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April 26, 2018

TO: Rock Zierman, CEO
California Independent Petroleum Association

FROM: Cyrus Rangan, MD., FAAP., FACMT., Director *Cyrus Rangan MD FAAP FACMT*
Toxicology and Environmental Assessment

Angelo J. Bellomo, REHS, QEP *[Signature]*
Deputy Director for Health Protection

**SUBJECT: DEPARTMENT OF PUBLIC HEALTH (DPH) RESPONSE TO APRIL 5, 2018
COMMENT LETTER FROM CALIFORNIA INDEPENDENT PETROLEUM
ASSOCIATION (CIPA)**

Please find attached DPH's response to CIPA's April 5, 2018 comment letter submitted to Los Angeles County Department of Regional Planning, regarding Los Angeles County Department of Public Health's Report on *Public Health and Safety Risks of Oil and Gas Facilities in Los Angeles County*.

If you have any questions, please contact Dr. Cyrus Rangan at (213) 738-3220.

CR/AJB

Attachments

cc: Barbara Ferrer
Jeffrey Gunzenhauser
Cynthia Harding
Amy Bodek, Director, Department of Regional Planning
Timothy Stapleton, Department of Regional Planning
Sabrina Lockhart, Director of Communications, CIPA

On April 6, 2018, The Los Angeles County Department of Public Health received a comment letter dated April 5, 2018 from the California Independent Petroleum Association (CIPA), regarding the "Public Health and Safety Risks of Oil and Gas Facilities in Los Angeles County." DPH always welcomes thoughtful dialog in response to our published materials. DPH respectfully acknowledges that there may be differences of opinion on health impacts of oil drilling. We stand behind our work. In doing so, we are charged with reviewing available materials, sifting through differences of opinions, and selecting relevant materials to formulate health-based perspectives.

We applaud CIPA's goal to achieve operational excellence in oil and gas, especially for those closely situated near densely populated urban communities. However, community expectations do not end with operational excellence. Neighboring communities expect operators to be accountable and progressive with regard to health protection. DPH believes we can achieve both.

See below for DPH's responses to CIPA's comments.

Section 1: DPH Report lacks objective scientific data from LA County operations to support its own conclusions and recommendations.

Response: DPH reviewed objective scientific data from peer-reviewed epidemiological studies, environmental impact assessments, published environmental studies, and multiple jurisdictional perspectives using similar reviews, in preparation of the Report.

- The report repeatedly acknowledges that studies have not shown a causal relationship between oil and gas facilities in LA County and adverse health effects.

Response: The Report states that such a relationship can not be established conclusively based on current studies. Conversely, the report does not deny the existence a causal relationship. The Report notes that DPH investigations at AllenCo and Firmin Street facilities confirmed direct relationships between oil and gas operations and adverse health effects in those neighboring communities, including physical symptoms and negative effects on well-being and quality of life. DPH acknowledged various limitations in the studies that were reviewed in the report, and emphasized a need for further study and expanded local air monitoring to assess these relationships in all jurisdictions in which community members may be impacted by oil and gas operations.

- The report then dismisses the lack of a causal relationship with LA County operations, claiming "limitations of epidemiological studies," "predicted effects," "limited associations" and "lack of data." Rather than asking the State to collect further data through the Study of Neighborhood Air Near Petroleum Sources (SNAPS) program, the report then recommends imposing significant new requirements on urban oil and gas operations. In doing so, the report ignores that its own LA County Oil and Gas Strike Team inspections of dozens of operations did not find safety or operational issues such as those observed at AllenCo and Firmin Street near downtown Los Angeles.

Response: The Report does not dismiss a lack of causal relationships, rather, the Report explains that conclusions about causation can not be established conclusively, secondary to the limitations of current studies, and that further study is warranted.

The Report endorses expanded air monitoring at oil and gas operations, to characterize air quality in nearby communities. DPH is currently engaged with both the California Air Resources Board (CARB) regarding the Study of Neighborhood Air near Petroleum Sources (SNAPS), and the South Coast Air Monitoring District (SCAQMD) regarding air monitoring studies around oil and gas sites in Los Angeles County. DPH will be providing further input and guidance as the SNAPS program presents its community selection process at public meetings, which are anticipated to occur in mid-2018.

The Los Angeles County Oil and Gas Strike Team's inspections were not ignored. In fact, page 21 of the report states, "The findings in this report support the recommendations set forth by the interagency Oil and Gas Strike Team." As you are aware, the Oil and Gas Strike Team conducted site visits to 15 oil and gas facilities currently operating in unincorporated Los Angeles County, and a significant portion of wells were not inspected. Thus, a comparable lack of comprehensive data understandably precludes the Strike Team's report from establishing the safety of oil and gas operations, based on limited inspections of a fraction of County facilities. Accordingly, there is a need to fill data gaps with comprehensive inspections of every facility; expanded, comprehensive air monitoring; streamlined communication among participating agencies; and other recommendations listed in the Next Steps section (page 21) of the Report.

