

Communication from Public

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Council File No: 17-0447

Comments for Public Posting: CIPA Response Letter to LA EE Committee Setback Report.

OCTOBER 10, 2019



California Independent Petroleum Association

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October 10, 2019

Councilwoman Nury Martinez, President Pro-Tempore
Chairwoman, Los Angeles City Council Committee on Energy, Climate Change and
Environmental Justice
City of Los Angeles
200 North Spring Street, Suite 470
Los Angeles, CA 90012

**RE: California Independent Petroleum Association Comment Letter on “A Report on
Council File 17-0447 – Land Use Codes/Oil and Gas Development/Impact on Residential
Health and Safety/Code Change Proposals” by Uduak-Joe Ntuk, Petroleum Administrator
(July 25, 2019)**

Dear Councilwoman Martinez:

We appreciate the opportunity to provide feedback on the Petroleum Administrator’s recent report. Through this submission we aim to help inform the work of the City Council’s Committee on Energy, Climate Change, and Environmental Justice.

Local oil and gas producers are proud to employ thousands of highly trained and well-paid residents who safely and responsibly operate critical energy infrastructure under the world’s most stringent public health and environmental standards. Our region’s oil and natural gas producers deliver the energy necessary to power our homes and businesses, fuel our transportation, power our healthcare services and create thousands of products that shape our modern lives. The affordability and reliability of energy supplies and petroleum products are critical to the future of our city and the lives of everyday Angelenos.

The increased setbacks and additional restrictions proposed in the Petroleum Administrator’s report will devastate the vitality of the City of Los Angeles by: eliminating thousands of high-paying, middle-class jobs; costing the City tens of billions of dollars; relinquishing tens of millions of dollars in local tax revenues; raising the cost of living for all Angelenos; worsening the housing and homelessness crisis; and threatening the economy and the livelihoods of Angelenos by increasing dependence on unreliable foreign sources of oil.

Increased setbacks and restrictions would not make an appreciable difference on public health in the City of Los Angeles. As the Petroleum Administrator’s report summarizes, the scientific

record is unambiguous: there is no evidence linking oil and gas production activities in Los Angeles with negative health effects.

Instead of pursuing setback policies that threaten the livelihoods of thousands of working families and the businesses that employ them for no appreciable benefit, we urge you to pursue an energy strategy that increases our local production from diverse traditional and renewable resources by local workers to provide affordable, reliable energy supplies to Los Angeles residents and businesses.

As the Committee considers measures that could have far-reaching impacts on critical oil and gas operations within the City, as well as jobs, tax revenues and affordability of housing, transportation, energy and everyday products for all Angelenos, especially those living on the brink of poverty, we submit the following facts for your consideration.

- 1) The scientific record demonstrates the lack of evidence correlating Los Angeles oil and gas operations to negative health impacts – a fact confirmed by the Petroleum Administrator’s report and several local studies. There is no scientific rationale supporting the need for increased setbacks.**

Despite the recurring claims of some activist organizations, the scientific record is clear: there is no substantial evidence correlating Los Angeles oil and gas operations to negative health impacts.

As the Petroleum Administrator’s report states:

“There is a lack of empirical evidence correlating oil and gas operations within the City of Los Angeles to widespread negative health impacts. The lack of evidence of public health impacts from oil and natural gas operations has been demonstrated locally in multiple studies by the Los Angeles County Department of Public Health, the Los Angeles County Oil & Gas Strike Team, the South Coast Air Quality Management District and the comprehensive Kern County Environmental Impact Report and Health Risk Assessment.”

In its review and discussion of the scientific record, the Petroleum Administrator’s report explicitly dismisses “any public panic or belief in a widespread public health crisis.”

In short, there is no scientific health basis for increased setbacks or additional restrictions on oil and gas operations in the City of Los Angeles.

- 2) Implementing unnecessary setbacks would be staggeringly expensive for the City of Los Angeles, with liability from the future value of petroleum reserves estimated to be \$97.6 billion and other costs rising into the hundreds of millions.**

The Petroleum Administrator’s report also demonstrates how expensive implementing setbacks could be for the City of Los Angeles. In Subsection C, “Setback Implementation Potential Fiscal Impact to the City” beginning on page 125 of his report, the Petroleum Administrator outlines the following costs of implementing additional setbacks:

Value of Future Crude Oil Production: \$97.6 billion

- “The projected future value of the remaining oil reserves belonging to mineral rights owners in the City calculated for a 20-year period at 6% interest rate is \$97.6 billion.”

Land Value: \$100 million

- “In an imminent [sic] domain proceeding or litigation over the deprivation a surface owner’s property rights, then the land owner would need to be compensated at a fair market price. The estimated current surface land value of the drill sites in the City is \$100 million.”

Well Abandonment: \$321 million

- “Oil and gas well abandonments must meet standards required by CA DOGGR to be abandoned when operators end operations ... In a property taking’s litigation, [well abandonment] costs would be an item of dispute or if a company declared bankruptcy the City would need to identify the funding to abandon the wells. Total Well Abandonment Cost Estimate - \$321 million”

Environmental Remediation: \$150 million

- “The City of Los Angeles has twenty-four (24) acres of active oil and gas drill sites that will eventually need to be abandoned and remediated.”

Litigation: Starting at \$1 million per year

- “The City Attorney’s Office agrees that the City can expect to spend [at least \$1 million per year] to defend the implementation of a setback distance within the City.”
- In addition to the City’s cost and exposure to litigation under the U.S. and California Constitutions for taking property rights of owners and operators of surface and minerals, imposing restrictions on local oil and gas operations would expose the City to other types of litigation.
- For example, the California Attorney General’s office has noted in other jurisdictions that the state’s comprehensive regulation of all aspects of oil and gas production may preempt local restrictions.
- In addition, the City must analyze the impacts of expanding setbacks or additional restrictions on local oil and gas production under the California Environmental Quality Act, such as the increase in supertanker oil imports into the Port of Los Angeles from Alaska and foreign sources like Saudi Arabia and Iraq.

3) The City has applied reasonable setbacks for decades, and an additional and unnecessary increase in setbacks increases the cost of living and jeopardizes quality of life by establishing large, reciprocal “no build” zones.

Oil and natural gas production have been central to the City of Los Angeles’ growth, employment and development for more than a century. Los Angeles has maintained setbacks between oil and natural gas operations and surrounding land uses for decades. It is also important to recognize that oil and natural gas wells and facilities did not move into dense residential areas across Los Angeles, but rather housing was built around these operations as a result of land use decisions by the City.

Notably, health-based setbacks are reciprocal, meaning that a setback that would prevent a new oil and gas drill site from being located near an existing building would also impose a “no-build zone” around existing oil and natural gas wells. This would have an enormous impact on the cost of living and quality of life in a high-density region like Los Angeles, which is already facing a deepening housing crisis. To illustrate, had Los Angeles imposed a 2,500-foot setback on current oil and natural gas operations, more than 1.2 million housing units, 170 educational institutions and 7 hospitals would never have been built.

