



CalGEM Public Health Rulemaking Summary of Input from Email and Postal Mail Comments

received April 21, 2020 through June 10, 2020

Beginning in February, the California Geologic Energy Management Division (CalGEM) of the Department of Conservation began soliciting comments regarding public health regulations for oil and gas operations near sensitive receptors. Emails sent to calgemregulations@conservation.ca.gov and comments received via U.S. Postal Mail were analyzed for issues of concern and recommendations from the public.

- During the period of February 18 through April 21, CalGEM received a total of 2,936 email and mail comments regarding the public health regulations
- During the period of April 21 through June 10, CalGEM received a total of 34,704 email and mail comments regarding the public health regulations.

A total of 37,640 email and postal mail comments was received.

Concerns expressed by commenters included:

- Climate and health disasters
- Legacy for future generations
- Climate crisis
- Leadership
- Proximity to oil and gas wells
- Fracking harms
- Clean groundwater
- Impact on poor and people of color
- Methane gas release
- Temperature rise
- Negative health and environmental effects
- Water waste
- Asthma, allergies, cancer, heart problems, pulmonary disease, premature mortality, respiratory issues, neurological issues, sleep disruption, kidney disease, diabetes, Genito-urinary issues
- Children, sick, elderly
- Headaches, nose bleeds, dizziness, skin, nose, and eye irritation, nausea, diarrhea, lethargy, tremors,
- Pollution of air, soil, and water, smog
- Toxicity of hydrocarbons
- Catastrophic accidents and explosions
- Sacrificial communities
- Toxic chemicals and emissions
- Refineries
- Miscarriage, perinatal effects, preterm birth, infertility
- Effect on water wells

- Reckless operations, flouting regulation
- Aliso Canyon storage facility
- Zoning
- COVID-19 increasing vulnerability
- Failure of regulation, inconsistent and piecemeal regulation
- Tanker truck traffic
- Diesel engines
- Pungent fumes, foul odors
- Loud clanging and noises
- Corruption
- Allenco site
- Industry subsidies
- Earthquakes and faults
- Aquifer protection
- Poisoning of Native American tribes
- Environmental justice
- Dangers of underground waste water injection
- Ozone and particle pollution
- Risks from wells that are closed by not capped
- Accidental oil leaks and spills
- Loopholes for rule breakers
- Pollution by supertankers
- Cost to the state
- Regulatory complexity and jurisdictional overlap
- Abandoned assets
- Fairness
- Noise and light pollution
- Preemption of local setback rules
- Lack of information on notices of intention
- Hydrofluoric acid, hydrochloric acid, BTEX, formaldehyde, heavy metals
- Mercaptan leaks
- Bankruptcies and orphan wells
- Regulatory capture
- Los Cerritos Wetlands
- Produced water contamination of public water system, fields, aquifers, ocean
- Downstream impacts
- Fracking harms
- Spills and leaks
- Hydrogen sulfide releases
- Frequent wildfires
- Radioactivity
- Endocrine disrupting chemicals, VOCs, NOx, ethane, SO2
- Social injustice, racism
- Fracking wastewater ponds
- Density of development
- Unlined pits
- Idle wells
- Declining market conditions
- Well desertion and bond forfeiture
- Plastic pollution
- Greenhouse gases
- Pipeline permitting, testing, and safety
- Decrease in property values
- Traffic accidents and fires
- Local and state tax revenues
- Unmanaged collapse of industry
- Groundwater overdraft
- Lack of sufficient inspectors
- Protection of drinking water
- Overdevelopment of oil fields
- Train derailment and crashes
- Fracking trade secrets
- Lack of CalGEM jurisdiction over land use
- Slant drilling leading to wells under homes

- Homes permitted over abandoned fields
- Regulatory relief to some companies
- Oil spraying homes
- Denial of entry to inspectors
- High rate of accidents

Some commenters indicated that additional regulations were not needed. Comments included:

- California oil and natural gas produced in the cleanest and most environmentally friendly way in the world
- Compliance with rules and regulations from over 40 agencies
- Employees have a personal and vested interest in communities where they live
- Safety and regulatory compliance as a priority
- Extensive training and certification
- Important revenue for royalty owners throughout state
- Local production safer and more environmentally friendly than imported oil
- Pride in providing clean and affordable energy
- Lost Hills SNAPS study found air cleaner within oil field than without
- Lack of proof of harm from existing operations
- Existing regulations by Air Districts and CARB are sufficient
- Those who move to the nuisance accept the risk
- Economic impact of the regulations prohibitive
- The market will kill the industry when it is time
- Increased dependence on imports from countries without our human rights and environmental record
- Destruction of good paying jobs
- Strong industry safety record
- Investment in systems that allow for real-time monitoring
- California geology and oil/gas properties dissimilar to other states
- Food Safety Expert Panel has identified no evidence that reuse of produced water for irrigation has an adverse effect on public health
- Existing California Fire Code setbacks
- Loss of tax revenue for state and localities
- Takings lawsuits
- Operators continuously monitor and routinely inspect field operations to prevent leaks
- Ongoing deployment of utility-scale solar intended to offset the energy needs of field operations

- In progress community air monitoring
- Access to affordable, reliable energy and good paying jobs is essential to public health and safety
- Issues better addressed at the local level
- World reliance on petroleum-based products
- Diversity of industry employees
- Industry contributions to the community and community organizations

Other commenters suggested actions that could be taken to address the concerns, such as:

Bans and Prohibitions Recommended

- Ban fracking and other dangerous extraction techniques including acidizing, cyclic steam and hydraulic fracturing
- Stop issuing new oil and gas permits; no new infrastructure permits
- Plan to shut down the Aliso Canyon storage facility within one year
- Phase out all oil and gas production; leave the fossil fuels in the ground
- No more fossil fuel operations in California within 10 years
- All wells to cease operation by or before 2030
- Ban flaring and the release of fugitive methane
- Ban drilling through aquifers
- Ban the use of toxic herbicides in oil fields
- Ban coal storage in West Oakland
- Ban the injection of fossil fuel wastewater into aquifers and prohibit its use for irrigating crops
- Prohibit drilling through drinking water aquifers
- Prohibit drilling in high risk fire zones
- Prohibit drilling operations that increase tanker truck traffic
- End fossil fuel operations on or near coastal wetlands; no new permits
- Permits to extend the life of wells should be denied
- Stop the use of Roundup and other toxic herbicides
- Stop offshore drilling
- Stop drilling in and around Santa Barbara
- No flaring unless it is a demonstrable emergency
- No wastewater injection into active faults
- No tar sands production near fresh water aquifers
- No drilling or fracking unless only green chemicals and electric machinery are used
- No fresh water can be used in any oil and gas production activity

- No drilling for any oil in California unless it is light crude oil
- Immediately prohibit use of diesel engines at oil production sites
- Prohibit the use of wastewater for agricultural purposes
- All technologies that contribute to surface expressions should be banned
- Injection wells near protected aquifers should be banned

Broad Policy Recommendations

- Reconsider the fracking permit approvals
- Contingency fund in case something goes wrong
- Pursue policies to ensure that fossil fuel companies, rather than taxpayers, bear the cost of abandonment, clean-up and worker transition, including but not limited to strengthening bonding requirements for operators
- Create a dedicated CalGEM health advisory group, to include representatives from local health departments, public health NGOs, independent research institutions, and organizations representing health professionals and community experts
- Place a hold on new permits in oil fields where the U.S. Geological Survey is studying groundwater quality until publication of the report and data
- Make clear in the rulemaking an intention that local governments be allowed to promulgate more stringent setback regulations; and a view that such local regulations would not be considered in any way in conflict with the statewide regulation
- Investigate reoccurring violations of air quality on the Synergy Oil Field in the Los Cerritos Wetlands in Long Beach, and remove debris, including unused pipelines and storage tanks, that litters the Synergy property
- CalGEM should exercise its authority to adopt emergency regulations to implement a health and safety buffer as soon as possible
- Establish a multiagency task force and include administrative protocols, management policies, as well as procedures, and oversight regulations that will enable CalGEM to align disparate jurisdictional entities and supersede individual jurisdictional influence in the conservation effort to protect and preserve the environment
- Require oversight of permit approval by health professionals and set objective criteria for health to override a permit request
- Extend the prohibition on Aliso Canyon described in Public Resources Code section 3217 to the SOCALGAS/Playa del Rey facility
- Delay any decision on applying set-back distances to new wells until a complete, thorough, science-based, peer-reviewed study of CA urban drilling