- The report implies criticism of Long Beach, Signal Hill and other cities with 300-foot setbacks, without noting their decades of direct operation and close oversight of oil and gas fields.

Response: Decades of direct operation and close oversight of oil and gas fields do not necessarily denote compliance nor imply public health protection. Lack of comprehensive air monitoring makes it difficult to characterize airborne exposures to adjacent community members and to assess community health risks. The onus is on operators to demonstrate that their mitigation measures are sufficient to protect public health.

On April 11, 2018, DPH was contacted by Los Angeles County Hazardous Materials Division (HAZMAT) regarding extremely high airborne VOC readings of approximately 100,000 PPM discovered near a drain at a building within a park containing three oil wells at SIGNAL HILL. HAZMAT informed DPH that these levels were in the "explosive range". DPH was informed that AQMD, City of Signal Hill, and Signal Hill Petroleum were aware of the issue, and were working to develop a mitigating solution, yet none of those organizations were currently aware of the source and/or pathway of these emissions. This situation underscores the risks and hazards to human health from oil and gas operations despite regulatory oversight. The proximity of these wells to the community further heightens DPH's concerns, and highlights the urgency to mitigate these such hazards immediately.

- As continuous examples and reports have shown, all aspects of LA County oil and gas operations are highly regulated. Therefore, mentioning "chemicals" is misleading as there is no context given to quantities or concentrations used, the equipment in which they are used, and the regulatory limits imposed on their use. The County's own Fire Department oversees industrial chemical usage, including that associated with our operations.

Response: Regulation is not necessarily synonymous with health protection. While the Report acknowledges the importance of rigorous regulatory oversight, it also acknowledges potential health impacts of oil and gas operations on nearby residents despite compliance with existing regulations. For this reason and many others, the Report recommends expanded air monitoring and other measures to help fill important data gaps that can in turn inform assurance of appropriate regulatory oversight that will protect public health (see page 21).

- Unlike the Strike Team report, the DPH report did not include technically qualified or licensed experts on oil and gas well drilling, well stimulation or petroleum production. The list of report authors does not include any California-licensed engineers or geologists, or experienced petroleum engineers.

Response: Report author and board-certified Toxicologist Katherine Butler, BS MPH DABT is a technically qualified expert, who has performed over 100 Health Risk Assessments for oil and gas sites from 2008-2015, including a 2016 Health Impact Assessment of an oil drilling project in Hermosa, California, published in the peer-reviewed International Journal of Occupational Medicine and Environmental Health (Accessible online at: <http://ijomeh.eu/Health-Impact-Assessment-of-an-Oil-Drilling-Project-in-California,58560,0,2.html>, last accessed April 10, 2018). In addition, Ms. Butler co-authored and published

a Human Health Risk Assessment of Oil and Gas Activity in Northeastern British Columbia for the British Columbia Ministry of Health, Canada, in April 2013.

At the request of the 2nd Supervisorial District, drafts of the Report were reviewed by Luis Perez and Greg Chittick of MRS Environmental Inc., who are technically qualified experts on oil and gas well drilling, well stimulation, and petroleum production. Mr. Perez and Mr. Chittick provided input on multiple revisions of the Report via emails, telephone meetings, and in-person meetings. MRS Environmental Inc. has more than 20 years' experience providing consulting, monitoring, and excellent service to local governmental agencies and private international companies. MRS and its staff have managed, consulted on, and contributed to projects across the state, nation, and world. MRS specializes in the management of complex, multi-disciplinary projects, with personnel with a wide range of expertise in environmental studies. Mr. Perez's and Mr. Chittick's input proved to be valuable in the finalization of the Report, and we thank them for their contributions.

Also reviewing the Report was Gregory Sena, California-Licensed Professional Geologist and California-Certified Engineering Geologist with the Los Angeles County Department of Public Works.

Section 2: When comparing LA County oil and gas production to other jurisdictions, DPH chose to focus on distant states with vastly different operations and ignore the experience of local governments like Long Beach, Signal Hill and Kern County, which already have rigorous regulatory oversight over the industry.

Response: As noted in the Report, adverse health effects may be observed despite rigorous regulatory oversight, further supporting the need for expanded air monitoring and other recommendations in the 'Next Steps' (page 21) section of the Report. This may occur in LA County or in any other jurisdiction or state. On April 12, 2018, the Associated Press reported 381 violations issued by DOGGR to offshore oil operations since 2015 in Southern California. Even though these are offshore operations, these violations occurred in CA despite regulatory oversight. Rigorous regulatory oversight does not imply compliance, and compliance does not imply health protection.

