Working Group Meeting #7

PROPOSED RULE 1159.1 – CONTROL OF NOx EMISSIONS FROM NITRIC ACID UNITS (PR 1159.1)

South Coast AQMD

August 14, 2024

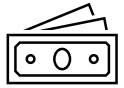
9:00 AM

Zoom webinar link:
https://scaqmd.zoom.us/j/95812953504
Join via teleconference:
Dial-in Number: +1 669 900 6833
Zoom Webinar ID: 958 1295 3504

Agenda

Summary of Working Group #6

Response to Comments



Cost-Effectiveness Update

Compliance Pathways Overview

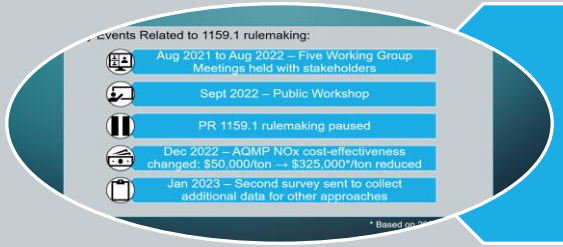
Changes to PR 1159.1

Second Preliminary Draft Rule Language (PDRL)

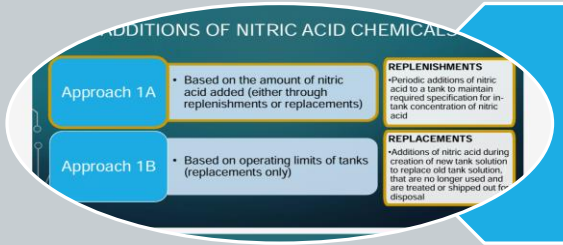
Next Steps

Summary of Working Group #6

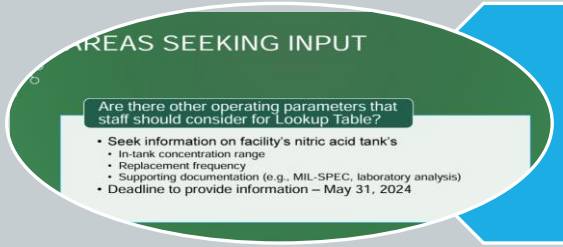
During the 6th Working Group meeting, staff presented:



Earlier Rulemaking and 2022 AQMP Cost-Effectiveness Update



New Approaches for Controls Post-2022 AQMP



Requested Stakeholder Input by May 31st

RESPONSE TO COMMENTS

Comment #1

THRESHOLDS SHOULD BE ADJUSTED FROM 5LBS TO 4.79LBS NO_X IN LOW USAGE EXEMPTION.

Staff Response:

- Confirmed that 4.79 lbs is accurate and agreed that more significant figures could be carried out when deriving low usage thresholds
  - Updated low usage threshold based on 4.79 lbs of NOx formed per gallon of nitric acid
- In substitution of the Low Usage Exemption Approaches, PR 1159.1 (2024) incorporates three alternative pathways to demonstrate compliance:
  - Option 1: (d)(1) – installation of an APCD
  - Option 2: (d)(2)(A) – source test Nitric Acid Units
  - Option 3: (d)(2)(B) – recordkeeping for individual and facility-wide usage

Comment #2

THERE SHOULD BE AN ADJUSTMENT FOR DRAGOUT.

Staff Response:

- Dragout is difficult to quantify – dependent on many factors that vary between units and facilities (e.g., drain time, throughput, type, and shape of part)
- Impractical to implement
  - Various factors would need to be incorporated into an enforceable document such as a permit or a plan
- Staff proposing to not include adjustments for dragout

Comment #3

THERE SHOULD BE AN ADJUSTMENT FOR EVAPORATION LOSS.

Staff Response:

- Amount of nitric acid lost due to evaporation is difficult to quantify
  - No emission factor
  - Operating conditions vary significantly
- Evaporation Adjustments previously included in PR 1159.1 (2022) is proposed to be removed
- In lieu of Evaporation Adjustments, PR 1159.1 (2024) includes provisions to demonstrate low NOx emissions through source testing

Comment #4

HAS DISTRICT CONSIDERED USE OF HYDROGEN PEROXIDE (H_2O_2) TO REDUCE NOX AND NITRIC ACID USE?

Staff Response:

- Reviewed materials submitted by stakeholder
  - H_2O_2 may reduce NOx formation by converting dissolved NOx back to nitric acid
  - Requires metering/dosing system to maintain nitric acid concentration
  - Real world data is limited
- The benefits of H_2O_2 could be reflected in reduced nitric acid usage or through source testing
- PR 1159.1 (2024) will not require or prohibit the use of H_2O_2

Comment #5

TITANIUM CHEMICAL MILLING TANKS USING HYDROFLUORIC ACID AND NITRIC ACID SHOULD NOT BE SUBJECT TO PR 1159.1 BECAUSE HYDROFLUORIC ACID REMOVES THE METAL.