and production site residential impact can determine definitively the reason for the distance to be applied to the rule

- Ensure existing urban wells complying with current regulations are not affected by any impending set-back rules including those that were drilled prior to surrounding residential or other covered development
- Do not authorize plans by Exxon and Aera Energy in Santa Maria
- All principals within companies who make disastrous decisions, be held personally responsible with appropriate fines and prison
- Stop all use of pipelines and rail cars until they are properly reinforced against corrosion from the chemicals used to extract tar sands oil and heavier crude
- Develop a Comprehensive Liability Management Plan (CLMP), which holds industry accountable, addresses unrestored oil and gas sites, and protects the environment and public safety
- Oversight of CEQA compliance and establishment of a Cumulative Impact Threshold by the CDPH Offices of Health Equity and Environmental Health Hazard Assessment
- Require that newly permitted discretionary oil wells convey oil and produced water via pipelines instead of trucking

Economic Recommendations

- Provide protection for workers, including resources to fairly transition to jobs in clean energy, conservation, and remediation
- Transition to a green economy
- Replace plastic productions with hemp
- Put efforts into renewable energy sources
- Ensure that recovery investments in the energy sector go towards zero emissions, sustainable energy technologies, and equitable programs that will support healthy communities free of pollution — not to fossil fuel production or infrastructure
- Support the communities with monetary assistance
- Long term job creation through massive scale long-term job investment in renewables and expansion of public transportation
- Be bold leaders in the divestment movement from big oil in the constantly shrinking obliterated state and local pension systems
- Extensively tax oil operations with money going to local schools
- A tax on pollution from carbon & methane extraction, flaring & leakage to fund urgent climate programs, with a priority on supporting frontline communities through the transition to a clean energy economy

- A comprehensive just transition plan aimed at 1) the proper abandonment, clean up and remediation of oil wells; and 2) robust investments to protect workers in the fossil-fuel industry and the people in communities where oil production is currently a key part of the regional economy
- Acknowledge and study the serious impacts of implementing new policy that would be harmful to jobs, industry, state budget, and energy supply
- Use tax policy to end fossil fuel profits
- Tax royalty owners to cover health impact costs
- Economic analysis of the rule must consider a range of public health and environmental costs of doing nothing as well as benefits of improving public health and the environment
- Do economic analysis comparing cost of ongoing extraction with hidden costs of health and environmental harm including escalating climate crises
- Create an insurance program as well as bigger bonds to cover cost of well closures

Goals and Values Recommended

- Put environmental health over the economy
- Put health ahead of oil dollars
- Put the well-being of earth ahead of politics and Big Oil
- Create science-based policy including realistic risk assessments, accurate pollutant inventories, and credible environmental and economic models
- Protect Californians' right to basic public health protections, clean air, clean water, and access to healthcare
- A path to a healthy low-carbon future
- Recognize producers with well-developed public health and safety programs and incentivize best practices
- Educate and inform the public
- Encourage the development of California's oil and natural gas reserves, rather than discourage them
- A risk-based approach
- Enhance environmental and safety requirements
- Define and implement underlying policies that stand in alliance with environmental justice principles and policies that protect the sacred sites of indigenous peoples, such as the sites of the Tongva within the Ballona Wetlands Ecological Reserve
- Develop an expedited plan and timeline to cease oil and gas extraction and production, bringing the State into full alignment with the climate goals laid out by the Intergovernmental Panel on Climate Change