- DPH based its report primarily on a literature review and phone calls with jurisdictions outside California.

Response: DPH reviewed objective scientific data from peer-reviewed epidemiological studies, environmental impact assessments, published environmental studies, and multiple jurisdictional perspectives using similar reviews, in preparation of the Report.

- DPH presented a summary of setback distances adopted by various jurisdictions around the country, like Colorado and Texas, but just showing the setback is misleading. DPH did not acknowledge or describe the substantial differences in both oil and gas operations and regulatory standards between those jurisdictions and LA County operations. For example, none of the out-of-state jurisdictions have the emission controls in place required in the South Coast AQMD, so those jurisdictions are not directly applicable to operations in LA County.

Response: The referenced table includes a column devoted to "Additional Mitigation and Assessment Notes", addressing mitigation in the context of the presented setback distances. Numerous jurisdictions adopt a minimum distance as an initial mitigation tool, while additional mitigations measures are then applied in the context of facility operations and other factors. Therefore, it is reasonable to lead with a summary of setback distances, in any discussion of mitigation. However, operations and other factors vary considerably among jurisdictions and facilities. The onus is thus on operators to demonstrate that their mitigation measures are sufficient to protect public health, regardless of existing regulatory requirements.

- The discussion of setback distances in conjunction with other mitigation measures suggests LA County is considering a multifaceted approach to new ordinances, but acknowledges that some aspects of production are under the jurisdiction of other agencies such as DOGGR.

Response: It is correct that agencies such as DOGGR play important roles in regulating oil and gas operations, and that they must do so with public health as their first priority.

- While there are always limitations to studies, DPH reported that the available epidemiology studies could not support a conclusion “whether or not living near oil and gas activities is associated with long term health impacts.”

Response: It should not be inferred that such studies conclude a lack of health impacts. The Report notes that current studies are insufficient to establish such conclusions, and that further study is warranted.

- One study that was a part of the epidemiological review drew health impact conclusions from those living near development in the Amazon Basin, which doesn’t have the same access to quality healthcare or stringent regulations in place as LA County.

Response: DPH is obligated to examine epidemiological studies of all areas both inside and outside of Los Angeles County. Epidemiological studies of oil and gas operations outside Los Angeles are relevant in the study of health, as Los Angeles County also deals with inequitable access to health care, socioeconomic discordances, and vulnerable subpopulations. Thus, oil and gas operations in Los Angeles County should be considered within an Environmental Justice paradigm. To that end, the Report recommends expanded air monitoring in its Next Steps (page 21), in addition to periodic review of setback distances, preventative testing and monitoring, community safety plans, and emergency preparedness plans.

- Areas that don’t apply California’s leading safety, labor and environmental standards were referenced, and in fact given more weight by DPH than studies in California.

Response: The Report examined a broad spectrum of areas impacted by oil and gas operations. It is the responsibility of DPH to examine all available evidence to evaluate the full range of exposures and risks, and to highlight gaps in data. Taking all available evidence into account, DPH identified significant gaps regarding the lack of comprehensive air monitoring around oil and gas facilities, lack of safety plans, and lack of formal communication lines among relevant agencies.

- These other areas like Colorado and Texas operate high-pressure gas wells unlike LA’s low-pressure oil wells, a significant and important difference.

Response: Other jurisdictions undoubtedly may have different operations and regulations. However, any operation may adversely impact public health despite regulatory oversight. Therefore, the Report makes recommendations in the Next Steps section (page 21) to begin to fill existing gaps.

- Most of these areas are generally rural, unlike the regulations already in place in urban drilling sites.

Response: Both rural and urban oil & gas operations may impact public health despite regulatory oversight.

- Additionally, we were surprised to learn that DPH contacted the State of Maryland, which is not a major oil and gas producing state, and yet ignored the Cities of Long Beach and Signal Hill when inquiring about setbacks.

Response: Whether the State of Maryland is considered a "major oil and gas producing state" is irrelevant. What is relevant is that Maryland has faced similar challenges as the many other jurisdictions in Table 1, and have adopted ordinances for setback distances, as have many California jurisdictions. Long

Beach and Signal Hill were not ignored, as they were similarly referenced in the Table as jurisdictions with 300-foot setbacks.

Section 3: DPH excludes its own data and previous studies.

Response: The Report was based on relevant DPH data and published studies and documents.

- The report never mentions DPH's comprehensive 2011 Community Health Assessment of the Inglewood Field, which found the health of residents near the field to be similar to the health of residents throughout Los Angeles County.