Staff Response:

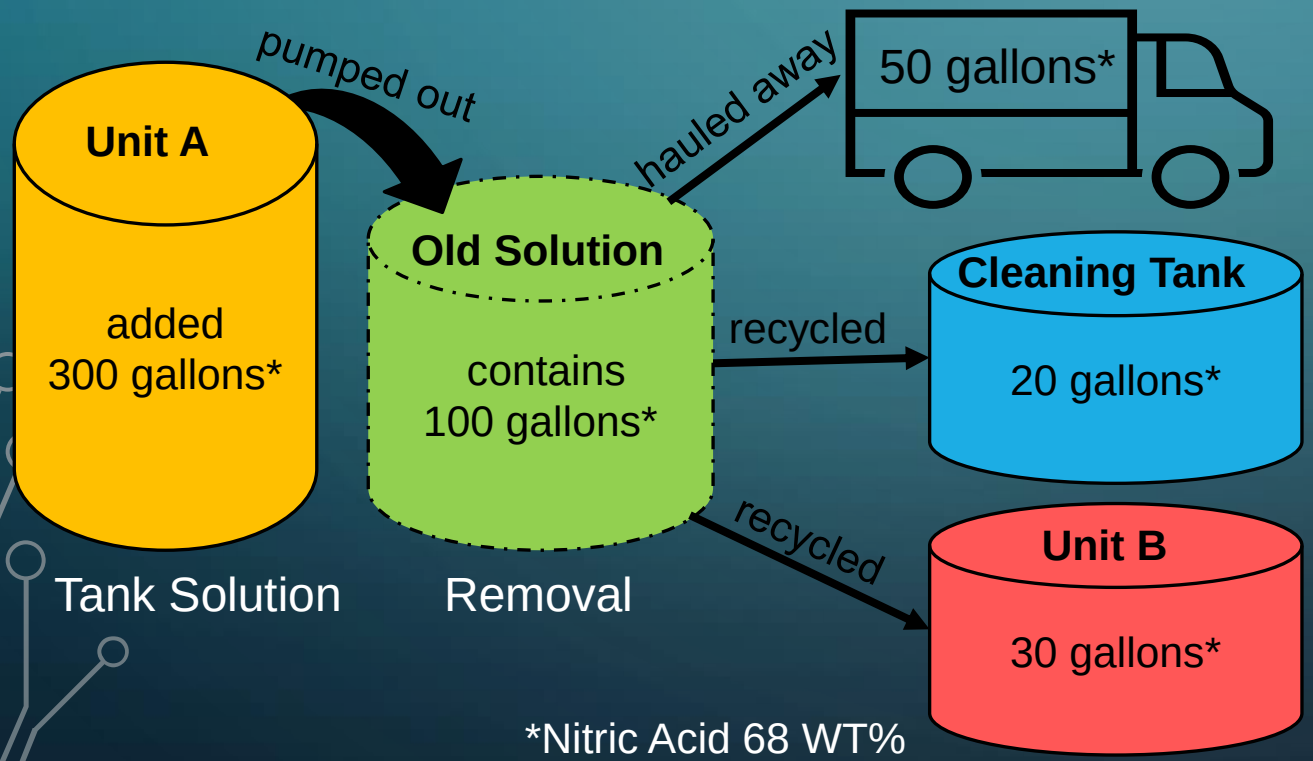
- Chemical milling using hydrofluoric acid alone does not form NOx but chemical milling using hydrofluoric acid and nitric acid forms NOx[1]
- PR 1159.1 (2024) regulates NOx emissions from units containing nitric acid
  - Chemical milling using hydrofluoric acid, without nitric acid, would not be subject to PR 1159.1
  - Chemical milling tanks using nitric acid would be subject to PR 1159.1

[1] http://www.chemcut.net/wp-content/uploads/2015/02/Etching-Titanium-with-HF-and-Nitric-Acid-Solutions-Part1.pdf

Comment #6 IS RECYCLED NITRIC ACID ELIGIBLE FOR THE ADJUSTMENTS?

Staff Response:

- PR 1159.1 (2024) will allow for removal adjustments (previously called disposal adjustments) for recycled use but additions to nitric acid unit using recycled acid will also count towards nitric acid addition