- Investigate and pursue transitions to renewable, clean energy
- More clearly define for the public what underground operations under CalGEM jurisdiction are not considered safe for communities and what science that determination was based on
- Do not include off well site recommendations that interfere with the police power of local government
- *Make the human right to clean, nontoxic air and drinkable water underscore every regulation*

Local Government & Other State Agencies

- Every county to build a fire camp annex
- Wait for CARB studies to be complete before acting
- Permanently close and then repurpose the Allenco site to a multi-use facility for the community
- Carefully review existing statutes and regulations under other agencies to avoid adding redundant and sometimes conflicting co-jurisdictional regulatory regimes in this rule making
- Coordinate with the relevant agencies to ensure communities are protected from dangerous oil tanker truck activities that support oil production
- Strengthen engagement with indigenous communities in this process and overall, including meeting with tribes to understand the specific health and safety issues facing tribes whose lands have been appropriated and developing protocols for clean-up of oil spills on indigenous lands
- Work together with local agencies to ensure that so-called "small producers" of oil and gas are not exempt from critical air quality permit and pollution control requirements
- Provide for publicly accessible online/real-time coordination of state, county, city, and other local agency/office coordination regarding issues for their relevant wells, fields, permits, violations and other relationships

Processes and Procedures Recommended

- There should be a full review of earthquake risks and community input/vote before approving any wastewater injection wells
- Strengthen the permitting process to evaluate and fully mitigate all health impacts before approval of any new wells or expansion of existing wells
- Enforce existing rules
- Evaluate and report on the health and safety risks of replacing in-state production with more imported oil and gas
- Prepare an Environmental Impact Report for the regulations under CEQA

- Fully account for health impacts of climate change when deciding whether to issue new oil and gas permits
- Permits should expire if not used
- Require that every application for permitting of an oil well go through CEQA
- Eliminate misapplication of CEQA exemptions
 - Promulgate regulations setting forth a narrowly-defined standard for when a new or reworked well in an existing field should be considered part of the ongoing operation and therefore exempt from CEQA under the grandfathering provision. The standard should preclude application of the statutory exemption whenever there has been any more than de minimis increase in the number of wells drilled in the field since April 1973
 - Promulgate an amendment to § 1684.1 clarifying that drilling and reworking of wells, and any other production-related construction and operations involving non-de minimis alterations, fall outside the scope of the Class 1 categorical exemption
 - Amend § 1684.2 to remove the reference to drilling as a covered category, and make clear that this category does not apply to drilling or re-drilling operations
- Ensure robust analysis under CEQA
- Establish standards for what areas of inquiry should be included in CEQA review, and what constitutes adequate analysis
- Regulations should define the types of direct, indirect, and cumulative impacts that must be considered in the context of CEQA; and should establish significance thresholds for such impacts
- CalGEM CEQA analysis to be as robust as NEPA requirements
- Develop a public notification and comment process for drilling permits
- Establish a spill and accident reporting page on the CalGEM website, in which it would post incident reports as soon as possible upon receipt; immediate public notification of any reported events
- Enact mandatory, publicly available reporting of all well maintenance records and well integrity testing
- Determine and implement hydrological study protocols specific to underground gas storage operations that have the capacity to contaminate the State's underground freshwater reserves
- Rules should be applied retroactively to any permits issued since CalGEM's new mandate and the setback rulemaking process was initiated; and any permits granted through blanket waivers should be reviewed for health impacts