Response: The Inglewood Oil Field Communities Health Assessment (Feb 2011) was not a prospective or retrospective analysis of health risks related to an oil field. This assessment was to provide a "snapshot" of various health indicators, and consisted of analyses of County-available health data, including data on mortality, low-birth-weight births, birth defects as well as analysis of cancer rates conducted by USC. It was NOT an epidemiological study, because exposures were not evaluated in relation to health outcomes or risks. The "Limitations" section of the Inglewood Oil Field Communities Health Assessment explains clearly that the report can NOT be used to evaluate the relationship between oil drilling and health outcomes. Therefore, it was not utilized as such in the Report. Excerpt from the Executive Summary of the report (page V) reads:

"It is important to note that this type of analysis cannot establish causal relationships between emissions from oil drilling activities and specific causes of death because of the lack of information on the individual levels of exposure to emissions that could establish dose-response curves and temporal relationships as well as the multitude of other risk factors that influence these disease outcomes. For example, a high rate of mortality from asthma in the community adjacent to the Inglewood Oil Field would not prove that the oil field operations are causing asthma since there are many other potential causes, such as exposures to traffic-related air pollution, tobacco smoke, or adverse environmental conditions in the home. Alternatively, a normal or low rate of mortality from asthma would not prove that the oil field is safe, again because of the many other factors that influence the rate. Thus, these results should be interpreted with caution. Due to these limitations, the safety of the oil field would be more appropriately assessed by careful monitoring of the oil field operations to ensure compliance with regulations and standards."

- The Strike Team conducted an audit and inspection of 557 wells and 15 oil and gas facilities in Los Angeles County during 2017 and noted that health risks were considered low, however DPH largely ignored the Strike Team findings in its report and recommendations.

Response: The Strike Team performed no investigations or analyses to evaluate health risks, therefore a conclusion about low health risks can not be inferred from the Strike Team's findings. Conversely, the Strike Team's inspections were not ignored. Page 21 of the report states, "The findings in this report support the recommendations set forth by the interagency Oil and Gas Strike Team." As you are aware, the Oil and Gas Strike Team conducted site visits to 15 oil and gas facilities currently operating in unincorporated Los Angeles County, significant portion of wells were not inspected. Thus, a comparable lack of comprehensive data understandably precludes the Strike Team's report from establishing the safety of oil and gas operations, based on limited inspections of a fraction of County facilities. Accordingly, there is a need to fill existing gaps with comprehensive inspections of every facility; expanded, comprehensive air monitoring; streamlined communication among participating agencies; and other recommendations listed in the Next Steps section (page 21) of the Report.

Section 4: DPH recommends new regulations without addressing and enforcing current regulations in place.

Response: The Report makes recommendations in the 'Next Steps' section (page 21). These recommendations are made independent of the content, strictness, or enforcement of current regulations.

- The report should have been more direct and candid about the extensive oversight already applied to oil and gas production in LA County.

Response: The Report directly acknowledges oversight of operational and environmental conditions at oil and gas facilities, while also acknowledging the need for more comprehensive assessments. "There are currently 68 active oil fields in the Los Angeles Basin, with facilities operating under a wide range of operational and environmental conditions. While some facilities have been subject to stricter design and mitigation measures, others have not been required to conduct health risk assessments or other environmental studies."

- In Long Beach, for example, the City is the operator of the Wilmington Field, and 26 federal, state and local agencies oversee production from safety, drilling, facilities, chemical use and emissions control to emergency response.

Response: The Report states, "A site-specific assessment at each oil and gas facility within the County is necessary to identify current distances from existing operations to sensitive land uses and whether current mitigation measures are sufficient."

The number of agencies regulating any facility may create its own set of problems, such as inconsistent communication among agencies. The Report recommends streamlining such communication in the Next Steps section (page 21)

- California regulators know more about local oil and gas operations than they do about almost any other type of facility or operation – whether private or governmental. In fact, in the report's discussion of risks and chemicals, oil and gas operations are not exceptional. DPH could have substituted hospitals, universities, county and utility maintenance yards, water treatment and sanitation facilities, airports, and bioscience, aerospace and manufacturing facilities for "oil and gas facilities" in the report and draw the same conclusions.
 - These other facilities routinely use and store large quantities of chemicals that are potentially hazardous.
 - Most of these facilities are regulated by fewer agencies than oil and gas facilities.
 - Many of these are also closer to residences than oil and gas wells.

Response: DPH must protect and improve the health and well-being for all residents, and must evaluate multiple health and safety risks. DPH observed a lack of comprehensive review of health-related studies and relevant gaps pertaining to oil and gas in the scientific literature. After discussions with internal and external stakeholders, DPH saw the benefit in providing the Department, County agencies, State agencies, community organizations, and industry with both a comprehensive literature review and current perspectives of other jurisdictions facing similar challenges. The goal of the Report was to provide guidance to protect health. The guidance was based on reviews of epidemiological literature and environmental/health impact assessments; DPH community investigations in response to health complaints near oil and gas operations; and consultation with other jurisdictions. It is true that there is a wide range of facilities with numerous hazards all over Los Angeles County. DPH is currently involved with many of them.

