Working Group Meeting #1

PROPOSED RULE 1159.1 – CONTROL OF NOx EMISSIONS FROM NITRIC ACID TANKS

South Coast AQMD

August 4, 2021

1:00 PM

Zoom webinar link:
https://scaqmd.zoom.us/j/96159839406
Join via teleconference:
Dial-in Number: +1 669 900 6833
Zoom Webinar ID: 961 5983 9406

Meeting Information

- South Coast AQMD acknowledges the challenges to businesses and stakeholders due to COVID-19
- To ensure safe social distancing, Working Group meetings initially will be held via Zoom or a call-in option is also available
- Although it is a different format, staff will take the time to listen to all stakeholder comments
- As we move through the rulemaking process, staff anticipates meetings will move into a hybrid format that will provide the option of in-person and remote participation
- In addition to Working Group meetings, staff is available for individual meetings

AGENDA

- Background
  - RECLAIM
  - Nitric Acid Tanks
- Rule Development Process
- Next Steps

BACKGROUND

RECLAIM BACKGROUND

- 2016 Air Quality Management Plan
  - Adoption Resolution called for further NOx reductions from an assessment of the RECLAIM program, including:
    - 5 tons per day NOx reduction to be achieved no later than 2025; and
    - Transitioning RECLAIM to a command-and-control regulatory structure
- 2017 – AB 617
  - Applicable to facilities in the state greenhouse cap and trade program
  - Requires an implementation schedule by January 1, 2019
  - Requires Best Available Retrofit Control Technology (BARCT) implementation by December 31, 2023
    - Prioritize older, higher emitting units
    - Focus on units that have not implemented BARCT since 2007

TRANSITIONING NOx SOURCES

- Prior to transitioning facilities from RECLAIM to a command-and-control regulatory structure, a “landing rule” that establishes NOx emission limits is needed for each equipment category under RECLAIM
- Most of NOx sources under RECLAIM are combustion sources
- Proposed Rule 1159.1 (PR 1159.1) would address non-combustion based NOx emissions from nitric acid tanks

Equipment*	Rule	Status
Boilers	1146.2	√
Flares	1118.1	√
Gas Turbines	1134	√
Gaseous Liquid Fuel Engines	1110.2	√
Food Ovens	PAR 1153.1	Underway
Metal Melting and Heating Furnaces	PR 1147.2	Underway
Miscellaneous Combustion Sources	PAR 1147	Underway
Nitric Acid Tanks	PR 1159.1	Underway

*not a comprehensive list

NITRIC ACID TANKS

- A nitric acid tank is equipment such as a tank, vessel, or reactor that typically removes metal using a chemical reaction with nitric acid
  - Chemical reaction results in the formation of the NOx
  - Removing more metal requires more nitric acid
  - Amount of NOx generated is proportional to the amount of nitric acid used
- Nitric acid tanks are used to remove metals and are primarily found in two industries
  - Metal Finishing
  - Precious Metal Reclamation

