

Update on Best Available Retrofit Control Technology (BARCT) Rule Evaluation

San Joaquin Valley Air Pollution Control District
Public Workshop
July 30, 2020

Decades of Stringent Air Quality Regulations

- District has long evaluated and implemented stringent control measures across all sources under its jurisdiction in efforts to attain federal standards
 - Adopted over 650 rules and rule amendments in order to control emissions from stationary sources and other local sources
 - District's New Source Review permitting regulation requires the use of the Best Available Control Technology (BACT)
- District stationary sources subject to BARCT since 1980s
- Robust and ongoing analysis necessary to demonstrate that District's rules continue to meet state and federal requirements, including BARCT
 - Increasingly stringent air quality standards
 - Control technologies continually evolving

Update on AB 617 BARCT Review

- Best Available Retrofit Control Technology (BARCT) is an air emission limit for existing sources and is maximum degree of reduction achievable, taking into account environmental, energy and economic impacts
- AB 617 requires expedited BARCT review and implementation schedule for facilities in CARB's Cap-and-Trade Program
 - District adopted schedule in December 2018
 - 109 facilities in San Joaquin Valley subject to expedited BARCT review
 - 19 rules already found to meet BARCT
 - 13 rules scheduled for additional review and rulemaking in 2020-2022 timeframe as necessary

Expedited BARCT Implementation Schedule

Rule	Title	BARCT Determination Schedule	BARCT Rulemaking Schedule (if necessary)
4454	Refinery Process Unit Turnaround	2019	2020
4641	Cutback, Slow Cure, And Emulsified Asphalt, Paving And Maintenance Operations	2019	2020
4104	Reduction of Animal Matter	2019	2020
4409	Components at Light Crude Oil Production Facilities, Natural Gas Production Facilities, and Natural Gas Processing Facilities	2019	2020
4455	Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants	2019	2020
4702	Internal Combustion Engines (VOC only)	2020	2020

Expedited BARCT Implementation Schedule

Rule	Title	BARCT Determination Schedule	BARCT Rulemaking Schedule (if necessary)
4623	Storage of Organic Liquids	2020	2021
4694	Wine Fermentation and Storage Tanks	2020	2021
4624	Transfer of Organic Liquid	2020	2021
4603	Surface Coating of Metal Parts and Products, Plastic Parts and Products, and Pleasure Crafts	2020	2021
4601	Architectural Coatings	2020	2021
4401	Steam-Enhanced Crude Oil Production Wells	2021	2022

Expedited BARCT Implementation Schedule

Rule	Title	BARCT Determination Schedule	BARCT Rulemaking Schedule (if necessary)
4566	Organic Material Composting Operations	2021	2022
4625	Wastewater Separators	2021	2022
4621	Gasoline Transfer Into Stationary Storage Containers, Delivery Vessels, and Bulk Plant	2021	2022
4402	Crude Oil Production Sumps	2021	2022

District Rule 4454

- District Rule 4454 applies to the following source categories
 - Degassing a refinery vessel (and associated piping) containing VOCs that is pressurized to 5 psig or greater
- Benchmarks Evaluated
 - BAAQMD Regulation 8 Rule 12
 - SCAQMD Rule 1123
 - District Permit Requirements
- Conclusion
 - BARCT analysis determined that potential enhanced control options would only provide limited opportunity for emission reductions (0.15 tons/year of VOC) and were not cost-effective
 - The existing requirements of SJVAPCD Rule 4454 satisfies BARCT

District Rule 4641

- District Rule 4641 applies to the following source categories
 - The manufacture and use of cutback asphalt, slow cure asphalt and emulsified asphalt for paving and maintenance operations
- Benchmarks Evaluated
 - BAAQMD Regulation 8 Rule 15
 - SCAQMD Rule 1108
 - SCAQMD Rule 1108.1
 - District Permit Requirements
- Conclusion
 - No federal, state, or other air district rules more stringent than Rule 4641
 - BARCT analysis determined that there are actually no permitted emissions units subject to Rule 4641 that have emission control technologies more effective than the rule
 - The existing requirements of SJVAPCD Rule 4641 satisfies BARCT

District Rule 4104

- District Rule 4104 applies to the following source categories
 - Source operations using any heated process, including rendering, cooking, drying, dehydration, digesting, evaporating, and protein concentration for the processing of animal matter
- Benchmarks Evaluated
 - SCAQMD Rule 472
 - SMAQMD Rule 410
 - VCAPCD Rule 58
 - MBARD Rule 414
 - SDCAPCD Rule 64
 - District Permit Requirements
- Conclusion
 - BARCT analysis determined that potential enhanced control options would only provide limited opportunity for emission reductions (0.5 tons/year of VOC), would result in increased NOX emissions being formed as thermal NOX, and were not cost-effective given the significant implementation costs
 - The existing requirements of SJVAPCD Rule 4104 satisfies BARCT

