or
 - As specified by manufacturer if not identified in permit conditions

Pressure Drop Requirements – Notifications (g)(2) and Documentation (g)(3)

(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.

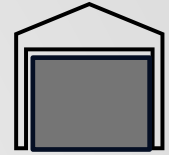
Notifications are necessary to establish the compliance timeline for new Units

- Electronically notify the Executive Officer within 10 days of the commencement of initial operation of a Unit under permit

Requirements to monitor pressure drop

- Record pressure drop each day when metal cutting is conducted

h) Building Requirements



Building Requirements – (h)(1) and (h)(2)

(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.

Intent is to minimize the release of fugitive emissions and reduce cross draft that can affect Air Pollution Control Device collection efficiency

- Initial requirement to operate Fixed equipment within a Building
- After January 1, 2026, options are provided for closing openings near Fixed equipment during metal cutting

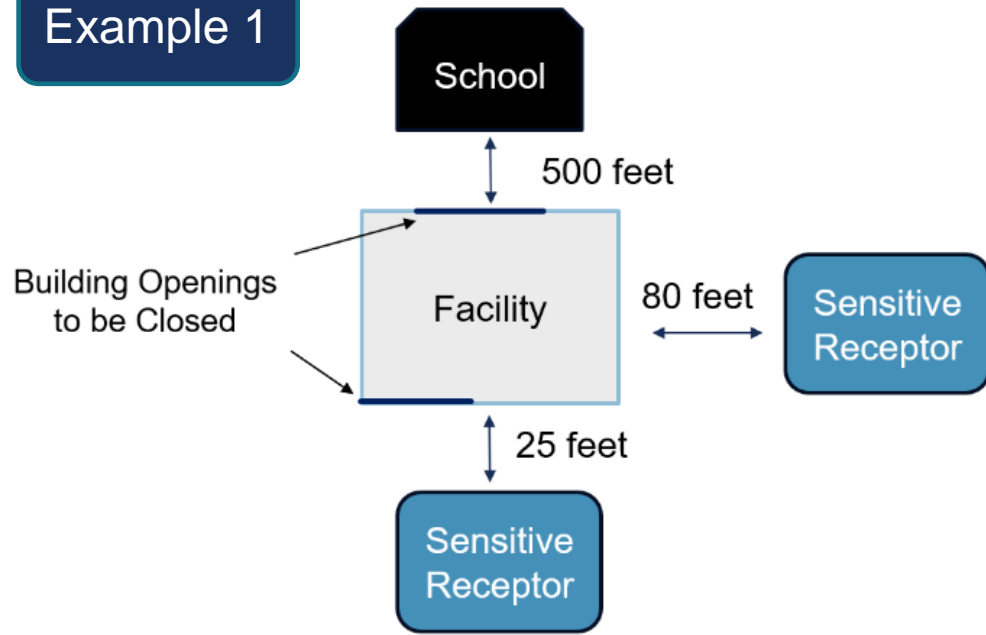
Building Requirements – (h)(3) and (h)(4)

- (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.

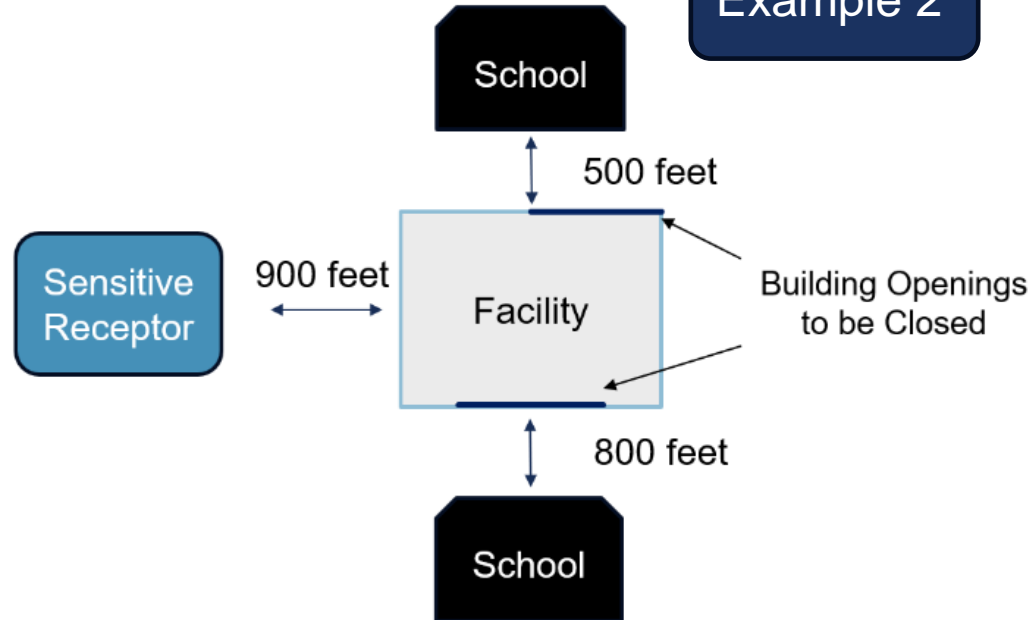
After January 1, 2026, use one of the previously specified options to close

- At least one opening on opposing ends of a Building during Metal Cutting
- Openings within 1,000 feet of a Sensitive Receptor or a School

Example 1



Example 2



Examples of scenarios where Sensitive Receptors and a School are near a facility - paragraph (h)(4) provisions

Building Requirements – (h)(5)

- (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.