METAL FINISHING

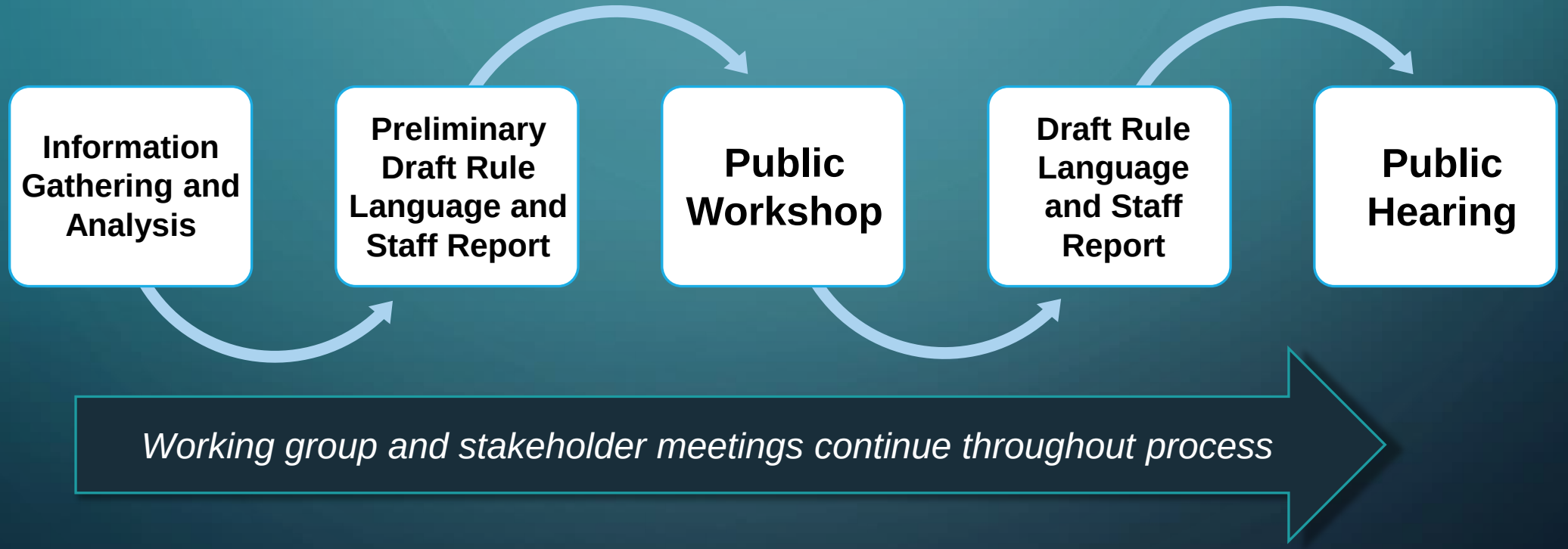
- Metal finishing is the surface treatment of a metal substrate to give it desired characteristics using multiple open process tanks in a line of tanks
- Each process tank in the line has a different purpose
- Nitric acid is typically used in process tanks when material from a part or substrate needs to be removed
- Nitric acid tanks (open process tanks)
  - Removes a small surface layer of metal from a part or passivates the part to protect it
  - Operates typically from several seconds or minutes during the process
  - Makes up a small percentage of the tanks in a metal finishing line
  - Requires infrequent additions of nitric acid

PRECIOUS METAL RECLAMATION

- Precious metal reclamation typically involves the recovery of valuable metals from scraps
  - Gold
  - Platinum
  - Palladium
- Nitric acid tanks (reactors or vessels)
  - Dissolves the metal completely
  - Operates up to several days until complete
  - Makes up a higher percentage of the equipment since metal removal plays a more central role at the facility
  - Requires regular additions of nitric acid (e.g. 130 gallons per cycle)