District Rule 4409

- District Rule 4409 applies to the following source categories
 - Components containing or contacting VOC streams at light crude oil production facilities, natural gas production facilities, and natural gas processing facilities
- Benchmarks Evaluated
 - BAAQMD Regulation 8 Rule 18
 - SCAQMD Rule 1173
 - VCAPCD Rule 74.10
 - CARB Subarticle 13
 - 40 CFR 60 Subpart 0000a
 - EPA 2016 CTG for the Oil and Natural Gas Industry (EPA-453/B-16-001)
 - District Permit Requirements
- Conclusion
 - Requirements in District permits and other regulations have more stringent leak detection and repair thresholds for certain categories subject to Rule 4409
 - While District Rule 4409 has required the implementation of stringent LDAR programs that have resulted in significant reductions in VOC emissions, the District will begin a rule making process in 2020 to explore opportunities to enhance the stringency of the rule and ensure the continued implementation of BARCT

District Rule 4455

- District Rule 4455 applies to the following source categories
 - Components containing or contacting VOC at petroleum refineries, gas liquids processing facilities, and chemical plants
- Benchmarks Evaluated
 - BAAQMD Regulation 8 Rule 18
 - SCAQMD Rule 1173
 - SMAQMD Rule 443
 - VCAPCD Rule 74.7
 - 40 CFR 60 Subpart GGGa
 - District Permit Requirements
- Conclusion
 - Requirements in District permits and other regulations have more stringent leak detection and repair thresholds for certain categories subject to Rule 4455
 - While District Rule 4455 has required the implementation of stringent LDAR programs that have resulted in significant reductions in VOC emissions, the District will begin a rule making process in 2020 to explore opportunities to enhance the stringency of the rule and ensure the continued implementation of BARCT

District Rule 4623

- District Rule 4623 applies to the following source categories
 - Any tank with a capacity of 1,100 gallons or greater in which any organic liquid is placed, held, or stored
- Benchmarks Evaluated
 - BAAQMD Regulation 8 Rule 5
 - BAAQMD Regulation 8 Rule 18
 - SCAQMD Rule 463
 - SCAQMD Rule 1173
 - VCAPCD Rule 71.2
 - VCAPCD Rule 74.10
 - SMAQMD Rule 446
 - CARB Subarticle 13
 - 40 CFR 60 Subpart K, Ka, Kb,
 - 40 CFR 63 Subpart BBBB
 - EPA 2016 CTG for the Oil and Gas Industry (EPA-453/B-16-001)
 - District Permit Requirements
- Conclusion
 - Requirements in District permits and other regulations have more stringent leak detection and repair thresholds for certain categories subject to Rule 4623
 - While District Rule 4623 has required the implementation of stringent LDAR programs that have resulted in significant reductions in VOC emissions, the District will begin a rule making process in 2020 to explore opportunities to enhance the stringency of the rule and ensure the continued implementation of BARCT

District Rule 4624

- District Rule 4624 applies to the following source categories
 - Any organic liquid transfer facilities as defined in the rule
- Benchmarks Evaluated
 - BAAQMD Regulation 8 Rule 6
 - BAAQMD Regulation 8 Rule 18
 - BAAQMD Regulation 8 Rule 33
 - SCAQMD Rule 462
 - SCAQMD Rule 1173
 - VCAPCD Rule 71.3
 - VCAPCD Rule 74.10
 - SMAQMD Rule 447
 - CARB Subarticle 13
 - 40 CFR 60 Subpart XX
 - 40 CFR 63 Subpart BBBB, EEEE
 - EPA 2016 CTG for the Oil and Gas Industry (EPA-453/B-16-001)
 - District Permit Requirements
- Conclusion
 - Requirements in District permits and other regulations have more stringent leak detection and repair thresholds for certain categories subject to Rule 4624
 - While District Rule 4624 has required the implementation of stringent LDAR programs that have resulted in significant reductions in VOC emissions, the District will begin a rule making process in 2020 to explore opportunities to enhance the stringency of the rule and ensure the continued implementation of BARCT

District Rule 4401

- District Rule 4401 applies to the following source categories
 - All steam-enhanced crude oil production wells and any associated VOC collection and control systems
- Benchmarks Evaluated
 - BAAQMD Regulation 8 Rule 18
 - SCAQMD Rule 1148
 - SCAQMD Rule 1173
 - VCAPCD Rule 74.10
 - CARB Subarticle 13
 - 40 CFR 60 Subpart 00000a
 - EPA 2016 CTG for the Oil and Gas Industry (EPA-453/B-16-001)
 - District Permit Requirements
- Conclusion
 - Requirements in District permits and other regulations have more stringent leak detection and repair thresholds for certain categories subject to Rule 4401
 - While District Rule 4401 has required the implementation of stringent LDAR programs that have resulted in significant reductions in VOC emissions, the District will begin a rule making process in 2020 to explore opportunities to enhance the stringency of the rule and ensure the continued implementation of BARCT

