



Proposed Amended Rule 1153.1

Emissions of Oxides of Nitrogen from Commercial Food Ovens

Working Group Meeting #1

July 9, 2021

Join Zoom Webinar Meeting

<https://scaqmd.zoom.us/j/97082341703>

Teleconference Dial-In: 1-669-900-6833

Webinar Meeting ID: 970 8234 1703

Agenda

Meeting Format

Rule Development Process

RECLAIM Background

BARCT Analysis

Rule 1153.1

Meeting Format

South Coast AQMD acknowledges the challenges to businesses and stakeholders due to COVID-19

Consistent with Governor Newsom's Executive Order N-29-20 (March 17, 2020) and to ensure safe social distancing, Working Group Meetings will be held via Zoom and telephone

Although it is a different format, staff will take the time to listen to all stakeholder comments

In addition to Working Group Meetings, staff is available for individual meetings

Through the rulemaking process, South Coast AQMD will be transitioning to conducting meetings with a hybrid approach of in-person and remote access (Zoom and telephone)

Rule Development Process

Rule 1153.1

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 sources can implement

Assists staff in understanding:

- Issues and concerns
- Industry terms, industry practices, etc.
- Applicable technologies
- Best management practices

Overview of Rule Development Process



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

RECLAIM Background

- 2016 Air Quality Management Plan
 - Adoption Resolution called for further NO_x reductions from an assessment of the RECLAIM program, including:
 - 5 tons per day NO_x 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

BARCT Requirements

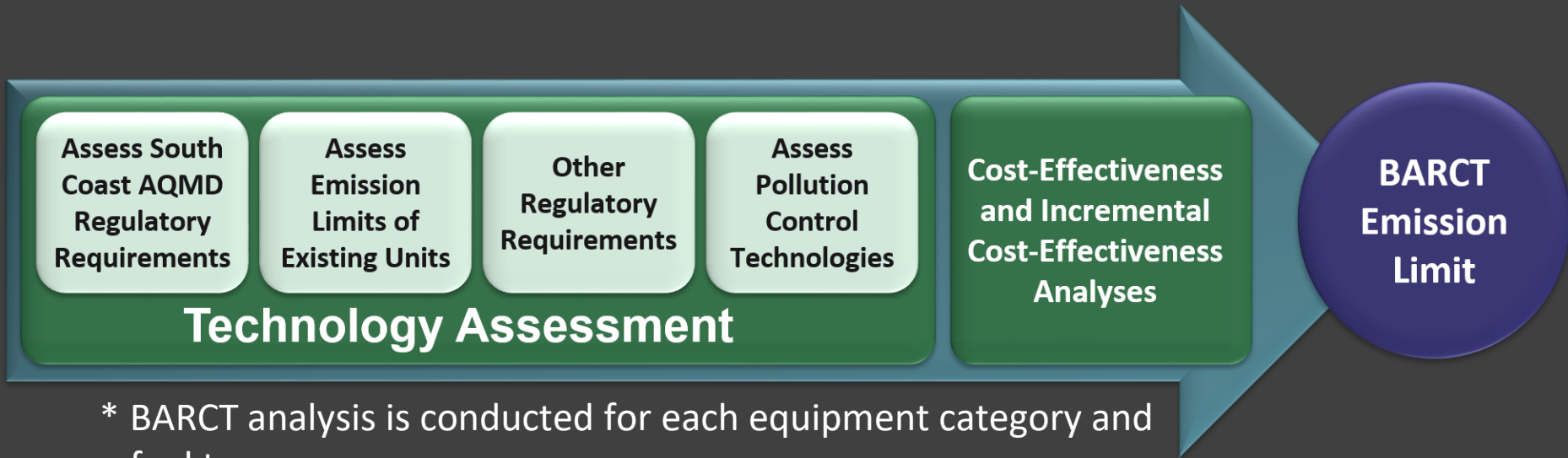
California Health and Safety Code Section 40406
defines BARCT as:

“...an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source.”

California Health and Safety Code Section 40920.6
requires:

- Evaluation of BARCT prior to adopting rules or regulations
- Assessment of the cost-effectiveness of the potential control option

BARCT Analysis



* BARCT analysis is conducted for each equipment category and fuel type

Rule 1153.1

Rule 1153.1 Background

- Adopted on November 7, 2014
- Moved food ovens from Rule 1147 (miscellaneous combustion) into Rule 1153.1
 - Rule 1153.1 has higher NOx limits than Rule 1147
 - Relative to Rule 1147, Rule 1153.1 delayed compliance for at least two years
- In addition to NOx emission limits, Rule 1153.1 includes:
 - CO emission limits
 - Alternative compliance options
 - Emission testing
 - Equipment maintenance
 - Recordkeeping

Rule 1153.1 Applicability and Affected Sources

- Applies to ovens, dryers, smokers, and dry roasters used to prepare human food or beverage ingredients
- 6 RECLAIM facilities and 92 non-RECLAIM facilities that operate permitted food ovens, dryers, smokers, or dry roasters
 - Estimated NOx emissions from RECLAIM and non-RECLAIM units are both 0.1 tons/day (0.2 tons/day total)

Permitted Equipment Type	Number of Units		Total
	RECLAIM	Non-RECLAIM	
Food Ovens	14	102	116
Dryers	46	7	53
Roasters	0	58	58
Smokehouses/Smoke Generators	6	4	10
Total	66	171	237