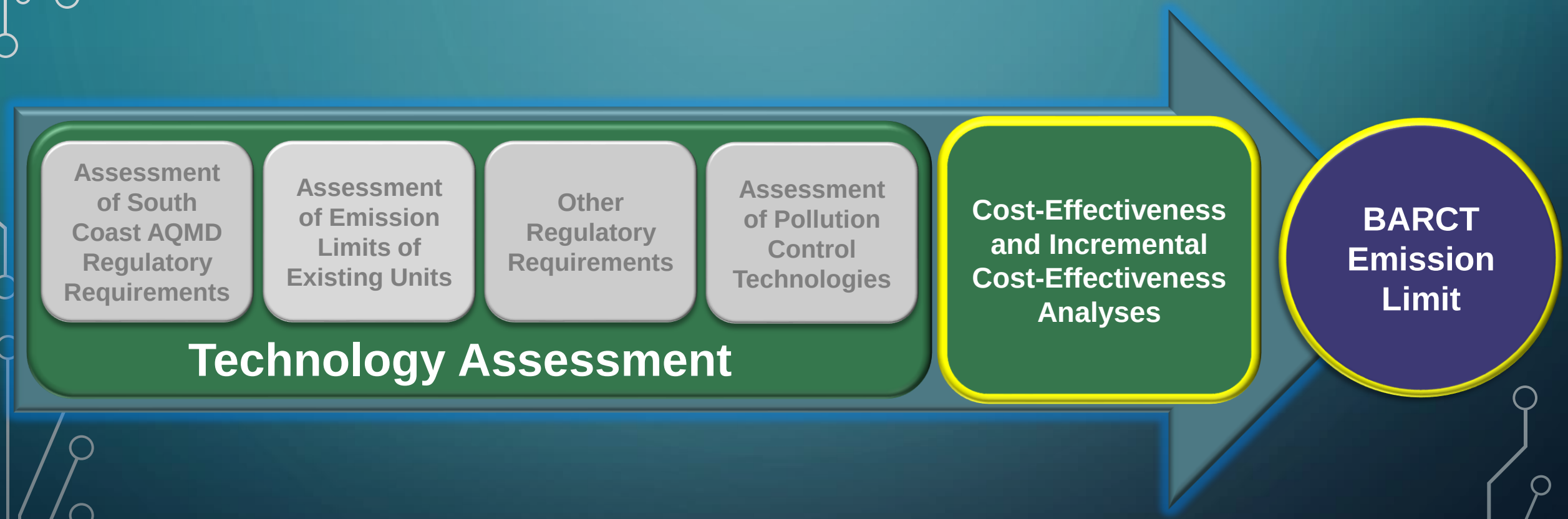
*Nitric Acid 68 WT%

Recordkeeping:

	Unit A	Unit B
Addition	300 gallons	30 gallons
Removal Adjustment	-100 gallons	
Total Additions	**200 gallons**	**30 gallons**

COST-EFFECTIVENESS UPDATE

BARCT Analysis Process



Updated BARCT Emission Limit

Technology Driven Limit in 2022

- In 2022, BARCT (0.3 lbs per hour) was established based on technological feasibility
- Cost was assumed to be minimal as no new APCD was anticipated

Updated Costs and Operating Assumptions

- Gathered additional information on capital cost and operating costs
- Modified annual operating hours for consistency with low usage threshold calculation

Updated BARCT Limit in 2024

- Accounting for costs associated with achieving the technology driven BARCT
- Based on 2022 AQMP cost-effective threshold

Summary of Updated Cost-Effectiveness Analysis

- ↑ Capital Costs to account for a more comprehensive cost estimate
  - Based on recent discussion with vendors
  - Equipment cost almost doubled – includes initial startup costs and complexity to control different configurations at a facility
- ↑ Annual Operating Costs to account for equipment maintenance costs
  - Includes operational labor, operation materials, wastewater disposal, electricity
  - Rule 1469 used 18% but electricity was added separately
- ↑ Operation hours to be consistent with assumption used in low usage calculation
- ↑ Cost-Effectiveness threshold to account for 2022 AQMP updates ($325,000/ton), adjusted by consumer price index ($362,600/ton)

Adjusted Cost-Effectiveness Analysis Details	2022	2024
Estimated Capital Costs	$1 million	$1.7 million
Annual Costs	$100,000	$230,000
Equipment Operation Assumption	2000 hrs	4360 hrs
Cost-Effectiveness Threshold	$50,000/ton	$362,600/ton

Impacts to Proposed Rule 1159.1

- Based on updated cost information, the needed emission reductions to be cost effective to install control would be **0.30 lbs/hr** (e.g.1 lb/hr to 0.7 lbs/hr)
- As the technology driven emission limit is 0.30 lbs/hr, it would be cost effective to install controls for emission rates above 0.60 lbs/hr (e.g. reducing uncontrolled emissions from 0.60 lbs/hr to 0.30 lbs/hr)
- PR 1159.1 includes multiple compliance pathways reflecting the new BARCT emission limit
  - Option 1: Install APCD to reduce emissions to 0.30 lbs/hr
  - Option 2: Source testing to demonstrate combined uncontrolled emissions from nitric acid units would be less than or equal to 0.60 lbs/hr
  - Option 3: Low nitric acid additions based on 0.60 lbs/hr
    - Revised individual unit threshold based on emission reductions from one APCD (550 gallons per calendar year)
    - Revised facility-wide threshold based on emission reductions from three APCDs (1650 gallons per calendar year)