RULE DEVELOPMENT PROCESS

OVERVIEW OF RULE DEVELOPMENT PROCESS

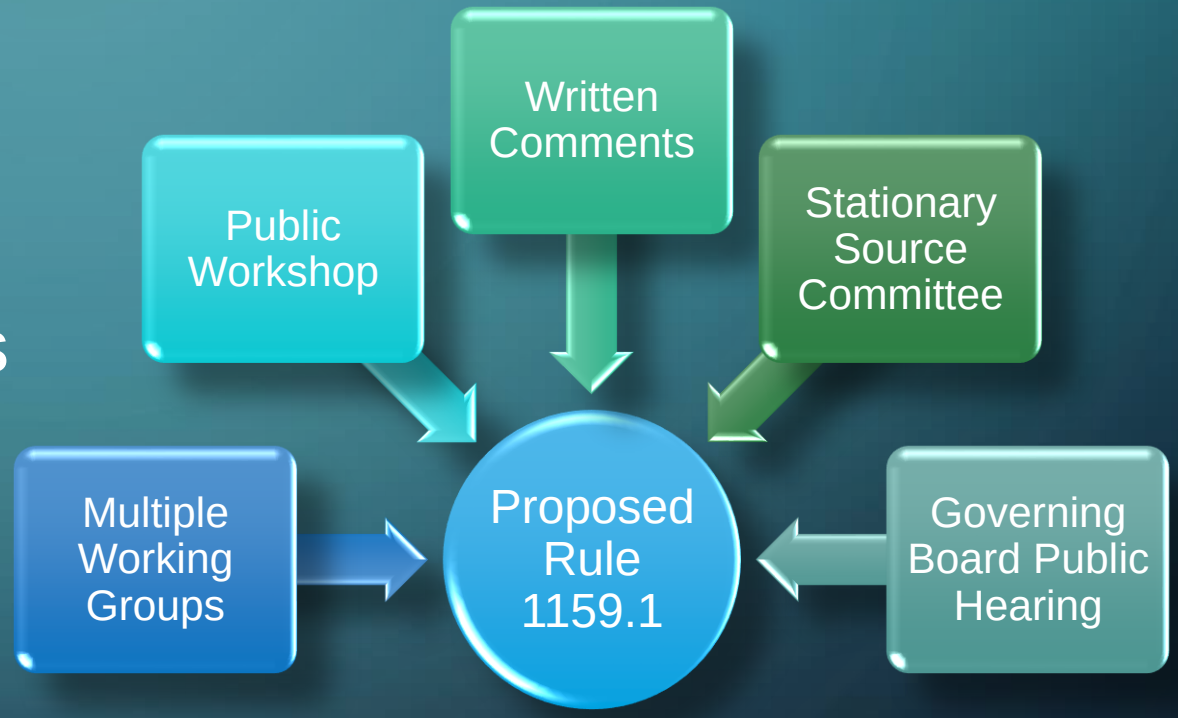


PR 1159.1 WORKING GROUP

- Comprised of stakeholders including industry, environmental groups, community members, and public agencies
- Held throughout the rule development process and open to the public
- Objectives:
  - Build consensus and work through issues
  - Opportunity for early input by stakeholders
  - Develop a rule that affected facilities can implement
- Assist staff in understanding:
  - Key issues and concerns
  - Industry terms, industry practices, etc.
  - Applicable technologies