- Provide all proposed Health and Safety comments online and provide weekly updated policy/regulatory statements for public review and response with clear "status draft" designation
- Verify Well Finder locations and report files
- Develop comprehensive environmental hazard profiles of all chemical substances used in oil and gas development
- Implement quality control checks for operator-reported disclosures
- Deny new permits to operators with outstanding liabilities
- Investigate community monitoring technologies such as phone-based air pollution sensors
- Stricter oversight and enforcement of requirements
- Prioritize the plugging and abandonment of orphan and idle wells within 5,000 feet of sensitive receptors
- Collect and review production, flaring and backlog leak reports and periodically investigate their accuracy to determine the amount of carbon equivalent in each category for the purposes of calculating a carbon tax
- Exercise authority under Public Resources Code section 3205.3 to ensure that operator bonds are sufficient to cover the cost of plugging and abandonment
- Ensure inclusive and transparent community engagement around the permitting process
- Conduct a review of inactive transport pipelines
- Monitor and publish all pipeline inspection and maintenance reports especially including the backlog report on natural gas leaks
- Analyze level of significance from wasteful, inefficient, or unnecessary consumption of energy resources relative to CEQA through public workshops
- Establish a procedure within a time certain (for example, in no longer than twelve months), whereby continued operation of oil and gas extraction that's within 2500 feet of sensitive receptors requires majority approval of the residents within that distance

Specific Regulatory Recommendations

- Create a 2500-foot setback (health and safety buffer zone) for all oil and gas operations away from homes, schools, daycare centers, clinics, hospitals, and workplaces, parks, community gardens, waterways and wildlife areas; buffer should also apply to associated pipelines
- Enforce economic justice (vs. taxpayers' funding brownfield cleanups) by requiring 50% of each quarter's gross income be put into an escrow account to cover "closing" costs of properly plugging all their CA wells + the dismantling & removal of all infrastructure, plus remediation of the land and potable aquifers

- Require the closure of all inactive wells
- Adequate testing of cyclic steam wells each year
- Adequate planning for earthquakes
- Strengthen regulation of chemicals used in oil and gas extraction and their disposal
- Apply the setback to sensitive receptors instead of facilities
- Reduce setback to 100 feet or less
- Don't include underground gas storage facilities in these regulations
- Provide incentives for the decommissioning of idle wells
- Require monitoring and correction of methane emissions for all oil and gas operations
- Make clean-up bond requirements higher
- Require regular testing of produced water for all steam injection operations and maintain a publicly-accessible online database that makes it easy for the public to understand the toxicity of produced water
- Establish a clear set of substantive application requirements in connection with a drilling authorization issued pursuant to Public Resources Code § 3203; and provide for public notice concerning all such applications
- Define the criteria used to discretionarily deny an application for authorization to drill pursuant to § 3203, even when in receipt of complete information; specify the authority to reject a drilling authorization application where it has been demonstrated that surrounding populations may suffer adverse health consequences due to air or water emissions associated with the proposed operations, that wildlife or water resources may be adversely affected, or that the proposed activity is incompatible with California's climate goals
- Apply critical well and hydraulic fracturing standards to all wells
- Loss of well casing integrity should be reported to CalGEM and regional water board with public notification
- Perimeter air monitoring and annual site inspections
- Improve exposure monitoring for chemicals in water associated with oil and gas drilling, and institute more stringent regulation of chemicals
- Require a public warning system to alert residents of hazardous conditions at well sites
- Random, at least annual, testing and reporting of all piping and operations that could emit toxic or climate warming emissions
- Soil testing before tank installation to establish a baseline; soil testing and remediation before replacing or repairing any tankage
- Provide guidelines authorizing the inspection of and determination of subsidence by qualified engineers, preferably independent entities, in sensitive, at-risk areas

above or in pools or pools in a field and operational gas storage fields, with the requirement that stakeholders be alerted to the subsidence via publication of the subsidence report