COMPLIANCE PATHWAYS OVERVIEW

PR 1159.1 COMPLIANCE PATHWAYS

Pathway A:
(d)(1) –
APCD installation

OR

Pathway B:
(d)(2)(A) –
source test

OR

Pathway C:
(d)(2)(B) –
demonstrate low usage by recordkeeping

Threshold
Per unit: 550 gal/yr
Per facility: 1650 gal/yr

EXCEED THRESHOLD

DOES NOT EXCEED THRESHOLD –
no further action

(d)(1) –
install APCD

(d)(2)(A) –
source test

PR 1159.1 COMPLIANCE PATHWAYS EXAMPLE

Sample Facility A	**Unit 1**	**Unit 2**	**Unit 3**	**Unit 4**	**Unit 5**
Jan 2025	NO APCD	NO APCD	NO APCD	NO APCD	NO APCD
Compliance Pathway	(d)(1)	(d)(2)(A)	(d)(2)(A)	(d)(2)(B)	(d)(2)(B)
July 2025*	-	-	-	begin recordkeeping of additions and removal adjustments	
Jan 2026	submit APCD application	submit a source test report showing 0.25 lb/hr	submit a source test report showing 0.20 lb/hr	450 gal (2025)	500 gal (2025)
Category Evaluation	-	0.45 lb/hr (below combined emission rate of 0.60 lbs/hr)		950 gal (2025) (below individual and facility wide additions of 550 and 1650 gal)	
Next Steps	install APCD	-	-	maintain recordkeeping	maintain recordkeeping

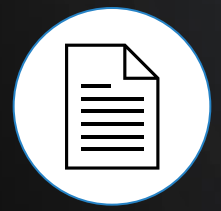
*Beginning *July 1, 2025,* maintain list of the compliance pathway elected for each Nitric Acid Unit at the facility

CHANGES TO PR 1159.1

PR 1159.1 Changes Since 2022

- Second Preliminary Draft Rule Language (PDRL) based on first PDRL* released September 2022 and includes many key changes made in the following subdivisions:
  - Monitoring, Recordkeeping, and Reporting Requirements in subdivision (g)
  - Definitions in subdivision (c)
  - Implementation Schedule in subdivision (e)
  - Source Testing Requirements and Test Methods in subdivision (h)

* https://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1159.1/pr-1159-1-preliminary-draft-rule-language.pdf?sfvrsn=6



SECOND PRELIMINARY DRAFT RULE LANGUAGE

PR 1159.1 Structure

2024		
	(a) Purpose	Update
	(b) Applicability	Update
	(c) Definitions	Update
	(d) Nitric Acid Unit Requirements	Key Updates
	(e) Facilities Exceeding 550-gallon Individual or 1650-gallon for all Nitric Acid Units Threshold	New
	(f) Inspection and Maintenance of Air Pollution Control Device	Key Updates
	(g) Monitoring, Recordkeeping, and Reporting Requirements	Key Updates
	(h) Source Testing Requirements and Test Methods	Key Updates
	Appendix A	New
	Appendix B	New

Purpose (a)

The purpose of this rule is to reduce emissions of Nitrogen Oxide (NOx) from Nitric Acid Units.

Applicability (b)

This rule applies to owners and/or operators of facilities with one or more Nitric Acid Unit(s).

- Simplified purpose and emission source
- Simplified who this rule applies to

Definitions (c)

(1) AIR POLLUTION CONTROL DEVICE (APCD) means an add-on air pollution control device that controls NOx Emissions from one or more Nitric Acid Units.

(2) CLEANING TANK means a tank containing nitric acid used to remove surface contaminants from parts where nitric acid is not intended to react with a metal.

(3) EXCEEDANCE YEAR means a calendar year when the adjusted additions of nitric acid into Nitric Acid Unit(s) exceed either threshold specified in clause (d)(2)(B)(i) or (d)(2)(B)(ii).

(4) NITRIC ACID UNIT means tank, reactor, vessel, or other container containing nitric acid, where nitric acid either reacts with a metal or decomposes at a temperature greater than 1700-degree Fahrenheit, that has been issued or is required to obtain a South Coast AQMD permit. A Nitric Acid Unit does not include a container used exclusively to store nitric acid, a Cleaning Tank, or a Rinse Tank.

(5) NOx EMISSIONS means the sum of nitric oxide and nitrogen dioxide emitted, calculated and expressed as nitrogen dioxide.

(6) PROCESS LINE means a series of tanks, including Nitric Acid Unit(s), necessary to conduct a specific process at the facility.

(7) RINSE TANK means any tank where a part is partially or fully submerged into a liquid to remove any residual solution from a Nitric Acid Unit or a Cleaning Tank.