It is true that other facilities routinely use and store large quantities of chemicals that are potentially hazardous and that some may have fewer regulators. However, it is overly simplistic and misleading to assess the safety or public health impacts of any given facility by the number of agencies that may regulate it. Rather, in each situation, the adequacy of regulation should be based on what is known about the potential harms of the facilities, the risk these facilities pose to the communities around them, as well

as information related to environmental monitoring or the health and well-being of nearby communities. The proximity of oil/gas operations and other industries to our communities is of utmost importance to DPH, and underscores the many reasons for synthesizing the Report.

Section 5: DPH did not leverage existing statewide funds to conduct an inclusive air monitoring study.

- The report references the California Air Resources Board's community sampling program – called SNAPS or Study of Neighborhood Air Near Petroleum Sources. SNAPS is fully funded by taxes on industry like greenhouse gas allowances, and CARB is currently selecting statewide locations to sample this summer. We were surprised that DPH didn't specifically request that CARB prioritize urban LA sites for air sampling, including the two case studies – AllenCo and Firmin Street – as well as Southern California's largest open petroleum seep at the La Brea Tar Pits.
- Leveraging the State's SNAPS program would be a quick way to:
 - o Close data gaps identified by DPH in the next few months,
 - o Reduce the speculative nature of the report's comments on air quality and,
 - o Identify what additional measures, if any, may actually be warranted to address emissions in the community, whatever the sources.
- We hope the County will constructively leverage the existing, fully-funded SNAPS program to answer questions posed by the DPH report and identify ways to improve air quality in urban areas, from whatever source, and use the SNAPS sampling data to prioritize verified emissions sources for additional review and mitigation.

Response: As stated in the report "To better characterize air quality in communities near oil and gas operations, SCAQMD completed a fence-line monitoring study (refer to Section III for more information) and CARB launched the Study of Neighborhood Air near Petroleum Sources (SNAPS); results from these efforts should be used to inform air monitoring policies."

CARB launched SNAPS in response to community concerns and scientific recommendations, particularly after the Aliso Canyon natural gas leak and other incidents highlighted the potential impacts of aging oil and gas infrastructure. "Limited information exists on the impacts oil and gas operations may have on air quality in nearby communities. Using SNAPS, CARB hopes to learn more about potential impacts of criteria pollutants and toxic air contaminants in neighborhoods near oil and gas activities. Short and long-term exposure to these pollutants may contribute to health outcomes such as asthma, cardiovascular disease, and in some cases, cancer." https://www.arb.ca.gov/cc/oil-gas/snaps/snaps_general_flyer_english_2-27-18.pdf

DPH is currently working with CARB to discuss community selection processes and results. Air monitoring is expected to begin mid-2018. CARB suggests selection for SNAPS may complement placement of community monitoring under AB 617; DPH has submitted comments on AB 617 prioritization and implementation.

Section 6: The report closely evaluates and describes the Department's concerns about two urban sites (AllenCo and Firmin Street) from 2013-2016, both of which were closed by regulatory agencies.

Response: DPH conducted community-level health investigations at these 2 sites, and acted in its role as the County Health Officer to protect health.

- Similar concerns were not found in the Strike Team's inspections of hundreds of wells from other operators in 2017 by the Public Health, Regional Planning and Fire Departments.

Response: The Strike Team did not find similar concerns, because the Team did not look for them. The Strike Team performed no community health assessments to determine the existence of similar conditions in communities neighboring the facilities that they inspected. DPH investigated the AllenCo and Firmin

Street facilities from a community health perspective, and performed accordingly in its role as the County Health Officer.

- Even at AllenCo, DPH's own investigation noted that about 46 percent of local residents were not even aware of their proximity to an oil production site, casting doubt on the level of disturbance from these operations. However, DPH's report extrapolated the AllenCo and Firmin issues to all wells in urban residential areas County-wide.

Response: As a result, 54% of residents were aware of their proximity to an oil production site. It should be clearly understood that a person can suffer physical symptoms from odor emissions without clear knowledge of the source of those odors. Non-awareness of proximity does not constitute grounds for casting doubt on the level of disturbance from these operations. DPH did not "extrapolate" these issues to all wells in urban residential areas County-wide, and is unaware of any calculation under which such an extrapolation could be performed. However, the Report notes that health assessments of communities near oil and gas operations could reveal findings similar to those found at AllenCo and Firmin Street, thus highlighting the need for further study.

- The County should focus on the dense urban sites where concerns have been raised, not try to cast a broad net over all wells across the County, and should expressly exclude oil and gas operations already closely regulated by cities like Long Beach and Signal Hill.