4) The oil and gas industry makes significant economic contributions to the City of Los Angeles, providing thousands of desirable middle-class jobs, hundreds of millions in local tax revenues and payments to royalty and mineral rights owners.

According to an analysis conducted by the Institute for Applied Economics at the Los Angeles County Economic Development Corporation in October 2019, the oil and gas production industry in Los Angeles County supports more than 14,000 jobs and \$620 million in state and local tax revenues. Implementation of expanded setbacks would have severe economic consequences for the City of Los Angeles. The analysis found that 2,920 jobs, \$640 million in annual economic output, and \$64 million in annual tax revenues would be lost by the city under a 500-foot setback, the shortest setback scenario tested. With a 2,500-foot setback, the City of Los Angeles would lose 3,670 jobs, \$804 million in annual economic output, and \$96 million in annual tax revenues. Furthermore, the lost potential land development in the City of Los Angeles could range from \$128 million at the 500 feet setback, and up to \$15.5 billion under the largest setback scenario of 2,500 feet.

Nearly 50% of the oil and gas industry workforce is ethnically diverse, and the industry provides jobs for Angelenos across the educational spectrum. The industry is an important source of blue-collar jobs, offsetting a 40% decline in manufacturing jobs across Los Angeles County since 2000. The industry employs workers from all levels of education and skills, including hundreds of union workers from the Los Angeles and Orange County Building and Construction Trades and the United Steelworkers. The average annual pay for oil workers in Los Angeles is \$108,000 – nearly double the private-sector average in the county.

Tax revenues from oil and gas production fund vital community services like K-12 schools, public safety, and health or social service programs. Thanks to unique production-sharing contracts in Long Beach and tax revenues, the oil and natural gas industry funds the salaries and benefits of hundreds of state and local government workers in our region. Additionally, royalty payments are crucial to thousands of royalty owners throughout Los Angeles who live on limited incomes and use royalty payments to supplement their retirement. Royalty owners, including the City of Los Angeles, received \$18 million in payments in 2019.

The Petroleum Administrator’s report suggests on page 120 that the city may “offset some of the anticipated employment losses ... through job creation related to remediation activities at oil and gas well sites that are shut down.” However, temporary, one-time remediation jobs will not replace the thousands of permanent, high-paying careers that would be destroyed by increased setbacks.

5) Expansive regulations and mitigation measures already exist to ensure public health and the environment are not adversely affected by oil and gas operations, and these measures are working.

Government agencies at every level – local, regional, state, and federal – regulate every step of the oil production process as outlined in Section 2 (page 2-18) of the Petroleum Administrator's report. In sum, more than 25 different government agencies have oversight and authority over oil production in our region.

Los Angeles oil and natural gas are produced under the most rigorous environmental regulations and health protections in the world, covering everything from air quality and noise, traffic and transportation, to lighting and landscape. In fact, Los Angeles producers operate under the most stringent emission regulations in the nation established by the California Air Resources Board and the South Coast Air Quality Management District to improve air quality. Air permits for California producers follow leading emissions controls including vapor recovery on tanks and vessels, vapor control on compressors, use of instrument air on pneumatic devices and leak detection and repair on components not required by federal regulations. Attached is a comprehensive summary on California oil and gas regulatory programs focused on workers and communities.

Furthermore, the Petroleum Administrator's report recognizes that significant measures are already in place to protect public health and the environment, and explicitly recommends that the City of Los Angeles "should not establish setbacks without studying the results of the ongoing local oil and gas monitoring programs from California Air Resources Board Study of Neighborhood Air Near Petroleum Sources (SNAPS), Assembly Bill 617, and MATES V." The report recommends the City instruct the Petroleum Administrator and other relevant City staff to participate in the SNAPS and AB 617 studies and incorporate findings into the development of a citywide air monitoring and community notification program.

Bottom line: the existing regulations and mitigations are working in Los Angeles.

6) California already depends heavily on unreliable sources of foreign oil. Decreasing production in Los Angeles will put our economy and the lives of everyday Angelenos at even greater risk.

Shutting down oil operations in Los Angeles would mean more foreign oil imports and more money flowing to oil and gas producers that don't hire Californians, pay California taxes, or care about our rigorous environmental regulations and health protections.

Local producers supply less than 30% of the oil and gas Californians use every day. That means more than 70% of the oil we use is imported from other sources, mainly by oil tanker from foreign countries that do not have the same level of legal standards for human rights and environmental protections as California. Accordingly, increasing the city's reliance on imports by eliminating or significantly reducing locally regulated production operations is in essence counter to the City Council's leadership and advocacy related to these policy topics.

Furthermore, shutting down existing oil and gas production puts our economy and the lives of everyday Angelenos at risk by increasing our dependence on unreliable foreign oil. Recently, our state has felt gas price shocks due to a number of factors, including disruptions of oil and gas production in the global marketplace.

The Wall Street Journal Editorial Board recently commented on the unique risk California carries by not producing more of the oil and gas it uses every day. The Journal wrote that gas prices are surging in California, but not elsewhere, due to policies that have made the state more

reliant on foreign oil. The September 30, 2019 editorial noted that California's gas prices are now nearly \$1.40 higher per gallon than the U.S. average.

As volatile and escalating conflicts around the world continue to impact global markets, now is not the time to be curtailing oil and gas production in-state. The record is clear: if California wants a safe, reliable, and affordable source of energy, it must produce more – not less – of the oil and gas it uses every day.

7) Local oil and gas production are essential to a balanced, resilient and sustainable energy solution.

Oil and natural gas are necessary beyond the role of a preeminent fuel source. Petroleum compensates for the intermittency of renewable energy and serves a critical role in building materials, medical devices, zero-emission vehicles, renewable energy components and thousands of products essential to modern society. The City of Los Angeles will continue to depend on petroleum to support its energy grid, infrastructure and the lifestyle of all Angelenos. Local oil and natural gas producers lead the way to a new energy future for all by investing in cutting edge technologies that keep Los Angeles and California on the forefront of global environmental standards. In fact, Los Angeles oil and natural gas producers are collaborating with renewable developers to lower the carbon intensity of energy production – a tangible step in advancing broader climate goals. These efforts include a carbon capture and storage project, a solar steam and electricity plant to power oilfield operations, a cogeneration plant turning biomass waste into steam and electricity, and ongoing efforts to develop new breakthrough technologies to further diversify our local energy resources.

8) A new barrel tax would have a net negative effect on government revenues and harm the Los Angeles consumer with higher prices for gas, food, and other essential goods.

The Petroleum Administrator's report mentions the potential for the Council to "explore establishing a barrel tax to provide revenue to support enhanced oil and gas oversight."

A barrel or "severance" tax would not accomplish this goal and instead could lead to serious economic challenges. Currently, a typical barrel of oil produced in California is taxed at a rate that is on par with the other seven top producing states in the United States. A barrel tax would make California oil and natural gas producers the most heavily taxed in the nation by a considerable margin, stifling industry investment, production, and jobs.