- Reduced number of definitions by removing those no longer needed

Nitric Acid Unit Requirements (d)(1)

(d) Nitric Acid Unit Requirements

(1) Nitric Acid Units Vented to an APCD

(A) Performance Standards for APCDs

Beginning the date specified in *Table 1 – Implementation Schedule*, an owner or operator of a Nitric Acid Unit shall collect and vent emissions to an APCD(s) that meets one of the following requirements demonstrated by a source test report(s) conducted pursuant to subdivision (h):

(i) An overall NOx Emission rate from the combined Nitric Acid Unit(s) vented to the APCD at or below 0.30 pounds per hour (lb/hr); or

(ii) A NOx control efficiency of 99%; and

(B) Submittals of Permit Applications

Pursuant to the date specified in *Table 1 – Implementation Schedule* an owner or operator of a new or modified APCD shall submit a complete South Coast AQMD permit application for the APCD that meets the requirements in subparagraph (d)(1)(A).

Compliance dates specified in *Table 1 - Implementation Schedule*

(d)(1) specifies requirements for units with APCDs

- Performance standards (due January 1, 2028)
  - 0.30 lb/hr; or
  - 99% control efficiency
- APCD application submittal (due January 1, 2026 for existing units)

Nitric Acid Unit Requirements (d)(3)

(3) Facilities with Multiple APCDs Complying with Paragraph (d)(1)(A)

Beginning the date specified in *Table 1 – Implementation Schedule*, an owner or operator of two or more APCDs electing to comply with the requirements of clause (d)(1)(A)(i) in lieu of clause (d)(1)(A)(ii) shall demonstrate that the combined NOx Emission rates for all Nitric Acid Units vented to the APCDs subject to subparagraph (d)(1)(A) do not exceed 0.90 lb/hr by submitting a source test report(s) conducted pursuant to subdivision (h).

- Additional requirement for facilities with multiple APCDs complying with 0.30 lb/hr performance standard
- Multiple Nitric Acid Units can be controlled with a single APCD
  - Facility with the most Nitric Acid Units utilizes three APCDs
  - Facility-wide emission limit is 0.90 lb/hr (3 X 0.30 lb/hr)
- Emission rate from APCD's meeting the 99% control efficiency would not be counted

Nitric Acid Unit Requirements (d)(2)

In lieu of meeting the requirements in paragraph (d)(1), an owner or operator of a Nitric Acid Unit shall comply with at least one of the following beginning the date specified in *Table 1 – Implementation Schedule*:

(A) Source Testing

Demonstrate that the combined NOx Emission rate from all Nitric Acid Unit(s) at the facility that are not vented to APCD complying with (d)(1) and, if applicable, (d)(2)(B) and (d)(3) do not exceed 0.60 lb/hr by submitting a source test report(s) conducted pursuant to subdivision (h); and/or

(B) Recording Additions to Nitric Acid Units with a Permit to Operate Issued on or before [Date of Adoption]

Demonstrate that the adjusted additions to Nitric Acid Unit(s) do not exceed the following thresholds for any two calendar years of the most recent five calendar year period, including the current calendar year, as determined pursuant to paragraph (g)(2) and *Appendix A – Nitric Acid Additions and Adjustments*:

(i) 550 gallons of nitric acid calculated at 68 WT% per calendar year per Nitric Acid Unit; and

(ii) 1650 gallons of nitric acid calculated at 68 WT% per calendar year for all Nitric Acid Units.

In lieu of meeting (d)(1), two alternative compliance pathways are available

1. Source testing of all units using this pathway
   - Combined emission rate of ≤ 0.60 lb/hr
   - January 1, 2026
2. Recordkeeping of nitric acid additions of all units using this pathway
   - Adjustments allowed
   - Threshold included per unit and for all units
   - Recordkeeping begins July 1, 2025

Table 1 – Implementation Schedule

Table 1 – Implementation Schedule

Date Initial Permit to Operate Issued for Nitric Acid Unit	Rule Requirement	Compliance Date
On or before [Date of Adoption]	(d)(1)(B); (d)(2)(A); and (d)(2)(B);	January 1, 2026
	(d)(1)(A) and (d)(3)	January 1, 2028
After [Date of Adoption]	(d)(1)(A); and (d)(3)	Beginning 120 days after initial operation of the APCD
	(d)(2)(A)*	Beginning 120 days after initial operation of Nitric Acid Unit

**(d)(2)(B) is not a compliance option for Nitric Acid Units with Permit to Operate issued after [Date of Adoption]*

Implementation Schedule

- Compliance deadline of the Nitric Acid Unit falls under two main categories:
  - If the unit(s) are issued a permit before date of rule adoption
  - If the unit(s) are issued a permit after date of rule adoption

Nitric Acid Unit Requirements (d)(4)

Beginning July 1, 2025, an owner or operator of a Nitric Acid Unit shall maintain clear labeling for the following equipment:

(A) Nitric Acid Unit(s) with the tank number, if applicable, and South Coast AQMD application or permit number; and

(B) Cleaning Tanks with the South Coast AQMD tank number, if applicable, the label "Rule 1159.1 Cleaning Tank," and South Coast AQMD permit number.