Response: It is the responsibility of DPH to focus on the entire County in its role as the County Health Officer. The lack of comprehensive air monitoring data, the lack of community health assessments, the lack of streamlined communication among agencies, and the lack of comprehensive emergency and safety plans contribute to significant gaps. From a public health perspective, a broad net is categorically necessary, and should expressly include cities such as Long Beach and Signal Hill, secondary to both their narrow setback distances and the recent air monitoring findings at Signal Hill noted by Los Angeles County Fire Department HAZMAT officials.

- Having the SNAPS results will help the County to prioritize resources and operations for further study, rather than applying a one-size-fits-all approach that the report seems to suggest and that runs counter to the Strike Team findings.

Response: DPH is currently working with CARB on SNAPS. The Report recommends a deliberately BROAD initial approach (not a one-size-fits-all approach as suggested) to assessing oil and gas facilities, to expand air monitoring, streamline communication among agencies, review setback distances, and review emergency and safety plans. These recommendations are very consistent with the Strike Team's recommendations, which include the following: "1) review setback distances, 2) enhance air quality and odor monitoring, 3) review Emergency Response Plans, and 4) enhance community communication."

Section 7: The report does not consider that the oil and gas operations, including the drilling of wells and construction of tanks and other facilities, preceded the building and of nearby structures.

Response: This observation about the order of construction of facilities and nearby structures is irrelevant in the context of the impact of oil and gas operations on community health.

- It is important to recognize that oil and gas wells and facilities did not move into the dense residential areas identified by the DPH, but rather housing was built around them as a result of land use decisions by the city.

Response: The Report recognizes that current setback distance for oil wells in the County Zoning Ordinance "...does not apply to wells drilled prior to its adoption or to wells that preceded construction of nearby structures." However, this ordinance should never excuse any facility from adversely affecting the health of its neighbors, simply because a residence may have been built after the facility was sited. The

facility has the responsibility to be a good environmental steward, and an ethical obligation to protect its neighbors from its own emissions, regardless of "who was there first".

The Report subsequently notes the following: "Los Angeles County and local jurisdictions within the County should expand the minimum setback distance beyond 300 feet, as currently specified in local zoning code, and apply these requirements to both the siting of new wells and to the development of sensitive land uses near existing operations."

- With the current regulations that are enforced and adhered to, the Strike Team concluded that "the risk levels were considered low for risks associated with hydrogen sulfide gas, operating pressure, and drilling frequency.

Response: The Public Health Screening Assessment based public health, safety, and environmental risks primarily on four priority areas: 1) the facility's hydrogen sulfide gas content in production, 2) operating pressures of wells and equipment, 3) drilling frequency, and 4) proximity to nearby populations. This is a fairly narrow assessment, which can not be utilized to assess overall health risk for nearby residents. These findings of Strike Team do not support a conclusion of low risk, rather, the need for further study.

Final comments:

It is important to note that oil production has been part of the history of Los Angeles County for more than 100 years. The industry is regulated by more than 26 local, state and federal agencies, and operates under the strictest safety and environmental regulations in the world. Oil production continues to play an instrumental role in sustaining the region's middle class, and generates more than \$1.8 billion for our local economy, including more than \$200 million in state and local taxes. That money is used on key public services including education and public health and safety.

Additionally, California produces only 28% of the oil and gas it consumes and imports the rest. New restrictions on oil and gas production in Los Angeles means California will need to tanker in more imported oil into its busy ports from foreign countries with abysmal human rights records and few environmental protections to support its energy demands.

On a final note, local oil and gas producers in LA County and City comply with extensive and stringent emission regulations enforced by the South Coast Air Quality Management District (SCAQMD). These regulations are specifically designed to protect public health and safety by controlling air emissions and odors for people living and working near production facilities. Given that these producers already abide by the already strictest environmental controls in the nation, the addition of these unnecessary further restrictive measures would most likely adversely impact their business and the local economy.

Response: Regulations may be designed with the best of intentions, but regulatory oversight does not always equate with compliance, and compliance with existing regulations does not necessarily confer public health protection. DPH, our communities, and our industries should agree that public health protection must always take precedence over economic considerations, especially when industry is situated near sensitive land use.



DATE: April 5, 2018

TO: Timothy Stapleton, Senior Regional Planner, County of Los Angeles

FROM: Rock Zierman, CEO, California Independent Petroleum Association

RE: Los Angeles County Department of Public Health's Report on Public Health and Safety Risks of Oil and Gas Facilities in Los Angeles County

As Los Angeles Basin oil and gas producers, we fully understand the public has questions surrounding our operations. People want to know that their natural resources are being produced safely and that our government agencies take their regulatory responsibilities seriously. We also fully understand that natural resources are foundational to our economy, our national security, and our way of life. Nowhere do these two drivers – safe, responsible production alongside growing public demand – express themselves more fully than in Los Angeles. Oil production facilities in operation for more than a century are now surrounded by dense urban development and that neighboring community expects operational excellence. Operators desire the community to be informed and reasonable in its expectations. We can achieve both.