According to a July 2019 analysis by Capitol Matrix Consulting, a 10% severance tax would result in a significant net decrease in state and local tax revenues due to lost investment and production. Under current law, the oil and gas production industry in California is expected to contribute more than \$2.6 billion toward state and local revenues in 2030. With a severance tax, the industry would contribute just \$1.4 billion.

Because California's oil and refined product markets are isolated from the other "lower-48" states, the costs and risks resulting from a severance tax would be borne by California consumers alone in the form of higher prices at the pump for gasoline, diesel and jet fuel. Consumers would also face higher prices for the food and other essential goods made and delivered using petroleum products.

9) The two sections of the Petroleum Administrator's report produced by Physicians, Scientists and Engineers for Healthy Energy (PSE) are seriously flawed.

The Petroleum Administrator retained Physicians, Scientists and Engineers for Healthy Energy (PSE) to conduct research for and produce two sections of its report. The first section is an assessment of chemical use in upstream oil and gas development in the Los Angeles Basin and the City of Los Angeles. The second is a review of peer-reviewed literature focused on public health and oil and gas development.

Both sections produced by PSE are seriously flawed.

PSE's assessment of chemical use in upstream oil and gas development did not evaluate the exposure potential of any of the chemicals in the list. PSE acknowledges that the South Coast Air Quality Management District already collects significant data on chemicals used in oil and gas operations. The reality is that there is far more public information available about chemicals used in individual oil and gas wells in the Los Angeles basin than at entire universities, hospitals and City facilities. PSE created an "estimated hazard metric" (EHM) based on the aggregate amount of a chemical used in oil and gas facilities across the City and the region. The EHM is not a standard approach in risk assessment and is not sufficient for drawing any conclusion about public health. The EHM does not consider how and where the substance is used or the potential, if any, for emissions or public exposure. For example, PSE does not acknowledge that (1) the primary use of these substances at oil and gas operations is inside the wellbore for well maintenance, (2) these same substances are also used by government agencies in drilling and maintaining water supply wells, and (3) existing oil and gas wells and facilities are directly connected to vapor recovery and other emission control systems. These factors are essential to put chemical use at oil and gas operations into perspective, since they significantly limit or eliminate the potential exposure of the public.

PSE's literature review of public health and oil and gas development is equally flawed. Similar to their chemical use evaluation, PSE did not distinguish between "health hazards," "health risks," and "health impacts," nor acknowledge that they are distinctly different concepts requiring specific methodologies. Importantly, PSE did not disclose their methodology for selecting or assessing the quality of studies they reviewed. Rigorous consideration of study quality is essential to a literature review, and sometimes statutorily required by health and environmental agencies such as the U.S. Environmental Protection Agency. Given PSE's lack of an objective and consistent methodology to evaluate and synthesize the papers it selected, the City cannot rely on PSE's review to justify expanding setbacks or imposing additional restrictions on local oil and gas operations.

Conclusion

In summary, the recommended setback distances and additional restrictions would increase the cost of energy for consumers, particularly those struggling to pay the already high cost of housing, child-care, transportation and other core needs. This would threaten the livelihoods of thousands of working families and the businesses that employ them in Los Angeles. There is too much at stake to impose regressive policies that use land use as a weapon that increases hardship in struggling communities. We urge you to instead pursue policies that favor an all of the above energy strategy that preserves thousands of much-needed jobs and sustains Los Angeles' working families and the local economy.

OCTOBER 10, 2019

Each barrel produced in Los Angeles means one less barrel arriving from overseas. Each barrel produced here means stable, well-paying, local jobs. Each barrel produced here means tax revenues used to support essential public services. Each barrel produced here means manageable costs of goods and more affordable prices at the pump. And most importantly, each barrel produced in Los Angeles means another barrel produced under the strictest safety, labor, human rights and environmental standards on earth.

Sincerely,

A handwritten signature in black ink, appearing to read 'Rock Zierman', with a long horizontal stroke extending to the right.

Rock Zierman
Chief Executive Officer
California Independent Petroleum Association

CC: Mayor Eric Garcetti
Council President Herb Wesson
Councilman Paul Krekorian
Councilman Gil Cedillo
Councilman Paul Koretz
Councilman Mitch O'Farrell



SUMMARY OF FEDERAL AND CALIFORNIA OIL AND GAS REGULATORY PROGRAMS FOCUSED ON WORKERS AND COMMUNITIES

Occupational Health, Safety and Industrial Hygiene

PRIMARY REGULATORS



Compressed Air Systems and Equipment

Safe work practices required for the handling, use, storage and transportation of compressed gas equipment and cylinders and air receivers

California Code of Regulations (CCR), Title 8, Chapter 4, Subchapter 7, Group 9, Articles 76-79 – Compressed Gas and Air Equipment

CCR, Title 8, Chapter 4, Subchapter 7, Group 2, Article 7, Section 3304 – Miscellaneous Use of Compressed Cylinder Gas

CCR, Title 8, Chapter 4, subchapter 7, Section 4650 – Storage, Handling, and Use of Cylinders

CCR, Title 8, Chapter 4, Subchapter 7 – General Industry Safety Orders, Group 10, Articles 80 – 88 – Gas Systems for Welding and Cutting

Confined Space Entry

Program required that identifies confined space areas, entry procedures and permit requirements and training

CCR, Title 8, Chapter 4, Subchapter 7, General Industry Safety Orders, Group 16, Article 108, Sections 5156- 5158 - Permit Required Confined Space Entry

CCR, Title 8, Chapter 4, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 7, Section 6528 & 6529 – Confined Spaces

CCR, Title 8, Chapter 4, Subchapter 15 – Petroleum Safety Orders – Refining, Transportation, and Handling, Article 11, Section 6816 – Blinding or isolating of pipe lines and equipment for entry

Contractor Safety

Program required for selection and management of contractors

CCR, Title 8, Subchapter 7 – General Industry Safety Orders – Section 6509 – Contractors

CCR, Title 8 – Section 5006.1 – Mobile Crane and Tower Crane-Operator Qualifications and Certification CCR, Title 8 – Section 5189(h)

Drilling and/or Well Servicing Operations

Standards and safe work practices that apply to equipment and operations used in drilling and well servicing

CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production – Sections 6500 thru 6693

Electrical Safety

Standards and safe work practices required for handling certain electrical equipment, including personal protective equipment (PPE), work permit requirements, isolation and training⁵

CCR, Title 8, Subchapter 5, Electrical Safety Orders, Group 1 - Electrical Safety Orders, Group 1

CCR, Title 8, Subchapter 5, Electrical Safety Orders, Group 2 – High-Voltage Electrical Safety Orders, Group 2

CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 6, Section 6527 – Electrical Equipment

Energy Isolation

Lockout/tagout procedure required to ensure proper isolation of energy sources, including training

CCR, Title 8, - Subchapter 5, Electrical Safety Orders, Group 1, Article 3, Section 2320.5

CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 10, Section 6536 – Opening and Blinding Pipelines and Equipment