STAKEHOLDER INPUT

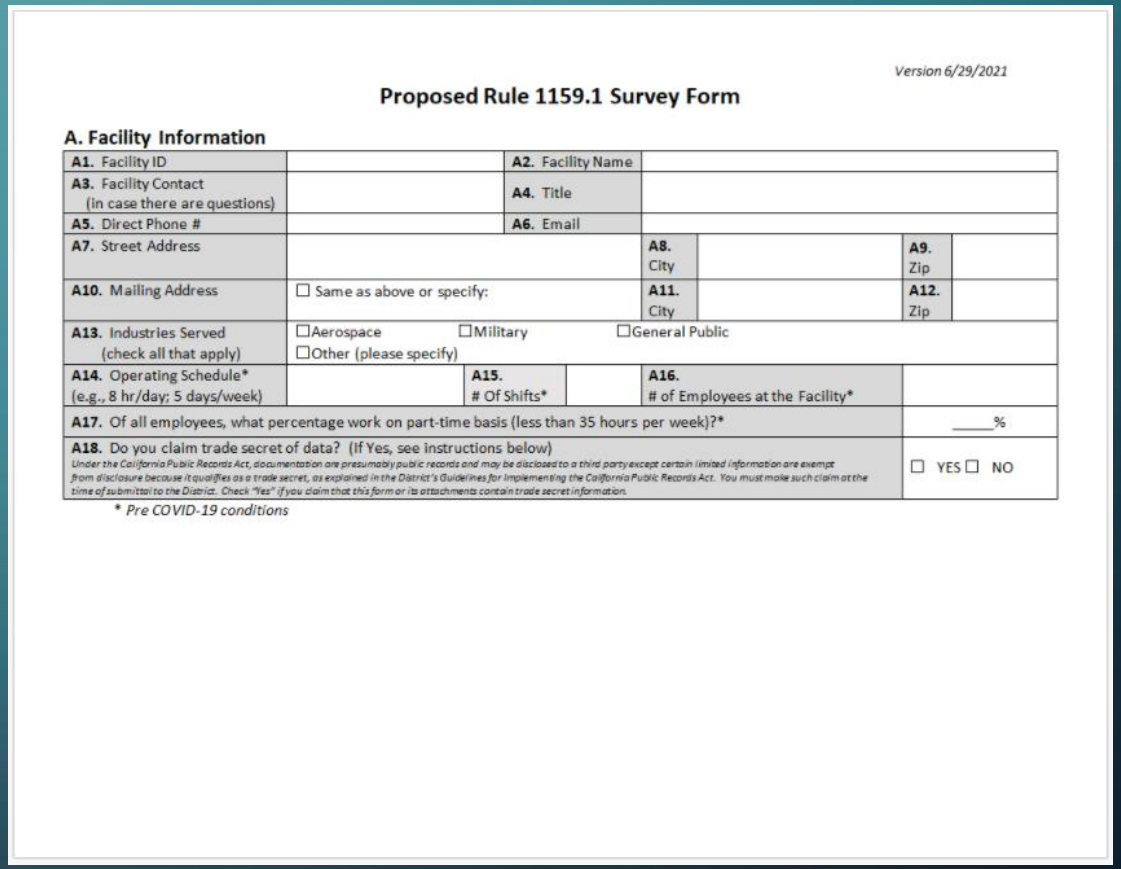
- Stakeholders can provide input throughout the rulemaking process
- Early input is strongly encouraged to help develop proposed rule and to address issues
- Working Group Meetings, Individual Meeting and Site Visits allow stakeholders to directly speak to staff to discuss individual issues



NEXT STEPS: INFORMATION GATHERING

SURVEY

- Staff will be distributing a survey to facilities
- Objective is to collect current operational information about equipment type, tank or vessel information, and materials processed



Version 6/29/2021

Proposed Rule 1159.1 Survey Form

A. Facility Information

A1. Facility ID		**A2.** Facility Name				
A3. Facility Contact (in case there are questions)		**A4.** Title				
A5. Direct Phone #		**A6.** Email				
A7. Street Address			**A8.** City		**A9.** Zip	
A10. Mailing Address	☐ Same as above or specify:		**A11.** City		**A12.** Zip	
A13. Industries Served (check all that apply)	☐Aerospace ☐Military ☐General Public ☐Other (please specify)					
A14. Operating Schedule* (e.g., 8 hr/day; 5 days/week)		**A15.** # Of Shifts*		**A16.** # of Employees at the Facility*		
A17. Of all employees, what percentage work on part-time basis (less than 35 hours per week)?*						____%
A18. Do you claim trade secret of data? (If Yes, see instructions below) *Under the California Public Records Act, documentation are presumably public records and may be disclosed to a third party except certain limited information are exempt from disclosure because it qualifies as a trade secret, as explained in the District's Guidelines for Implementing the California Public Records Act. You must make such claim at the time of submittal to the District. Check "Yes" if you claim that this form or its attachments contain trade secret information.*						☐ YES ☐ NO

* *Pre COVID-19 conditions*

NEXT STEPS

- Proceed with rulemaking for Proposed Rule 1159.1 to reduce NOx emissions from nitric acid tanks
- Information gathering from facilities with nitric acid tanks
  - Send out facility survey to affected facilities
  - Conduct site visits if possible

PR 1159.1 STAFF CONTACTS

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