Labeling requirements

- Label Nitric Acid Unit and Cleaning Tanks
- July 1, 2025 start date to allow facilities time to implement provision

Threshold Exceedances – (e)

Pursuant to the schedule specified in *Table 2 – Implementation Schedule for Facilities Exceeding Usage Threshold*, an owner or operator of a Nitric Acid Unit electing to comply with subparagraph (d)(2)(B) that exceeds either threshold specified in clause (d)(2)(B)(i) or (d)(2)(B)(ii) for any two calendar years within a five calendar year period shall meet the requirements of paragraph (d)(1) or subparagraph (d)(2)(A) for all Nitric Acid Unit(s) previously complying with subparagraph (d)(2)(B).

Table 2 – Implementation Schedule for Facilities Exceeding Usage Threshold

Applicability	Rule Requirement	Effective Date
Facilities required to comply with Subdivision (e)	(d)(1)(B)	No later than 18 months after the month in which the cumulative annual Nitric Acid additions exceed the threshold in the second Exceedance Year
	(d)(1)(A)	No later than 36 months after the month in which the cumulative annual Nitric Acid additions exceed the threshold in the second Exceedance Year
	(d)(2)(A)	Beginning 18 months after the month in which the cumulative annual Nitric Acid additions exceed the threshold in the second Exceedance Year

Specifies process when units complying with (d)(2)(B) exceed threshold

- Triggered by exceedance in second calendar year in last five years
- Two pathways:
  - Source test (d)(2)(A)
  - Install an APCD (d)(1)

Compliance dates specified in *Table 2*

- 18 months for (d)(2)(A)
- 36 months for (d)(1)

Inspection and Maintenance of APCD (f)

(f) Inspection and Maintenance of Air Pollution Control Device

An owner or operator of an APCD shall:

(1) Conduct visual inspections for leaks and malfunctions on the APCD per the manufacturer's recommended schedule or at least once every quarter, whichever is more frequent; and

(2) Maintain and operate the APCD in accordance with manufacturer's specifications and recommendations.

- Specifies inspection and maintenance requirements to ensure APCD is operating properly
- Effective date of rule adoption

Monitoring, Recordkeeping, and Reporting (MRR) – (g)(1)

(1) APCD Monitoring Requirements

Beginning January 1, 2025, an owner or operator of a Nitric Acid Unit shall monitor and record the following parameters for each APCD at least weekly for each week the APCD operates:

(A) Flowrate of scrubber solution for each stage of the APCD, if equipped with a flowmeter(s);

(B) pH of the scrubber solution for each stage of the APCD, if applicable; and

(C) Pressure drop across each stage of the APCD, if equipped with a magnehelic gauge(s).

- Weekly parameter monitoring of APCD to ensure equipment is operating properly
- January 1, 2025 start date

MRR (continued) – (g)(2) Units complying with (d)(2)(B)

An owner or operator of a Nitric Acid Unit electing to meet the requirements of paragraph (d)(2)(B) shall:

(A) Additions of Nitric Acid

Beginning July 1, 2025, record for each addition of nitric acid made to the Nitric Acid Unit(s) the following:

(i) Date of the addition;

(ii) Volume of the addition, in gallons;

(iii) Concentration of nitric acid in the addition based on either:

(I) Highest concentration listed on the manufacturer's Safety Data Sheet (SDS); or

(II) Chemical analysis of a sample; and

(iv) Volume of addition, calculated at 68 WT% pursuant to *Appendix A – Nitric Acid Additions and Adjustments*;

(B) Optional Nitric Acid Removal Adjustments

Beginning July 1, 2025, if deducting the amount of nitric acid unreacted with a metal and removed from a Nitric Acid Unit(s), record the following information for each removal of unreacted nitric acid:

(i) Date of the removal;

(ii) Volume of the removal, in gallons;

(iii) Concentration of nitric acid removed as determined by chemical analysis; and

(iv) Volume of nitric acid removed, calculated at 68 WT% pursuant to *Appendix A – Nitric Acid Additions and Adjustments*;

Specific recordkeeping for units complying with (d)(2)(B)

- Additions of Nitric Acid
- Optional removal adjustments
- July 1, 2025 start date

Recorded in equivalent of 68 WT%

- *Appendix A* provides instructions

MRR (continued) – (g)(2) Units complying with (d)(2)(B)

(C) Beginning July 1, 2025, retain:

(i) SDS or sample analysis report for each addition of nitric acid recorded pursuant to subparagraph (g)(2)(A); and

(ii) Sample analysis report of the sample for each nitric acid removal recorded pursuant to subparagraph (g)(2)(B);

(D) Monthly Records of Additions to Nitric Acid Units

Beginning July 1, 2025, record the adjusted additions of nitric acid at 68 WT% per month for each Nitric Acid Unit and all Nitric Acid Units(s), calculated pursuant to *Appendix A – Nitric Acid Additions and Adjustments* and recorded pursuant to *Appendix B – Recordkeeping Form* no later than 7 days after each calendar month.