As you review the DPH Report, we urge you to also consider the decades of research and studies conducted by regulatory agencies throughout the State of California, as well as other academic researchers. That body of work speaks to the safety of oil and natural gas production under California's leading environmental standards.

As-written, the DPH Report's conclusions and recommendations lack grounding in scientific research. Specifically, the DPH Report:

- Lacks objective scientific data from LA County operations to support its own conclusions and recommendations,
- Relies on other jurisdictions outside of California when making recommendations or claims,
- Uses weak and unsubstantiated science,
- Uses misleading language,
- Ignores DPH's own data and previous studies,
- Recommends new regulations without addressing and enforcing current regulations in place, and
- Fails to recommend leveraging existing statewide funds and programs that would provide an inclusive urban air monitoring study in the summer of 2018.

Before policymakers adopt changes that will disrupt the local economy without actually improving public health, we would urge you to base your decisions on science. Here are some key data points to consider:



DPH Report lacks objective scientific data from LA County operations to support its own conclusions and recommendations.

- The report repeatedly acknowledges that studies have not shown a causal relationship between oil and gas facilities in LA County and adverse health effects.
- The report then dismisses the lack of a causal relationship with LA County operations, claiming “limitations of epidemiological studies,” “predicted effects,” “limited associations” and “lack of data.” Rather than asking the State to collect further data through the Study of Neighborhood Air Near Petroleum Sources (SNAPS) program, the report then recommends imposing significant new requirements on urban oil and gas operations. In doing so, the report ignores that its own LA County Oil and Gas Strike Team inspections of dozens of operations did not find safety or operational issues such as those observed at AllenCo and Firmin Street near downtown Los Angeles.
- The report implies criticism of Long Beach, Signal Hill and other cities with 300-foot setbacks, without noting their decades of direct operation and close oversight of oil and gas fields.
- As continuous examples and reports have shown, all aspects of LA County oil and gas operations are highly regulated. Therefore, mentioning “chemicals” is misleading as there is no context given to quantities or concentrations used, the equipment in which they are used, and the regulatory limits imposed on their use. The County’s own Fire Department oversees industrial chemical usage, including that associated with our operations.
- Unlike the Strike Team report, the DPH report did not include technically qualified or licensed experts on oil and gas well drilling, well stimulation or petroleum production. The list of report authors does not include any California-licensed engineers or geologists, or experienced petroleum engineers.

When comparing LA County oil and gas production to other jurisdictions, DPH chose to focus on distant states with vastly different operations and ignore the experience of local governments like Long Beach, Signal Hill and Kern County, which already have rigorous regulatory oversight over the industry.

- DPH based its report primarily on a literature review and phone calls with jurisdictions outside California.
- DPH presented a summary of setback distances adopted by various jurisdictions around the country, like Colorado and Texas, but just showing the setback is misleading. DPH did not acknowledge or describe the substantial differences in both oil and gas operations and regulatory standards between those jurisdictions and LA County operations. For example, none of the out-of-state jurisdictions have the emission controls in place required in the South Coast AQMD, so those jurisdictions are not directly applicable to operations in LA County.



- The discussion of setback distances in conjunction with other mitigation measures suggests LA County is considering a multifaceted approach to new ordinances, but acknowledges that some aspects of production are under the jurisdiction of other agencies such as DOGGR.
- While there are always limitations to studies, DPH reported that the available epidemiology studies could not support a conclusion “whether or not living near oil and gas activities is associated with long term health impacts.”
- One study that was a part of the epidemiological review drew health impact conclusions from those living near development in the Amazon Basin, which doesn’t have the same access to quality healthcare or stringent regulations in place as LA County.
- Areas that don’t apply California’s leading safety, labor and environmental standards were referenced, and in fact given more weight by DPH than studies in California.
- These other areas like Colorado and Texas operate high-pressure gas wells unlike LA’s low-pressure oil wells, a significant and important difference.
- Most of these areas are generally rural, unlike the regulations already in place in urban drilling sites.
- Additionally, we were surprised to learn that DPH contacted the State of Maryland, which is not a major oil and gas producing state, and yet ignored the Cities of Long Beach and Signal Hill when inquiring about setbacks.

DPH excludes its own data and previous studies.

- The report never mentions DPH’s comprehensive 2011 Community Health Assessment of the Inglewood Field, which found the health of residents near the field to be similar to the health of residents throughout Los Angeles County.
- The Strike Team conducted an audit and inspection of 557 wells and 15 oil and gas facilities in Los Angeles County during 2017 and noted that health risks were considered low, however DPH largely ignored the Strike Team findings in its report and recommendations.

DPH recommends new regulations without addressing and enforcing current regulations in place.