- Study and develop guidelines and oversight requirements that address outgassing events due to geological formations and phenomena, that include migrating, escaping, and outgassing events caused by subsidence, shifting geological formations, over-pressurized conditions, etc.
- For every new well drilling permit issued, one well owned by the same operator must be properly abandoned
- Water supplies should be protected by regularly testing for chemicals to ensure safety among surrounding communities
- Fracking wastewater ponds to be covered and contained
- Require full disclosure by privately owned companies of the toxicity, use, and disposal of all chemicals involved in oil and gas drilling, extraction, maintenance, odor control, and all other uses
- Restrict the ability of companies that have failed to properly abandon wells within a certain timeframe to obtain new permits
- Provide for all gas storage facilities using wells for any operations in the field listings, top-/bottom-of-hole locations for all wells and any plugged portion of such wells, and all pressure recording related thereto and monitoring wells
- Provide for immediate action owner/lessor-lessee-operator bonds to local emergency responders for containing, recovery, and remediation for any oil spill of >1 barrel outside of surface containment areas within any subsurface delineated oil or gas field
- Provide for publicly accessible online/real-time access to visual video monitoring of any grouping of >5 wells within 100ft radius, can be motion activated camera with zooming in/out and rotating capabilities.
- Provide SNAPS air quality and meteorological monitoring for all well fields within urban areas with suitable on-line/real time modeling for dense gases and complex terrains
- Provide publicly accessible fence-line air quality monitoring for H₂S, CO₂, C₂+ H₆+ gases for all well drilling, rework, and abandonment activities
- Require documentation and evaluation of the age, condition, and safety of oil/gas pipelines, particularly in proximity to sensitive areas
- Include timely, accessible and comprehensive public notice of all process-related activities using toxic substances
- Require industry to record, maintain and disclose an inventory kept on all spills including surface expressions, pipeline spills, borehole leaks, leaks into

groundwater or soil, and any other spill or leak; all spills over 1 gallon to be reported and publicly posted

- Requirements to plug existing idle wells prior to the issuance of new drilling or sidetracking permits
- Full bonding requirements for operators prior to commencing construction and full bonding prior to transfer of ownership
- Require of all EOR projects:
 - Public accessible graphic and GIS based pressure and flow models for all EOR and Gas Storage facilities with more than two wells
 - Top and Bottom Holes with collision maps where more than 5 wells exist or where more than 5 well paths lie within 640 acres
 - Injection point and production pressures and overlying ground surface levels changing by >0.2 inches between injection and production points and within 500ft of well and flow routes
 - Pressure monitoring systems for all wells at the surface within 500ft of the well or flow routes in subsurface
- Provide for all ownerships, liabilities, and responsibilities assignments regarding all wells, surface facilities, and emergency situations; lease and operator agreements must include provisions for costs if bankruptcies are declared by any party
- Require full enclosure of all wells with appropriate ventilation at top; require full "Secondary Containments" around and beneath all wells and related equipment of enclosed site
- Require 100% cement plugging of all wells, including idled, abandoned, plugged, core/dry holes, and any other term other than Active or Monitoring, include perforated casing and 100% cement with injection cement at 2.0 x hydrostatic pressure, into and thru casings and all annuli
- Consider using site-specific setbacks determined through modeling that incorporates operating pressure, a range of wind speed & direction scenarios, and topographic effects for each well located in urban areas
- Extend SB 4's chemical disclosure mandate to include routine oil and gas development activities
- Require operators to decouple proprietary information from the Public Resources Code section 3160(b) disclosure criteria
- Ensure continuous monitoring of idle wells and the proper and timely plugging of abandoned wells
- Phase out the use of open, unlined pits
- Mandate that operators be certified, registered and compliant with UIC Class I certification before one drop of toxic waste is injected into an active fault line

- Implement a fine for spills, leaks and other releases of oil and gas to build a real incentive for operators to avoid spills - it will be costly above and beyond the loss of product
- Require on all existing and any new discretionary use permits for oil and gas operations to include analysis of risk to nearby surface and groundwater resources
- Fully mitigate all potential site-specific and cumulative health and safety impacts prior to the approval of permits for new wells and well stimulation treatments
- Require any newly permitted discretionary oil wells to collect gases and use or remove them for sale or proper disposal instead of flaring or venting
- Impose additional requirements on local Climate Action Plans
- Test well casing joints rigorously because they get weak, risking leaks
- Test high-risk cyclic steam injection mechanisms adequately and yearly
- Wells must be properly closed, and pipelines decommissioned

CalGEM will review all the comments and recommendations received as it develops a regulatory proposal to address public health concerns with oil and gas production.