(E) Annual Records of Additions to Nitric Acid Units

Beginning January 1, 2026, record the adjusted additions of nitric acid at 68 WT% per the preceding calendar year for each Nitric Acid Unit and all Nitric Acid Units(s), calculated pursuant to *Appendix A – Nitric Acid Additions and Adjustments* and recorded pursuant to *Appendix B – Recordkeeping Form* no later than February 1 of each year.

(continued)

Recordkeeping of supporting documents

- Safety Data Sheets
- Analysis reports

Monthly and annual summary of additions to units

- *Appendix B provides* forms to be used
- Allows facility to track their nitric acid usage through the year(s)

MRR (continued) – (g)(3) and (g)(4)

(3) Compliance Pathway for Nitric Acid Units

Beginning July 1, 2025, an owner or operator of a Nitric Acid Unit shall maintain a list of the Nitric Acid Units with the following information:

(A) South Coast AQMD application or permit number;

(B) Tank number and name; and

(C) Elected compliance pathway for each Nitric Acid Unit, either subparagraph (d)(1)(A), (d)(2)(A), or (d)(2)(B).

(4) Record Retention Requirements

All records shall be maintained and kept on site for at least five years and made available to the Executive Officer upon request.

Compliance Pathway List

- Beginning July 1, 2025
- Kept up to date
- Each Nitric Acid Unit, either
  - Vented to APCDs
  - Source tested
  - Recordkeeping of nitric acid usage

Recordkeeping retention requirements

- Five-year record retention and kept onsite

Source Testing Requirements and Test Methods (h)(1) – Protocol Submission

(1) Submittal of Source Test Protocol Prior to Source Testing

Prior to conducting a source test to demonstrate compliance with the requirement in clause (d)(1)(A)(i), (d)(1)(A)(ii) or subparagraph (d)(2)(A), the owner or operator of a Nitric Acid Unit shall submit a source test protocol with the information specified in paragraph (h)(2) or (h)(3), as applicable, to sourcetesting@aqmd.gov or a South Coast AQMD web portal for approval.

- Approved source test protocol required prior to source tests

Source Testing Requirements and Test Methods (h)(2) and (h)(3) - Protocol

(2) Protocol for Source Tests for Nitric Acid Units Equipped with an APCD

An owner or operator of a Nitric Acid Unit demonstrating compliance with the requirement in clause (d)(1)(A)(i) or (d)(1)(A)(ii) shall submit a source test protocol to sourcetesting@aqmd.gov or a South Coast AQMD web portal that includes:

(A) Facility information;

(B) Description of the operations to be tested;

(C) Parameters being measured;

(D) Source test methods used pursuant to:

(i) Method 100.1 – Instrumental Analyzer Procedures for Continuous Gaseous Emission Sampling (March 1989); and

(ii) South Coast AQMD Methods 1.1-4.1 to determine stack gas flowrate

(E) Design criteria and the ventilation parameters;

(F) The number of test runs;

(G) Test conditions that represent normal operations of the Nitric Acid Unit(s); and

(H) South Coast AQMD permits for the Nitric Acid Unit(s) controlled by the APCD.

(3) Protocol for Source Tests for Nitric Acid Units Not Equipped with an APCD

An owner or operator of a Nitric Acid Unit demonstrating compliance with the requirement in subparagraph (d)(2)(A) shall submit a source test protocol to sourcetesting@aqmd.gov or a South Coast AQMD web portal that includes:

(A) Information specified in subparagraphs (h)(2)(A) through (F) and South Coast AQMD permit for the Nitric Acid Unit(s); and

(B) Test conditions that represent maximum operations of the Nitric Acid Unit(s): highest temperature, highest nitric acid concentration, throughput, and most reactive metal or as approved in the source test protocol.

- Specifies required elements to be included in source test protocol

Source Testing Requirements and Test Methods (h) – Source Test

(4) Conducting of Source Tests

An owner or operator of a Nitric Acid Unit required to meet the requirements in clause (d)(1)(A)(i), (d)(1)(A)(ii), or subparagraph (d)(2)(A), shall conduct a single run source test:

(A) According to the most recently approved source test protocol for the APCD or Nitric Acid Unit(s);

(B) If conducting a source test for an APCD, confirming operations of the APCD is consistent with the design and operational conditions specified in its SCAQMD approved permit; and

(C) If conducting a source test for a Nitric Acid Unit(s) not equipped with an APCD, confirming proper collection and quantification consistent with the applicable testing procedures specified in *Measurement of Hexavalent Chromium Emissions from Chromium Plating and Chromic Anodizing Operations for Certification of Wetting Agent Chemical Mist Suppressants Subject to SCAQMD Rule 1469* (2013) or other SCAQMD approved method.