Status of BARCT Implementation Schedule

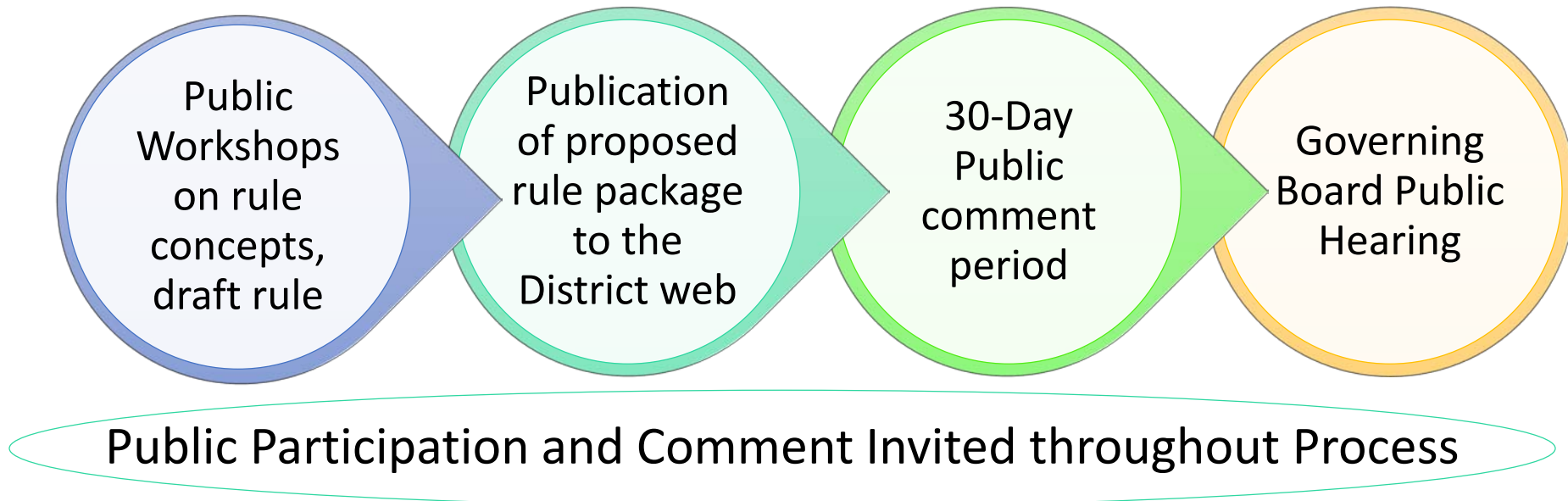
Rule	Title	BARCT Status
4454	<i>Refinery Process Unit Turnaround</i>	<i>Meets BARCT</i>
4641	<i>Cutback, Slow Cure, And Emulsified Asphalt, Paving And Maintenance Operations</i>	<i>Meets BARCT</i>
4104	<i>Reduction of Animal Matter</i>	<i>Meets BARCT</i>
4409	Components at Light Crude Oil Production Facilities, Natural Gas Production Facilities, and Natural Gas Processing Facilities	Combined rule development public process to evaluate/implement additional BARCT requirements commencing 2020 - expediting the rulemaking efforts for three of the five rules (Rules 4623, 4624, and 4401) to streamline assessment
4455	Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants	
4623	Storage of Organic Liquids	
4624	Transfer of Organic Liquids	
4401	Steam-Enhanced Crude Oil Production Wells	

Next Step for BARCT Implementation Schedule

Rule	Title	BARCT Status
4702	Internal Combustion Engines (VOC only)	BARCT evaluation in progress and scheduled for 2020 completion
4694	Wine Fermentation and Storage Tanks	BARCT evaluation in progress and scheduled for 2020 completion
4603	Surface Coating of Metal Parts and Products, Plastic Parts and Products, and Pleasure Crafts	BARCT evaluation in progress and scheduled for 2020 completion
4601	Architectural Coatings	BARCT evaluation in progress and scheduled for 2020 completion
4566	Organic Material Composting Operations	BARCT evaluation scheduled for 2021 completion
4625	Wastewater Separators	BARCT evaluation scheduled for 2021 completion
4621	Gasoline Transfer Into Stationary Storage Containers, Delivery Vessels, and Bulk Plant	BARCT evaluation scheduled for 2021 completion
4402	Crude Oil Production Sumps	BARCT evaluation scheduled for 2021 completion

District Rule Making Process

- District rules developed through transparent public process, with emphasis placed on providing opportunities for public engagement and feedback through workshops and comment periods
- Updates provided to Governing Board, Citizens Advisory Committee and Environmental Justice Advisory Group
- Evening workshops held, interpretation services available



Public Comments

Attendees via Zoom

Please “raise your hand”
for comments and questions

Comments via email

webcast@valleyair.org

(Please state your name and affiliation)

More information available on District’s AB 617 website

<http://community.valleyair.org/>

Or call for more information: (559) 230-6000