Implementation of Rule 1153.1 Emission Limits

- Phased-in compliance with NOx and CO emission limits for in-use units are based on date of equipment manufacture
- Allows implementation to align with timeline of when burner replacements or burner control system upgrades at the end of burner life
- Implementation dates range from 2018 to 2022

Equipment Category(ies)	Permit Application Shall be Submitted By	Unit Shall Be in Compliance On and After
Ovens used solely for making pita bread manufactured prior to 1999	October 1, 2017	July 1, 2018
Griddle ovens manufactured prior to 1999	October 1, 2017	July 1, 2018
Ovens heated solely by indirect-fired radiant tubes manufactured prior to 2002	October 1, 2021	July 1, 2022
Other unit manufactured prior to 1992	October 1, 2015	July 1, 2016
Other unit manufactured from 1992 through 1998	October 1, 2018	July 1, 2019
Ovens heated solely by indirect-fired radiant tubes manufactured after 2001 and any other unit manufactured after 1998	October 1 of the year prior to the compliance date	July 1 of the year the unit is 20 years old

Rule 1153.1 Emission Limits

- Established NOx and CO limits for in-use equipment based on process temperature

NOx Emission Limit	
PPM @ 3% O ₂ , dry or Pound/mmBTU heat input	
Process Temperature	
$\leq 500^{\circ} F$	$> 500^{\circ} F$
40 ppm or 0.042 lb/mmBTU	60 ppm or 0.073 lb/mmBTU

* Carbon Monoxide Limit is 800 ppm by volume, referenced to 3% oxygen

Additional Rule 1153.1 Provisions

Alternative
Compliance
Plans

Compliance
Demonstration

Equipment
Monitoring and
Maintenance

Recordkeeping

Alternative Compliance Options

Alternative Compliance Plan Option	Conditions for Alternative Plan	Current Use by Facilities
Option 1: Alternative Compliance Plan for Three or More Units with Compliance Dates in the Same Year or Two Consecutive Years	<ul style="list-style-type: none">• Delay and phase in compliance no more than:<ul style="list-style-type: none">• Three years for 3 or 4 units; and• Five years for ≥ 5 units• ≥ 1 unit must meet the applicable emission limit by the first compliance date, and ≥ 1 unit must meet the applicable emission limit each year thereafter	One
Option 2: Alternative Compliance Plan for Units with Full Burner Replacements Prior to November 7, 2014	<ul style="list-style-type: none">• Extend compliance by:<ul style="list-style-type: none">• Five years after the replacement if the unit operates > 8 hours on any day; or• Ten years after the replacement if the unit operates ≤ 8 hours on each day of operation	Zero
Option 3: Mitigation Fee	<ul style="list-style-type: none">• Delay compliance up to 3 years	Zero

Additional Requirements

Compliance Demonstration

- Source testing; or
- Certification for units that do not allow fuel or combustion air adjustment

Equipment Monitoring and Maintenance

- Fuel meters for units complying with a lbs/MMBtu emission limit
- Combustion system maintenance

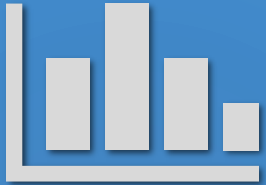
Recordkeeping

- Rated heat input capacity for modified units
- Source test reports and certification records
- Installation, operation, modification, and maintenance/repair
- Alternative compliance plan and mitigation fee payments

Exemptions

- The following equipment are exempt from Rule 1153.1
 - Units subject to Rules 222, 1146, 1146.1, 1146.2, Regulation XX
 - Solid fuel-fired combustion equipment
 - Charbroilers
 - Fryers
 - Emission control equipment (i.e., afterburners)
- Units with ≤ 1 pound per day of NO_x emissions
 - Exempt from the emissions limits and emissions testing
 - Subject to equipment maintenance and recordkeeping requirements
- Units heated solely with infrared burners
 - Exempt from emissions testing

Next Steps



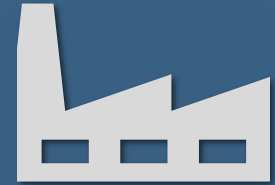
Staff is in the information gathering phase of rule development



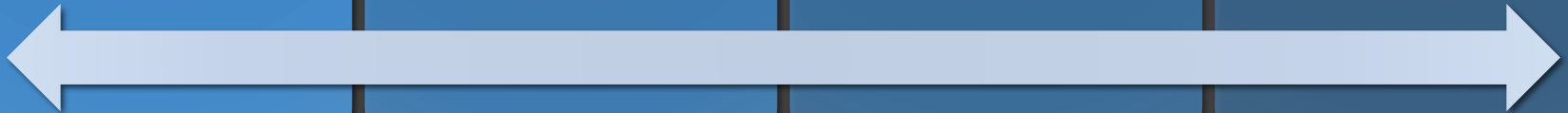
Future working group meetings will share results of BARCT Analysis



Stakeholders are welcome to request individual meetings to discuss rule concepts



Staff will be conducting site visits to further understanding



Tentative Schedule

Individual Meetings and Site Visits

- Ongoing

Next Working Group Meeting

- 4-6 Weeks

Public Workshop

- November 2021

Stationary Source Committee

- November 2021

Set Hearing

- January 7, 2022

Public Hearing

- February 4, 2022

Contact Information

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For more information:

[PAR 1153.1 Proposed Rules
Web Page](#)

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