- Specifies how a required source test is to be conducted
  - Units with APCD *complying with (d)(1)(A)*
  - Units without APCDs *unless complying with (d)(2)(B) through recordkeeping of nitric acid usage*

Source Testing Requirements and Test Methods (h) – Frequency and Reporting

(5) Periodic Source Testing for APCDs

No later than five calendar years from the last source test that demonstrated compliance with the requirement in clause (d)(1)(A)(i) or (d)(1)(A)(ii), an owner or operator of a APCD shall conduct a subsequent source test pursuant to paragraph (h)(4).

(6) Submittal of Final Source Test Report

No later than 60 days after date source test was conducted, an owner or operator of a Nitric Acid Unit shall submit the complete final source test report to sourcetesting@aqmd.gov or a South Coast AQMD web portal.

- Periodic source testing every five years for APCDs
- Reports due within 60 days of source test

NEXT STEPS

Seeking Stakeholder Input

Stakeholder comments due August 28, 2024

NEXT STEPS

Public Workshop

Preliminary Draft Rule Language & Staff Report

30-Day Documents

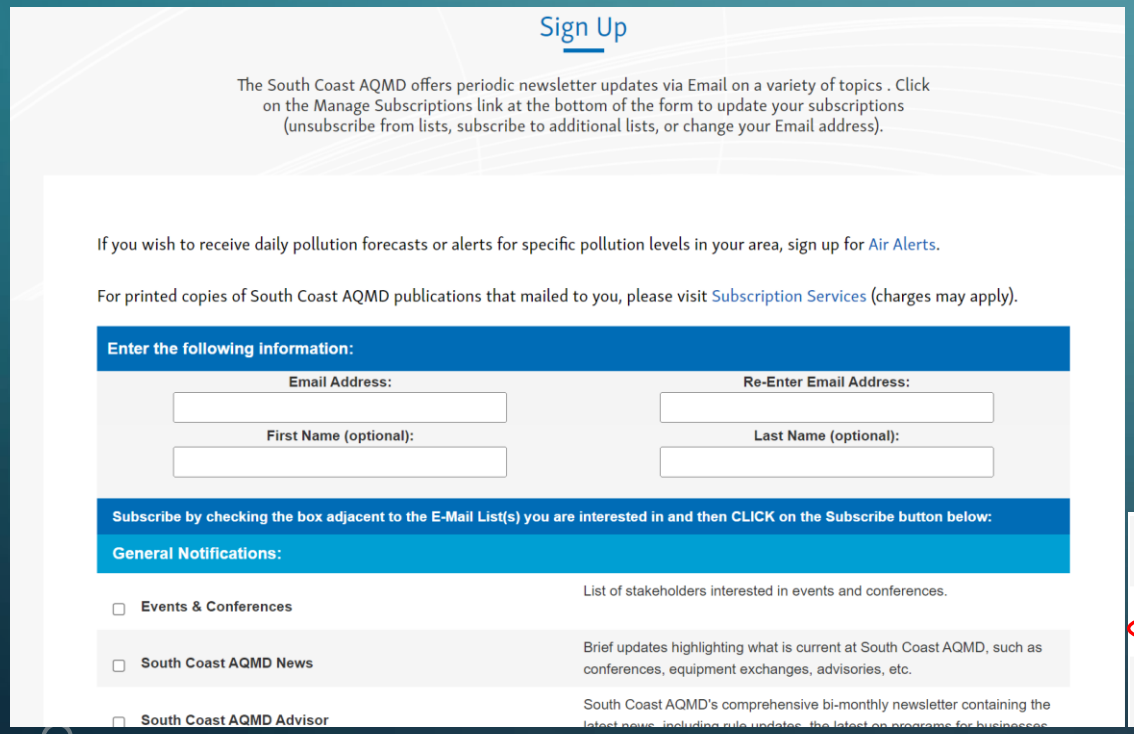
Draft Rule Language & Staff Report

4TH QUARTER

Public Hearing for PR 1159.1

Staying Updated with PR 1159.1

- Sign up and receive email updates via *http://www.aqmd.gov/sign-up*



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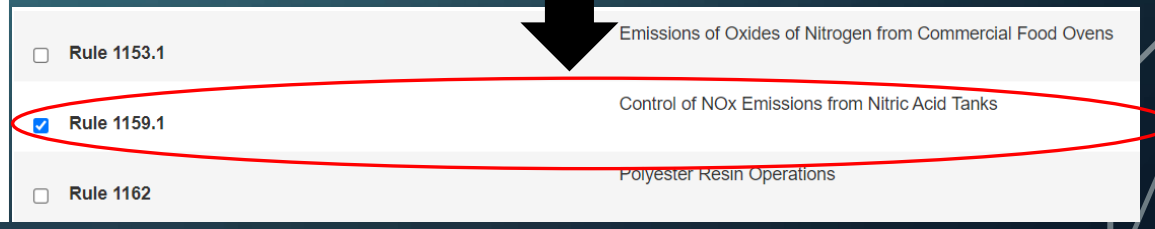

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