CCR, Title 8, Section 3314

CCR, Title 8, Section 5189

Ergonomics

Safe work practices required to prevent repetitive motion injuries or musculoskeletal disorders, including employee awareness training and equipment

CCR, Title 8, Chapter 4, Subchapter 7 – General Industry Safety Orders, Group 15, Article 106, Section 5110 – Repetitive Motion Injuries

Excavation and Trenching

Safe work practices and equipment required for excavation and trenching, including utility clearance, shoring, work permit requirements and training

CCR, Title 8, Subchapter 4, Construction Safety Orders, Article 6, Section 1541 – Excavations California Code of Regulations – Subchapter 2, Section 341 - Permit Requirements

Fall Protection

Safe work practices required for access to aisles, walkways, scaffolds, ladders, and walking and working surfaces procedures, including equipment and training for working at heights of 6’ or greater

CCR, Title 8, Subchapter 7, General Industry Safety Orders, Group 1, Article 4, Sections 3270 - 3280 – Access, Work Space and Work Areas
CCR, Title 8, Subchapter 14 1– Petroleum Safety Orders – Drilling and Production, Article 22, Section 6580 – Safety Belts and Lanyards
CCR, Title 8, Subchapter 4, Construction Safety Orders, Article 24, Sections 1669-1672 – Fall Protection
CCR, Title 8, Subchapter 4, Articles 16-25, Sections 3210-14

Flammable Materials

Safe work practices for use and handling of flammable materials

CCR, Title 8, Subchapter 7, Group 20, Article 135 – Flammable Liquids, Gases and Vapors
CCR, Title 8, Subchapter 14, Petroleum Safety Orders, Article 46 – Liquid Loading and Unloading.

Gas and Vapor Testing

Safe work practices required to identify areas where hazardous gases may be present and establish procedures, including monitoring and training, for worker protection in affected areas

CCR, Title 8, Subchapter 14, - Petroleum Safety Orders – Drilling and Production, Article 8, Section 6531 – Gas and Vapor Testing

Hand and Portable Powered Tools

Safe work practices to ensure testing and inspection of hand and portable power tools and training in their proper use

CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 3, Article 20, Sections 3555 - 3564 – Hand & Portable Powered Tools and Equipment
CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 44, Section 6646 – Miscellaneous Tools and Equipment

Hazard Communication Program

Program required to inform and train employees regarding materials used in the workplace, their potential hazards, proper storage and handling, and other safeguards, including Safety Data Sheets, labels, PPE and emergency response

CCR, Title 8, C.O.S.H. Regulations, Article 5, Section 339 – Hazardous Substance List
CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 16, Article 109 – Hazardous Substances and Processes
CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 16, Article 109, Section 5194 – Control of Hazardous Substances
CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 12, Section 6542 – Hazardous Substances
CCR, Title 22 Sections 12000-14000 (Prop 65)

Hearing Protection

Program required to identify areas and tasks with high noise, including PPE, training and engineering controls as warranted

CCR, Title 8, Chapter 4, Subchapter 7- General Industry Safety Orders, Group 15, Article 105, Sections 5095- 5100 – Control of Noise Exposure

Heat Stress

Safe work practices to provide training and protection from heat illness

CCR, Title 8, Chapter 4, Subchapter 7 – General Industry Safety Orders, Group 15, Article 10, Section 3395 – Heat Illness
CCR, Title 8, Section 1524
CCR, Title 8, Section 3363

Occupational Health, Safety and Industrial Hygiene

Continued

Hot Work

System is required to control workplace hazards associated with hot work, including procedures, safety precautions and training

CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 11, Article 90 – Electric Welding, Cutting & Heating
CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 10 – Gas Systems for Welding and Cutting
CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 8, Section 6531 – Gas and Vapor Testing
CCR, Title 8, Subchapter 14 – Petroleum Safety Orders, Article 6, Section 6521 – Hazardous Areas
CCR, Title 8, Section 1536. Ventilation Requirements for Welding, Brazing, and Cutting
CCR, Title 8 – Section 5189(K) Hot Work Permit

Injury & Illness Prevention Plan

Plan required to prevent injury and illness, including training

CCR, Title 8, Chapter 4, Subchapter 7, Group 1, Article 3203 – Group 1, General Physical Conditions

Injury & Illness Reporting

Occupational injuries and illnesses must be recorded under federal and state regulations

49 CFR Part 191, 192, 195 (DOT reporting)
CCR, Title 8, Chapter 3.2, Subchapter 2, Article 1, Section 340 – Posting Requirements of the Cal-OSHA Notice
CCR, Title 8, Chapter 3.2, Subchapter 2, Article 1, Section 342 – Reporting Work-Connected Injuries
CCR, Title 8, Chapter 7, Subchapter 1, Article 2, Section 14300 – Log and Summary of Occupational Injuries or Illnesses
CCR, Title 8, Chapter 4, Subchapter 7- General Industry Safety Orders, Group 16, Article 109, Section 5189(m)

Lighting

Provide working areas, stairways, aisles, passageways work benches and machines with adequate illumination

CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 2, Article 7, Section 3317 – Illumination

Machine Guarding

Safe work practices required to ensure that equipment is properly guarded and that the machine is operated only when machine guarding is in place

CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production:
– Article 35, Section 6622 – Guarding
– Article 37, Section 6631 – Guarding
– Article 39, Section 6636 – Guarding Sheaves

Material Handling, Storage and Loading

Safe work practices required to prevent injuries and incidents during the handling, loading and storage of materials

CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 47, Section 6655 – General Safety
CCR Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 45, Section 6648 – Storage and Handling of Pipe
CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production – Article 45, Section 6663 – Hoists and Hoisting
CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 16, Article 109, – Hazardous Substances and Processes
CCR, Title 8, Subchapter 7, General Industry Safety Orders, Group 1, Article 6 – Powered Platforms and Equipment
CCR, Title 8, Subchapter 7, General Industry Safety Orders, Group 4, Articles 23 through 27 – General Mobile Equipment and Auxiliaries
CCR, Title 8, Section 344.60 - Licensing of Certifiers of Cranes and Derricks–Requirements
CCR, Title 8, General Industrial Safety Orders, Sections 4884 - 5049 – Cranes and Other Hoisting Equipment
CCR, Title 8, Subchapter 4. Construction Safety Orders, Sections 1635.1 – 1655

Occupational Health, Safety and Industrial Hygiene

Continued

Medical and First Aid

Safe work practices required for providing medical care, first aid and supplies, including training and availability of supplies

CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 2, Article 10, Section 3400 – Medical Services and First Aid

CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 4, Section 6511 & 6512 – First Aid & Medical Services

CCR, Title 8, Subchapter 7 – General Industry Safety Orders Group 16, Article 109, Section 5193 – Bloodborne Pathogens

Personal Protective Equipment (PPE)

Operations must be evaluated and PPE requirements determined, including selection, use, care and employee training

CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 2, Article 10, Sections 3380 - 3390 – Personal Safety Devices and Safeguards

CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 5, Section 6513 – Clothing

Respiratory Protection and Ventilation

Program required to identify work areas or tasks requiring respiratory protection, specify proper selection, use and maintenance of protective equipment, and provide for training, medical evaluations and fit testing

CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 16, Article 107, Section 5141 – Control of Harmful Exposures to Workers

CCR, Title 8, Subchapter 7 - General Industry Safety Orders, Group 16, Article 107, Section 5151 - Control of Hazardous Substances

CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Article 107, Section 5144 – Respiratory Protection

CCR, Title 8, C.O.S.H. Regulations, Article 5, Section 339 – Hazardous Substance List

CCR, Title 8, Subchapter 4, Construction Safety Orders, Article 4, Section 1529 – Asbestos

CCR, Title 8, Section 5208

SCAQMD Rule 1403 – Asbestos emissions from demolition or renovation activities

CCR, Title 8, Subchapter 4 – Construction Safety Orders, Article 4, Section 1532.1 – Lead

Transportation on Public Roads

Federal & state regulations govern the labeling, storage and transportation of hazardous materials

49 CFR Part 172, 173, 178 & 179

California Motor Vehicle Code

Water Supply and Sanitation

Safe work practices including potable water supply and clean and sanitary workplaces, washing facilities and change rooms

CCR, Title 8, Section 1524 – Water Supply

CCR, Title 8, Section 3395

CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Article 9, Sections 3360 - 3367 – Water Supply, Toilet rooms, Sanitation, Change Rooms

Protection of Air Quality

PRIMARY REGULATORS



South Coast
AQMD



New Source Review for Air Permitting

New Source Review permit applications must be submitted to obtain a permit to construct (PTC) and permit to operate (PTO) for all new, modified or relocated equipment

SCAQMD Regulations I-IV
SCAQMD Regulation XIII-XIV
SCAQMD Rule 1401 – Toxic air contaminants for new or modified sources
Federal Clean Air Act

Prevention of Significant Deterioration in Air Permitting

Air permit applications must be screened for PSD applicability, to determine if new emissions from a major new source or major modification of an existing source will not cause or contribute to exceedance of any National Ambient Air Quality Standards

SCAQMD Regulations I-IV SCQAMD Regulation XVII
SCAQMD Rule 1701 – Prevention of Significant Deterioration
SCQMD Rule 1714 – Prevention of Significant Deterioration for Greenhouse Gases Federal Clean Air Act

Clean Air Act Title V Permit and Operating Requirements

Clean Air Act Title V Permits must be obtained from SCAQMD for any major stationary sources – a facility that has the potential to emit any criteria pollutant or hazardous air pollutant at or above specified levels

SCAQMD Regulations I, II, III, IV & XIV
SCAQMD Regulation XX
SCAQMD Regulation XXX
SCAQMD Rule 3001 – Title V Permits
Federal Clean Air Act

Clean Air Act Title III Permits

Clean Air Act Title III Permits must be obtained for sources of hazardous air pollutants (HAP) > 10 tons per year for any one HAP or > 25 tons per year for any combination of HAPs

SCAQMD Regulations I-IV SCAQMD Regulation X
Federal Clean Air Act

State Operating Air Permits

Permits to operate are required from the SCAQMD (Rules 201 and 203) and CARB for applicable stationary and portable sources at operating locations, depending on NOx emissions

SCAQMD Regulations I, II, III, IV & XIV
SCAQMD Rule 201
SCAQMD Rule 203

Air Toxics Hot Spots Act Reporting and Health Risk Assessments

Requires facilities to report use of emission of potentially toxic materials, and perform a health risk assessment

Health & Safety Code Section 44300 - 44394
CCR, Title 17, Section 93300.5 and CARB Emissions Inventory Criteria and Guidelines Report
SCAQMD Rule 1401 – New Source Review of Toxic Air Contaminants
SCAQMD Rule 1402 – Control of Toxic Air Contaminants from Existing Sources

AB 617 Community Air Quality Monitoring

New air monitoring program in disadvantaged communities that authorizes CARB to require fence line monitoring and Best Available Retrofit Control Technology (BARCT) on industrial sources

Health & Safety Code Section 42705.5

Study of Neighborhood Air near Petroleum Sources

New air monitoring program by CARB in the vicinity of oil & gas production facilities

Health & Safety Code Section 42705.5

Emissions Inventory and Reporting

Emissions must be monitored or estimated and reported on an annual or quarterly basis to the SCAQMD under several regulatory programs

SCAQMD Regulations I-IV
SCAQMD Regulations XX
SCAQMD Regulations XXX
SCAQMD Rules 218, 1110.2 and 2012 – Monitoring and reporting emissions for gas engines
SCAQMD Rule 1148.1 – Oil and Gas Production Wells – Inspection and reporting of emissions from well cellars
SCAQMD Rule 1149 – Storage Tank Cleaning and Degassing
SCAQMD Rule 1166 – VOC Emissions from Decontamination of Soil
SCAQMD Rule 1173 and 1176 – Fugitive emissions

Chemical Use Inventory and Operational Reporting on Well Drilling, Completion and Maintenance

Requires notification of drilling, completion and well servicing activities, and submission of chemical usage inventory, reporting of combustion equipment usage and annual emissions estimates associated with drilling and well servicing

SCAQMD Regulation I, II, III, IV
SCAQMD Rule 1148.2

Air Quality Analysis, Modeling, Source Testing, Monitoring & Reporting

- Summary: State and Federal regulations require air quality analysis, modeling, source testing and monitoring and reporting. Prior to permitting new projects, emissions are evaluated using techniques such as engineering data, projected volumes and operating conditions and modeling.
- Source testing is required on combustion sources as described in individual air permits.
- For major sources, continuous emissions monitoring systems may be required for certain criteria pollutants, with quarterly and annual emissions reporting to the SCAQMD.

SCAQMD Regulations I-IV
SCAQMD Rule 109 – Recordkeeping for VOC emissions
SCAQMD Rule 218 – Continuous Emission Monitors
SCAQMD Rule 430 – Identification of notification requirements for equipment breakdown (for non-RECLAIM equipment)
SCAQMD Rule 463 – Storage of Organic Liquids
SCAQMD Rule 1107 – Coating of Metal Parts and Products
SCAQMD Rule 1113 – Architectural Coatings
SCAQMD Rule 1118.1 – Emissions from Non-Refinery Flares
SCAQMD Rule 1148.1 – Oil and Gas Production Wells
SCAQMD Rule 1148.2 – Notification and Reporting for Oil and Gas Wells and Chemical Suppliers
SCAQMD Rule 1149 – Storage Tank Cleaning and Degassing
SCAQMD Rule 1166 – Emissions from Soil Remediation
SCAQMD Rule 1168 – Adhesives and Sealants
SCAQMD Rule 1171 – Solvent Cleaning Operations
SCAQMD Rule 1173 – Control of VOC Leaks and Releases from Components at Petroleum and Chemical Plants
SCAQMD Rule 1176 – VOC Emissions from Wastewater Systems
SCAQMD Rule 2012 – Monitoring, Reporting and Recordkeeping for NOx Emissions

Protection of Air Quality

Continued

Air Emission Controls, Operating Parameters, and Performance Standards

Air permits for stationary sources identify and require the facility to install Maximum Achievable Control Technology (MACT), Best Available Control Technology (BACT) and Lowest Achievable Emission Reduction (LAER) on new, modified or relocated emission sources.

