

Rule 1148 Series Requirements for Oil and Gas Wells



Working Group Meeting No. 1 April 14, 2022 – 10 am

Zoom URL: https://scaqmd.zoom.us/j/95047775854

Dial In: 1 669 900 6833

Webinar ID: 950 4777 5854 (applies to all)

Agenda

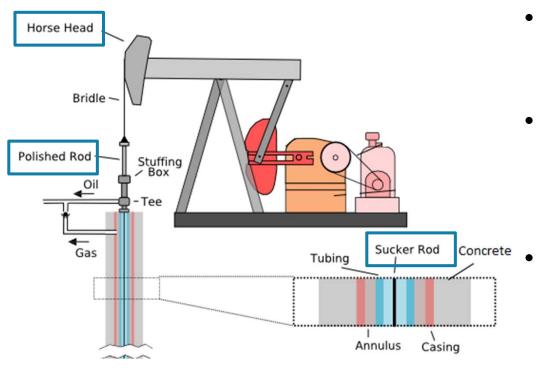
Background & Rule 1148 Series

Community Concerns

Rule Development Process and Next Steps

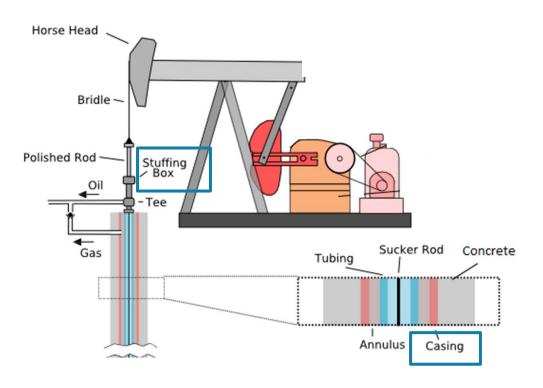


Oil Wells – Pumpjack



- An oil well is a hole dug into the ground to primarily pump oil and natural gas
- A pumpjack, also known as a horsehead pump, is used to draw liquid and gas from the ground to the surface
 - A polished rod moves in and out of the tubing without fluid escaping and is connected to sucker rods which run through the tubing

Oil Wells – Casing and Stuffing Box

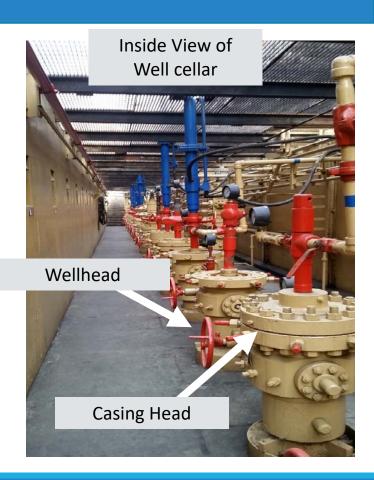


- Well casing is lining that is inserted between edge of well and the well itself for structural support
- Stuffing Box is packing gland or "box" that holds packing material around moving pump rod to reduce escape of gas or liquid
- Horseheads are primarily driven by an electric motor

Oil Wells – Well Cellar and Wellhead



- Well cellar a lined or unlined containment surrounding one or more oil wells
- Wellhead an assembly of valves mounted to the casing head of an oil well
- Casing head a metal flange welded or screwed onto the top of the casing and forms part of the wellhead system



Oil Wells - Oil and Gas Handling

- Oil pumped to holding tanks for water/oil separation
- Gas either routed to a flare or recovered for other uses
 - Gas cleaned up removing impurities and sold to Gas Company
 - Gas used in turbines for electrical production







South Coast AQMD Rule 1148 Series

Rules adopted to regulate oil field production sites:

Rule 1148 – Thermally Enhanced Oil Recovery Wells

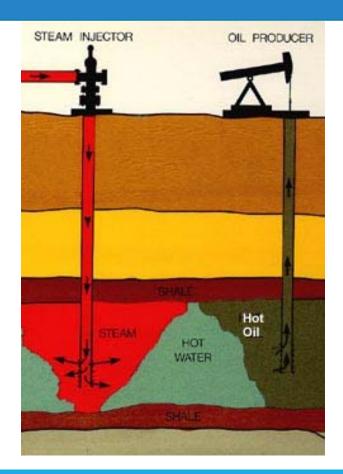
Rule 1148.1 – Oil and Gas Production Wells