Intent is to provide alternative requirements for a Portable Unit outside of a Building

- For Grade Level operations
 - Use a temporary enclosure
- For Above Grade Level operations
 - Use a temporary enclosure or demonstrate adequate collection through an acceptable smoke test (Appendix 1)

Effective date is based on Table 1 compliance schedule (*i.e.*, 2027/2028)

i) Housekeeping



Housekeeping – (i)

(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.

Proposed housekeeping requirements are consistent with recently adopted toxic metal particulate rules and are intended to minimize fugitive emissions

- Beginning January 1, 2025, use Approved Cleaning Methods to clean around
 - Units (daily when Unit is used)
 - Air Pollution Control Devices (weekly for Fixed devices, daily when Portable equipment is used)
- Store and dispose materials collected during housekeeping in closed containers

j) Best Management Practices



Best Management Practices – (j)

(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.

Preventative measures that can minimize generation of fugitive emissions

- Beginning January 1, 2025 for Filter-Based Air Pollution Control Devices
 - Weekly physical inspection of filter media
 - Conduct inspection and maintenance per manufacturers recommendations
 - Prevent air flow obstructions
 - Enclosed used filter media

k) Recordkeeping



Recordkeeping – (k)

(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.

Provides a mechanism to confirm compliance with rule requirements

- Records to demonstrate compliance with the following requirements
 - Air Pollution Control Device efficiency (d)
 - Testing (f)

Recordkeeping (*continued*)

- (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.

- Records to demonstrate compliance with the following requirements
 - Notifications for New Air Pollution Control Devices (f)(3) and (g)(2)
 - Pressure drop readings (g)(3)
 - Housekeeping (i)
 - Visual Inspections (j)
- Maintain records for five years, last two years of records onsite

I) Exemptions

Exemptions – (l)(1)

(l) 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 (l)(1)(A).

Intent is to exclude a Facility that is not a source of toxic emissions from metal cutting


- Applicable when all Units are prohibited from cutting any metal that contains Rule 1401 compounds
- Permit conditions and recordkeeping required to demonstrate eligibility

Exemptions – (l)(2) and (l)(3)

- (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 (l)(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.

Partial rule exemptions

- Unit(s) within a Facility that do not cut metals with Rule 1401 compounds excluded from control device requirements – Subdivisions (d), (e), (f), and (g)
 - Still subject to other requirements if Facility has other Unit(s) cutting Rule 1401 compounds
- Metal Cutting Facilities where all Units are within a Permanent Total Enclosure are excluded from Building requirements – Paragraphs (h)(2), (h)(3) and (h)(4)



Appendix 1 - Smoke Test Procedures


A smoke test is a qualitative procedure to demonstrate an Air Pollution Control Device has adequate capture efficiency

Appendix 1 specifies

- Necessary equipment
- Testing conditions/location
- Procedures
- Documentation
 - Photographs, or
 - Video

Appendix 1 – Smoke Test Procedures

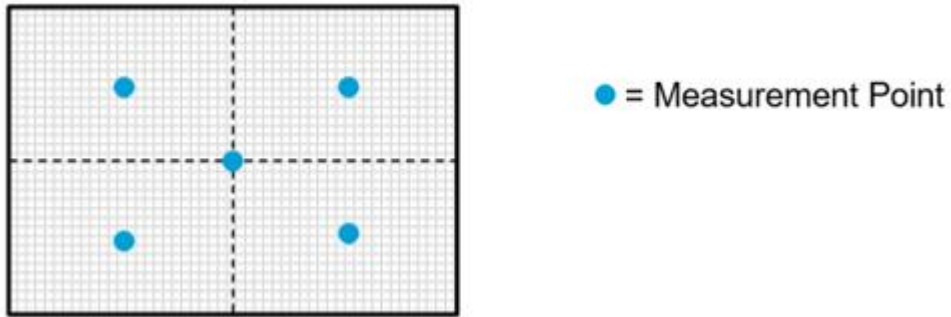
1. Applicability and Principle
 - 1.1 Applicability. This method applies to an owner or operator of a Portable or Fixed Unit that is required to conduct a smoke test pursuant to subdivisions (e) and (f) or subparagraph (h)(5)(B).
 - 1.2 Principle. A smoke device placed within the area where collection 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



Appendix 2 - Capture Velocity Measurement Procedures

Appendix 2

- Procedures identified to take measurements based on grid pattern across collection device



- For zoned down draft tables, one set of measurements required for each zone
- 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

Air velocity measurements are a quantitative procedure to demonstrate an Air Pollution Control Device has adequate capture efficiency

Appendix 2 specifies

- Necessary equipment
- Testing conditions/location
- Procedures
- Documentation
 - Testing information
 - Anemometer calibration
 - Air Velocity measurements

SUMMARY OF WORKING GROUP MEETING #5

Initial Rule Language discussed

- Control device requirements
 - New equipment
 - Existing equipment
- Performance Specifications
- Testing Requirements
- Pressure Drop
- Building Requirements
- Housekeeping
- Best Management Practices
- Recordkeeping
- Exemptions

SEEKING PUBLIC INPUT

Currently seeking public input on initial rule language

Submission of Comments or Documents

Comments on PR 1445 should be submitted by May 15, 2024

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NEXT STEPS



Refine Initial Rule Language



Public Workshop

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Rule 1426.1

Point Source Emissions from Hexavalent Chromium Metal Finishing Operations

Rule 1435

Control of Emissions from Metal Heat Treating Processes

Rule 1445

Control of Toxic Emissions from Laser and Plasma Arc Cutting

Rule 1455

Control of Toxic Emissions from Torch Cutting and Welding

Rule 1460


Control of Particulate Emissions from Metal Recycling and Shredding Operations


Toxic Air Contaminant Emissions from Decontamination of Soil

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