These permits typically require tanks, separators, compressors, pressure vessels and other oil and gas production facilities to be connected to vapor recovery systems and to high-efficiency flares to reduce air emissions

SCAQMD Regulation XIII
SCAQMD Regulation XXX
SCAQMD Rule 201 – Permit to Construct
SCAQMD Rule 203 – Permit to Operate
SCAQMD Rule 463 – Organic Liquid Storage
SCAQMD Rule 1303 – Best Available Control Technology

Leak Detection and Repair

Leak Detection and Repair (LDAR) programs are required from fittings, valves and components, including quarterly inspections, monitoring and reporting

SCAQMD Rule 1173 – Control of VOC Leaks and Releases from Components at Petroleum and Chemical Plants
SCAQMD Rule 1176 – VOC Emissions from Wastewater Systems

Emissions Reporting for Breakdowns or Upset Conditions

Breakdown of permitted air pollution emitting or control equipment must be promptly reported. Repairs must be completed within 24 hours, or the unit shut down. Emissions during an upset must be estimated and reported, and a written report must be submitted to the SCAQMD within 7 days after a breakdown condition.

SCAQMD Regulations I-IV
SCAQMD Rule 430 (Non-RECLAIM permits)
SCAQMD Rule 2004 (RECLAIM permits)

Crude Oil Well Cellars and Tanks

Well cellars must be kept free of hydrocarbon liquids Tanks must be operated vapor tight (<1,000 ppm)
Fixed roof organic liquid storage tanks with a capacity of 471 bbl or greater must be equipped with a 95% efficient vapor collection and control system

SCAQMD Rule 463 – Storage of Organic Liquids
SCAQMD Rule 1148.1 – Oil & Gas Production Wells
SCAQMD Rule 1148.2 – Notification and Reporting for Oil and Gas Wells and Chemical Suppliers
SCAQMD Rule 1176 – VOC Emissions from Wastewater Systems

Internal Combustion Engines in Stationary Equipment

Stationary equipment with internal combustion engines rated 50 hp or greater must obtain an air permit and is subject to additional emission controls and reporting. Equipment with a lower rating does not require a specific permit but must meet certain emission limitations.

SCAQMD Regulations I-IV
SCAQMD Rule 219 – Equipment Not Requiring a Written Permit
SCAQMD Rule 401 – Visible Emissions
SCAQMD Rule 431.1 – Sulfur Content in Gaseous Fuels
SCAQMD Rule 1110.2 – Emissions from Gaseous- and Liquid-Fueled Engines
SCAQMD Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines
SCAQMD Rule 1472 – Requirements for Facilities with Multiple Stationary Emergency Standby Diesel-Fueled
Internal Combustion Engines

Painting and Sandblasting

Painting and sandblasting require a permit by rule, with emission limitations and associated recordkeeping

SCAQMD Regulations I-IV
SCAQMD Rule 109 - Recordkeeping for VOC Emissions SCAQMD Rule 1106
SCAQMD Rule 1107
SCAQMD Rule 1113
SCAQMD Rule 1140

Emission Reduction Credits (ERCs)

Air permit applications for new or modified facilities above certain thresholds must offset additional emissions by acquiring and surrendering Emissions Reduction Credits (ERCs).

SCAQMD Regulation XIII

Methane Emissions

Specific leak detection and repair and retrofitting of equipment is required from certain wells, separators and tank systems, pumps, compressors and associated equipment

CCR, Title 17, Division 3, Chapter 1, Subchapter 10 - Climate Change, Article 4, Sections 96556 - 95677 – Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities

Greenhouse Gas Emissions

Emissions of greenhouse gases above specific thresholds or from major sources of criteria pollutants require federal and state permits. Certain oil & gas facilities are required to reporting greenhouse gas emissions annually and to acquire and surrender greenhouse gas emission allowances or offsets.

CCR, Title 17, Division 3, Chapter 1, Subchapter 10, Article 2 - Mandatory Greenhouse Gas Reporting - Section 95101(b)
CCR Title 17, Division 3, Chapter 1, Subchapter 10 - Climate Change, Article 5, Subarticle 7 - Compliance Requirements for Covered Entities -Section 95850 - 95856

Process Safety Management

PRIMARY REGULATORS



Process Safety Management

Process safety program required for facilities that store quantities of hazardous materials above certain thresholds. Required program elements for the covered process include:

- Process safety information such as safety data sheets, facility technical information
- Process Hazard Analysis
- Training and awareness of employees and contractors
- Pre-Start Up Safety Review
- Mechanical Integrity program for process components
- Hot Work Permit
- Management of Change Incident Investigation
- Emergency Preparedness & Response
- Injury and Illness Prevention Program with inspections of the covered process
- Employee Participation

CCCR, Title 8, Division 1, Chapter 4, Subchapter 8, Group 16, Article 109 – Section 5189 – Cal/OSHA Process Safety Management Regulations

29 CFR Part 1910.119 – Federal OSHA Process Safety Management Regulations

Risk Management Planning

Requires facilities that store quantities of hazardous materials above certain thresholds to prepare and submit a Risk Management Plan, including an emergency response program, employee participation and training, process safety metrics

CCR, Title 19, Division 2, Chapter 4.5, Section 2755.5 - 2785.1– California Accidental Release Prevention Program (OES)

40 CFR Part 68 – U.S. EPA Risk Management Planning Regulations

Mechanical Integrity

PRIMARY REGULATORS



Division of Oil, Gas, and Geothermal Resources



U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration



Maintenance of Controls and Monitoring Systems

Requires inspection and maintenance of control and monitoring systems in facilities handling threshold quantities of hazardous materials

CCR, Title 8, Division 1, Chapter 4, Subchapter 8, Group 16, Article 109 – Section 5189 – Cal/OSHA Process Safety Management Regulations
29 CFR Section 1910.119 – Federal OSHA Process Safety Management Regulations
CCR, Title 19, Division 2, Chapter 4.5, Section 2755.5 - 2785.1– California Accidental Release Prevention Program (OES)
40 CFR Part 68 – U.S. EPA Risk Management Planning Regulations

Maintenance of Alarms

Requires inspection and maintenance of alarm systems

CCR, Title 8, Chapter 4, Subchapter 7 (General Safety Orders), Group 27, Article 165 – Employee Alarm Systems

Maintenance of Detection Systems

Requires calibration, inspection and maintenance of gas detection systems

CCR, Title 8, Subchapter 14, - Petroleum Safety Orders – Drilling and Production, Article 8, Section 6531 – Gas and Vapor Testing