Rule 1148.2 – Notification and Reporting Requirements for Oil and Gas Wells and Chemical Suppliers



Rule 1148 Requirements

- Adopted on November 5, 1982
- Established limits for VOC emissions on steam driven wells
- Steam driven wells combine oil production and steam injection wells
- Includes provisions if steam driven wells are connected to a vapor control system



Rule 1148.1 Requirements

Last amended on September 4, 2015

 Established to reduce VOC and toxic emissions from wellheads, well cellars, and handling of produced gas

 Includes Odor Mitigation Plan requirement if following thresholds are met or exceeded

Notice of Violation for odor nuisance occurring on 2 or more days

 3 Confirmed Odor Events within previous 6 months



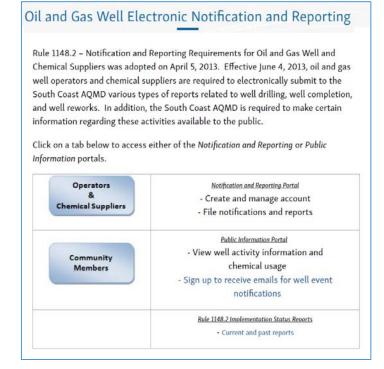
Rule 1148.2 Requirements



- Last amended September 4, 2015
- Established informational requirements for oil or gas wells
- Notification when conducting well drilling, well completion, or well reworks
- Includes reporting requirements for operators and chemical suppliers to disclose trade secret and non-trade secret chemicals used

Rule 1148.2 Requirements (continued)

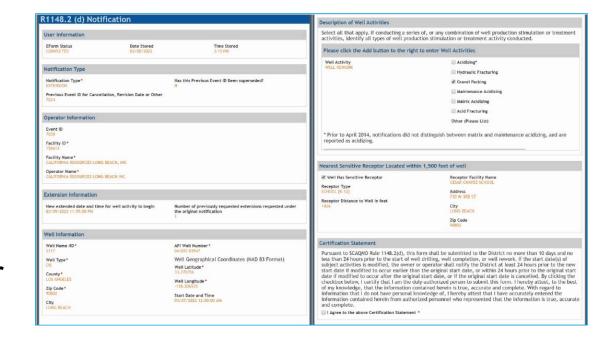
- Notification to no less than 48 hours prior to start of drilling
- Allows up to five 24-hour extensions when start date and time is anticipated to occur after the originally projected start date and time
- Disaggregated of trade name product from chemical ingredients within the product
- Required reporting mass of each chemical ingredient supplied to the operator in order to reduce trade secret claims



Rule 1148.2 Notification website: http://www.aqmd.gov/home/rules-compliance/compliance/1148-2

Rule 1148.2 Notifications

- Notifications available to view online
- Includes Operator and Well Information
- Description of Well Activities
- Nearest Sensitive Receptor within 1,500 feet of well



Rule 1148.2 Notification website: http://www.aqmd.gov/home/rules-compliance/compliance/1148-2



Assembly Bill 617



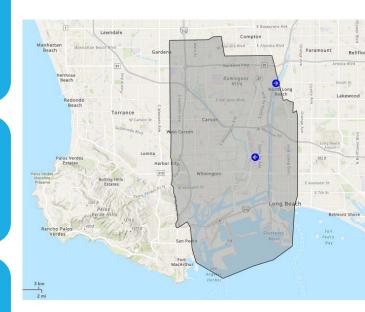
South LA

Requires air districts to create Community Emissions Reduction Plans (CERPs) for designated communities

Requires strategies to reduce toxic air contaminants and criteria air pollutants in disadvantaged communities