- The report should have been more direct and candid about the extensive oversight already applied to oil and gas production in LA County.
- In Long Beach, for example, the City is the operator of the Wilmington Field, and 26 federal, state and local agencies oversee production from safety, drilling, facilities, chemical use and emissions control to emergency response.
- California regulators know more about local oil and gas operations than they do about almost any other type of facility or operation – whether private or governmental. In fact, in the report’s discussion of risks and chemicals, oil and gas operations are not exceptional. DPH could have substituted hospitals, universities, county and utility maintenance yards, water treatment and sanitation



facilities, airports, and bioscience, aerospace and manufacturing facilities for “oil and gas facilities” in the report and draw the same conclusions.

- These other facilities routinely use and store large quantities of chemicals that are potentially hazardous.
- Most of these facilities are regulated by fewer agencies than oil and gas facilities.
- Many of these are also closer to residences than oil and gas wells.

DPH did not leverage existing statewide funds to conduct an inclusive air monitoring study.

- The report references the California Air Resources Board’s community sampling program – called SNAPS or Study of Neighborhood Air Near Petroleum Sources. SNAPS is fully funded by taxes on industry like greenhouse gas allowances, and CARB is currently selecting statewide locations to sample this summer. We were surprised that DPH didn’t specifically request that CARB prioritize urban LA sites for air sampling, including the two case studies – AllenCo and Firmin Street – as well as Southern California’s largest open petroleum seep at the La Brea Tar Pits.
- Leveraging the State’s SNAPS program would be a quick way to:
 - Close data gaps identified by DPH in the next few months,
 - Reduce the speculative nature of the report’s comments on air quality and,
 - Identify what additional measures, if any, may actually be warranted to address emissions in the community, whatever the sources.
- We hope the County will constructively leverage the existing, fully-funded SNAPS program to answer questions posed by the DPH report and identify ways to improve air quality in urban areas, from whatever source, and use the SNAPS sampling data to prioritize verified emissions sources for additional review and mitigation.

The report closely evaluates and describes the Department’s concerns about two urban sites (AllenCo and Firmin Street) from 2013-2016, both of which were closed by regulatory agencies.

- Similar concerns were not found in the Strike Team’s inspections of hundreds of wells from other operators in 2017 by the Public Health, Regional Planning and Fire Departments.
- Even at AllenCo, DPH’s own investigation noted that about 46 percent of local residents were not even aware of their proximity to an oil production site, casting doubt on the level of disturbance from these operations. However, DPH’s report extrapolated the AllenCo and Firmin issues to all wells in urban residential areas County-wide.
- The County should focus on the dense urban sites where concerns have been raised, not try to cast a broad net over all wells across the County, and should expressly exclude oil and gas operations already closely regulated by cities like Long Beach and Signal Hill.



- Having the SNAPS results will help the County to prioritize resources and operations for further study, rather than applying a one-size-fits-all approach that the report seems to suggest and that runs counter to the Strike Team findings.

The report does not consider that the oil and gas operations, including the drilling of wells and construction of tanks and other facilities, preceded the building and of nearby structures.

- It is important to recognize that oil and gas wells and facilities did not move into the dense residential areas identified by the DPH, but rather housing was built around them as a result of land use decisions by the city.
- With the current regulations that are enforced and adhered to, the Strike Team concluded that “the risk levels were considered low for risks associated with hydrogen sulfide gas, operating pressure, and drilling frequency.

It is important to note that oil production has been part of the history of Los Angeles County for more than 100 years. The industry is regulated by more than 26 local, state and federal agencies, and operates under the strictest safety and environmental regulations in the world. Oil production continues to play an instrumental role in sustaining the region’s middle class, and generates more than \$1.8 billion for our local economy, including more than \$200 million in state and local taxes. That money is used on key public services including education and public health and safety.

Additionally, California produces only 28% of the oil and gas it consumes and imports the rest. New restrictions on oil and gas production in Los Angeles means California will need to tanker in more imported oil into its busy ports from foreign countries with abysmal human rights records and few environmental protections to support its energy demands.

On a final note, local oil and gas producers in LA County and City comply with extensive and stringent emission regulations enforced by the South Coast Air Quality Management District (SCAQMD). These regulations are specifically designed to protect public health and safety by controlling air emissions and odors for people living and working near production facilities. Given that these producers already abide by the already strictest environmental controls in the nation, the addition of these unnecessary further restrictive measures would most likely adversely impact their business and the local economy.

CIPA is committed to working with the city to bolster public understanding of our operations. CIPA represents the major oil producers with operations within the CITY/COUNTY including Sentinel Peak Resources, California Resources Corporation, E&B Natural Resources, Signal Hill Petroleum, Termo, Brea Canyon, Breitburn Energy, and Pacific Coast Energy Corporation.