Maintenance of Electrical Systems

Requires inspection and maintenance of electrical systems

CCR, Title 8, Chapter 4, Chapter 4, Subchapter 5 – Electrical Safety Orders

Maintenance of Emergency Shutdown Systems

Requires inspection and maintenance of emergency shutdown systems in facilities handling threshold quantities of hazardous materials

CCR, Title 8, Division 1, Chapter 4, Subchapter 8, Group 16, Article 109 – Section 5189 – Cal/OSHA Process Safety Management Regulations
29 CFR Section 1910.119 – Federal OSHA Process Safety Management Regulations
CCR, Title 19, Division 2, Chapter 4.5, Section 2755.5 - 2785.1– California Accidental Release Prevention Program (OES)
40 CFR Part 68 – U.S. EPA Risk Management Planning Regulations

Maintenance of Fixed Fire Suppression Systems

Requires inspection and maintenance of fixed fire suppression systems

CCR, Title 8, Section 6175 – Fixed Fire Extinguishing Systems
CCR, Title 8, Section 6165 – Standpipe and Hose Systems

Maintenance of Passive Fire Protection

Requires inspection and maintenance of passive fire protection

CCR, Title 8, Subchapter 7, General Industry Safety Orders, Group 27 – Fire Protection
CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 6, Section 6518 - 6527 – Fires and Explosions
CCR, Title 8, Chapter 4, Subchapter 7 (General Safety Orders), Group 1, Article 2, Section 3221 – Fire Prevention Plan
CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders), Article 6, Section 6519 – Fire Protection and Fire Fighting Equipment
California Fire Code, Article 80

Maintenance of Portable Fire Suppression Equipment

Requires inspection and maintenance of portable fire suppression equipment

CCR, Title 8, Chapter 4, Chapter 4, Subchapter 7 (General Safety Orders), Group 1, Article 2, Section 3221 – Fire Prevention Plan
CCR, Title 8, Chapter 4, Chapter 4, Subchapter 7 (General Safety Orders), Group 27, Sections 6150 - 6184 – Fire Protection
CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders), Article 6, Section 6519 - Fire Protection and Fire Fighting Equipment
California Fire Code, Article 80

Maintenance of Compressors

Requires inspection and maintenance of compressors

CCR, Title 8, Chapter 4, Subchapter 7 (General Industry Safety Orders), Group 2, Article 7 (Miscellaneous Safe Practices), Section 3328 – Machinery and Equipment

CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling and Production), Article 16 – Gas Compressors and Engines

CCR, Title 8, Chapter 4, Subchapter 15 (Petroleum Safety Orders, Transportation), Article 21 – Gas Compressors and Engines

CCR, Title 8, Chapter 4, Subchapter 7 (General Industry Safety Orders), Group 3, Article 17, Section 3518 – Air Compressors

Maintenance of Pumps

Requires inspection and maintenance of pumps

CCR, Title 8, Chapter 4, Subchapter 7 (General Industry Safety Orders), Group 2, Article 7 (Miscellaneous Safe Practices), Section 3328 – Machinery and Equipment

CCR, Title 8, Chapter 4, Subchapter 7 (General Safety Orders), Group 6 – Power Transmission Equipment, Prime Movers, Machines and Machine Parts

CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling), Article 38 – Pumps and Pump Pressure Relief Devices

CCR, Title 8, Chapter 4, Subchapter 15 (Petroleum Safety Orders, Transportation), Article 16, Section 6844 – Pumps

Maintenance of Valves

Requires inspection and maintenance of valves

CCR, Title 8, Chapter 4, Subchapter 7 (General Industry Safety Orders), Group 2, Article 7, Section 3321 – Identification of Piping

CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling & Production), Article 9, Section 6533 – Pipe Lines, Fittings & Valves

CCR, Title 8, Subchapter 15 (Petroleum Safety Orders, Transportation), Article 16, Section 6845 – Piping, Fitting & Valves

Maintenance of Piping Systems

Requires inspection and maintenance of piping systems

CCR, Title 8, Chapter 4, Subchapter 7 (General Industry Safety Orders), Group 2, Article 7, Section 3321 – Identification of Piping

CCR, Title 8, Chapter 4, Subchapter 7 (General Industry Safety Orders), Group 2, Article 7, Section 3329 – Pipe Lines

CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling & Production), Article 9, Section 6533 – Pipe Lines, Fittings & Valves

CCR, Title 8, Chapter 4, Subchapter 15 (Petroleum Safety Orders, Transportation), Article 16, Section 6845 – Piping, Fittings & Valves

Maintenance of Relief Devices

Requires inspection and maintenance of relief devices

CCR, Title 8, Chapter 4, Subchapter 1, Article 3 (Air Tanks) Section 465: Safety Devices and Systems

CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling), Article 15, Sections 6551, 6552 & 6634 – Unfired Pressure Vessels, Boilers, and Fired Pressure Vessels and Pressure Relief Devices

CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling & Production), Article 38, Section 6634 – Pumps and Pump Pressure Relief Devices

CCR, Title 8, Chapter 4, Subchapter 15 (Petroleum Safety Orders, Transportation), Article 18, Sections 6857 - 6858 – Unfired Pressure Vessels, Boilers, and Fired Pressure Vessels and Pressure Relief Valves

Mechanical Integrity

Continued

Mechanical Integrity of Storage Tanks

DOGGR regulates mechanical integrity inspections and maintenance of above ground oil & gas production storage tanks, with additional requirements for tank within 300 feet of residences and other sensitive land uses

Public Resources Code Sections 3106 and 3270

CCR, Title 8, Chapter 4, Subchapter 7 (General Safety Orders), Group 20, Article 145 – Tank Storage

CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling), Article 14, Sections 6456 - 6457 – Reservoirs and Stationary Tanks

CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling), Article 17 – Identification of Wells and Equipment

CCR, Title 8, Chapter 4, Subchapter 15 (Petroleum Safety Orders, Transportation), Article 9 – Tanks and Reservoirs

CCR, Title 14, Division 2, Chapter 4, Subchapter 2, Article 3, Section 1773 – Production Facilities Containment, Maintenance, and Testing

CCR, Title 14, Division 2, Chapter 4, Subchapter 2, Article 3, Section 1777 – Maintenance and Monitoring of Production Facilities, Safety Systems, and Equipment

Mechanical Integrity of Boilers & Pressure Vessels

Requires mechanical integrity inspection and maintenance of boilers and pressure vessels

CCR, Title 8, Chapter 4, Subchapter 1 – Unfired Pressure Vessel Safety Orders CCR, Title 8, Chapter 4, Subchapter 1, Article 3 – Air Tanks

CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling), Article 15, Sections 6551 - 6552 – Unfired Pressure Vessels, Boilers, and Fired Pressure Vessels and Pressure Relief Devices

CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling and Production), Article 17, Section 6556 – Identification of Wells and Equipment

CCR, Title 8, Chapter 4, Subchapter 15 (Petroleum Safety Orders, Transportation), Article 18, Sections 6857 - 6858 – Unfired Pressure Vessels, Boilers, and Fired Pressure Vessels and Pressure Relief Valves

CCR, Title 8, Chapter 4, Circular Letter PV-2006-4 – Standard for Acceptance of Non-Code Boilers and Pressure Vessels

CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 3, Sections 461 - 466 – Air Tanks

Pipeline Integrity Management

Federal & state regulations require pipeline integrity management plans for natural gas and crude oil pipelines including, among numerous other requirements, the installation of leak detection technology, automatic shutoff systems, or remote controlled sectionalized block valves or any combination of these technologies on new or replacement pipelines and retrofitting certain existing pipelines, and increased integrity testing for both jurisdictional pipelines and gas gathering lines within 300 feet of residences and other sensitive land uses.