Two Communities Selected

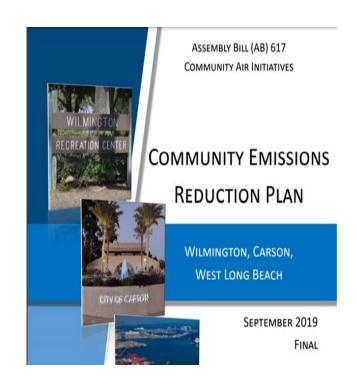
- * South Los Angeles (SLA)
- * Wilmington, Carson, & West Long Beach (WCWLB)



Wilmington, Carson and West Long Beach

AB617 and CERP

- AB617 Community Steering Committee (CSC)
 Meetings held in South Los Angeles (SLA) and
 Wilmington, Carson, and West Long Beach
 (WCWLB) areas
- Communities provided input to address local concerns
- WCWLB CERP was adopted in 2019 and the SLA CERP is currently in development
- Both WCWLB and SLA identified oil and gas production emissions as an area of concern



WCWLB CERP Regarding R1148 Series

Chapter 5 - Actions
to Reduce
Community Air
Pollution listed 4
priorities regarding
oil drilling &
production:

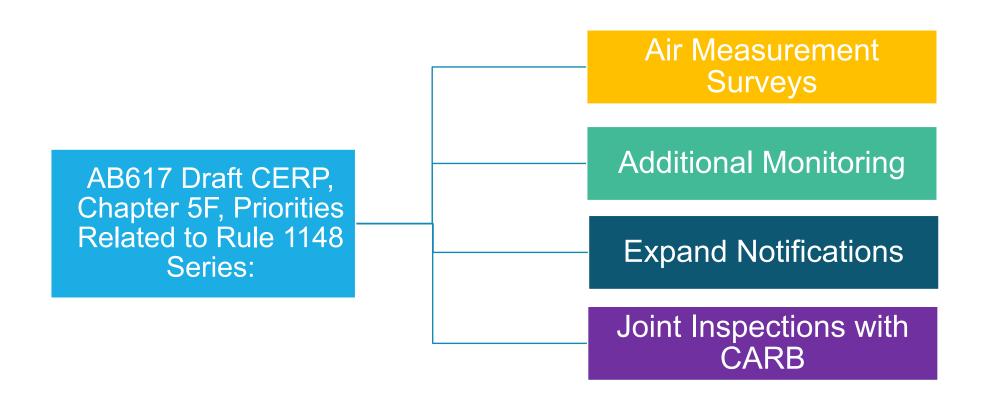
Focused near facility air measurements & inspections to address leaks & odors from oil drilling & production

Improved public outreach & notifications

Additional requirements for oil production sites to submit annual reports to develop an accurate inventory of emissions & chemicals used

Require zero emission technology at drilling sites

SLA Draft CERP Regarding R1148 Series



Summary of Community Concerns

WCWLB Concerns	Common Concerns	SLA Concerns
Requests for Annual Emission Reports	Air Measurements, Inspections, & Surveys	Additional Monitoring
Zero Emission Technology at Drilling Sites	Improved Public Outreach & Expand Notifications	Joint Inspections with CARB

Monitoring, Air Measurements, Surveys, & Inspections



- Evaluate feasibility of having additional/continuous monitoring at or near facilities
- Evaluate conducting air measurement surveys, including with mobile and/or stationary equipment
- Inspections already performed by AQMD Inspectors; will evaluate conducting joint inspections with CARB

Annual Reports, Improved Public Outreach, & Expanding Notifications

- Evaluate requests for annual emission reports
- Improved public outreach such as having website on signage outside facilities
- Evaluate amending Rule 1148.2 for notification expansion to include injection wells, drilling/work-over rig operations, and requirements for using odorants and chemicals



Zero Emission Technology at Drilling Sites



- Evaluate machinery and equipment normally used at drilling sites
- Review feasibility of electrifying diesel drilling and work-over rigs including access to electricity
- Examine availability and costs of replacements