49 CFR Part 192 – Transportation of Natural and Other Gas by Pipeline

49 CFR Part 195 – Transportation of Hazardous Liquids by Pipeline

Government Code Sections 51010-51019.1 (Elder Pipeline Safety Act and AB 864)

Public Resources Code Sections 3270.5 and 3270.6 and Health & Safety Code Section 101042 (AB 1420)

CCR, Title 8, Chapter 4, Subchapter 7 (General Industry Safety Orders), Group 2, Article 7, Section 3321 – Identification of Piping

CCR, Title 8, Chapter 4, Subchapter 7 (General Industry Safety Orders), Group 2, Article 7, Section 3329 – Pipe Lines

CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling & Production), Article 9, Section 6533 – Pipe Lines, Fittings & Valves

CCR, Title 8, Chapter 4, Subchapter 15 (Petroleum Safety Orders, Transportation), Article 16, Section 6845 – Piping, Fittings & Valves

CCR, Title 14, Division 2, Chapter 4, Subchapter 2, Article 3, Section 1774 – Oilfield Facilities and Equipment Maintenance

Emergency Preparedness & Response

PRIMARY REGULATORS



Hazardous Materials Business Plan

Requires facilities that handle hazardous materials above a threshold quantity to submit an annual Hazardous Materials Business Plan to the CUPA and prepare a site map, develop an emergency response plan, and implement a training program for employees

California Health and Safety Code Division 20, Chapter 6.11, Sections 25500 - 25520
CCR, Title 19, Division 2, Chapter 4, Article 4
40 CFR Part 370.25

Release Reporting

The facility is required to make timely notifications of reportable releases

CCR, Title 14, Section 1722
CCR, Title 19, Section 2703

Spill Prevention Control & Countermeasure Plan

- Facilities required to have a Spill Prevention Control and Countermeasure (SPCC) Plan that provides for containment measures, inspection, notification and response in the event of a spill, including reporting, contingency planning, training and drills, incident command and safety.
- Agencies participate in annual tabletop drills with periodic full boom deployment exercises to ensure experienced personnel are ready in the event of a spill or release.
- A certified "Oil Spill Response Organization" is under contract to respond to spills, if additional resources are needed.
- The facility must provide a certificate of financial responsibility to address the costs of an oil spill.

40 CFR Part 112
California Oil Spill Prevention and Response Act (SB 2040)
Oil Pollution Control Act of 1990 overlaps with the state's Lempert-Keene-Seastrand Oil Spill Prevention Response Act
California Water Code 13271 – Release to Navigable Waters
CCR, Title 14, Sections 790 - 820.02 and 877-880 – Oil Spill Prevention and Response Planning
CCR, Title 14 Sections 1722 and 1773.1

Emergency Action Plan

Facilities required to have an Emergency Action Plan including notification, evacuation, account for personnel, marking of exits, training and drills, and incident command.

49 CFR Part 192.615 – Emergency Plans
49 CFR Part 194 – Response Plans for Onshore Oil Pipelines
49 CFR Part 192.605 and 49 CFR Part 195.403 – Emergency Response Training
49 CFR Part 195.402 – Procedural Manual for Operations, Maintenance, and Emergencies
CCR, Title 8, Subchapter 7, General Industry Safety Orders, Group 16, Article 109, Section 5192 – Hazardous Waste Operations and Emergency Response
CCR, Title 8, Subchapter 7, Section 3220 – Emergency Action Plans
CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 21, Section 6579 – Access to and Exit from Derrick and Rig Floor

Subsurface Operations

PRIMARY REGULATORS



Division of Oil, Gas, and Geothermal Resources



State and Regional

Permitting of Subsurface Operations

State regulations specify requirements for permitting, drilling, completion, servicing, plugging and abandonment of all oil and gas wells, with additional safety measures required for operations within 300 feet of residences and other sensitive land uses.

A Notice of Intent must be filed before commencing any operation permanently altering the casing of a well. Additional permits or approvals are required for well stimulation, with involvement of other state agencies.

Public Resources Code Section 3203

Oil & Gas Well Testing

Well integrity testing is required in a manner and frequency approved by DOGGR

CCR, Title 14, Sections 1724 et seq and 1748

CCR, Title 14, Section 1772 et seq

Fluid Injection

Fluid injection requires specific permits or approvals with detailed submissions to multiple agencies, monitoring of injection pressures, periodic testing of injection wells and detailed reporting of water sources and disposition

40 CFR Parts 144, 145, 146 & 148

CCR, Title 14, Sections 1724 et seq and 1748

Public Resources Code Section 3227 (SB 1281)

Health and Safety Code 25159 – 25159.25 (Prop 65)

Groundwater Monitoring

Groundwater monitoring is required for well stimulation operations in areas with protected water, and well stimulation requires additional permits and approvals from multiple agencies

Public Resources Code Sections 3150 - 3161 (SB 4)

CCR, Title 14, Division 2, Chapter 4, Subchapter 2, Article 4, Sections 1781-1789

Idle Well Management

Requires additional testing of idle wells and planned abandonment of long-term idle wells, with payment of additional fees

Public Resources Code Sections 3202 - 3208.1 (AB 2729)

CCR, Title 14, Section 1772 et seq

Additional Water Quality Protection

PRIMARY REGULATORS



Division of Oil, Gas, and Geothermal Resources



State and Regional



Maintenance of Well Cellars

Well grating, cellar boards and flooring must be maintained in good condition and kept drained of fluids
Sumps must be covered to prevent entry of wildlife

CCR, Title 14, Section 1774 – Oilfield Facilities and Equipment
CCR, Title 14, Section 1770 – Sumps

Protection of Water Quality

The facility must obtain a permit prior to discharging from any point source any pollutant to waters of the State, including storm water from industrial or construction sites

Clean Water Act Section 404 40 CFR Part 122.26
Health & Safety Code Sections 25249.5 - 25249-13

Waste Disposal

Federal and state regulations require that waste be characterized and disposed at an approved disposal site and preparation of waste minimization and pollution prevention plans

40 CFR Part 260
Health & Safety Code, Division 20, Chapter 6.5, Sections 25100 - 25259
CCR, Title 22, Section 66250 - 67100
CCR, Title 14, Sections 17301 - 17350