Rule Development Process

Information Gathering – Meet with Stakeholders



Define Rule Objective and Scope

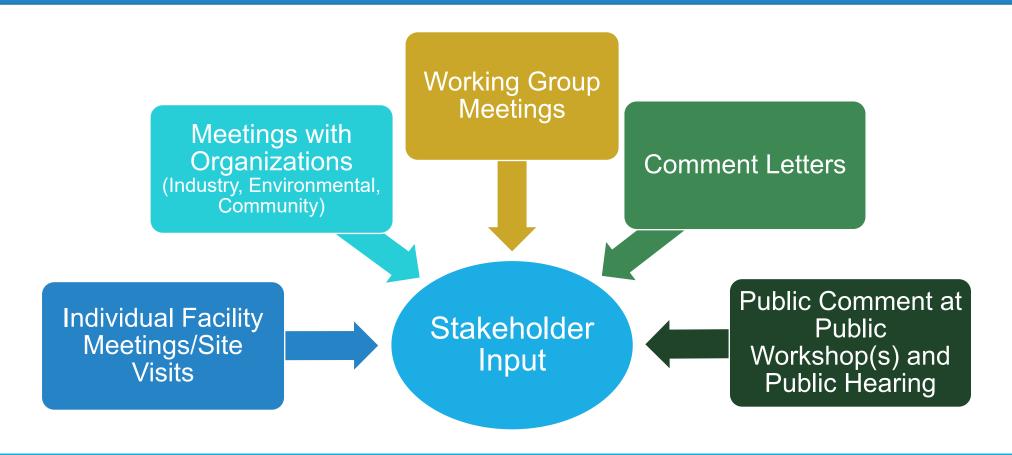


Develop Rule Concepts

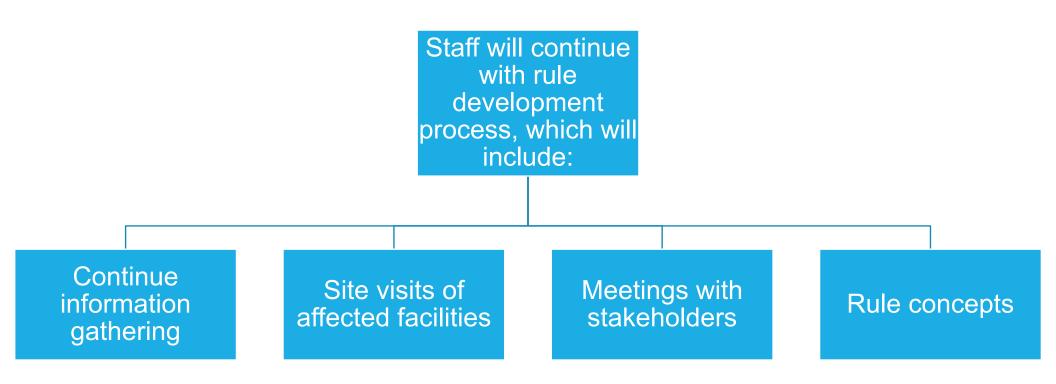


Draft Proposed Rule Language

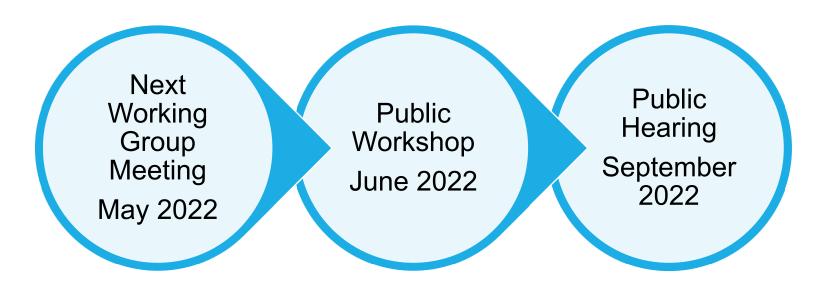
Stakeholder Input



Next Steps



Proposed Rule Schedule for PAR 1148.2



PAR 1148 and 1148.1 to be amended in 2023

Staff Contacts

The following South Coast AQMD staff is available to assist you with any questions or comments



Jose Enriquez
Air Quality Specialist
(909) 396-2640
jenriquez1@aqmd.gov

Rodolfo Chacon Program Supervisor (909) 396-2726 rchacon@aqmd.gov

Michael Morris
Planning and Rules Manager
(909) 396-3282
mmorris@aqmd.gov