****UPDATED****

April 21, 2015

TO: Members, Assembly Natural Resources Committee

FROM: California Chamber of Commerce
Associated Builders and Contractors of California
California Independent Petroleum Association
National Federation of Independent Businesses
Western State Petroleum Association

SUBJECT: AB 1490 (RENDON) OIL AND GAS WELL STIMULATION TREATMENTS: SEISMIC ACTIVITIES
HEARING SECHEDULED – APRIL 27, 2015
OPPOSE/JOB KILLER – AS INTRODUCED FEBRUARY 27, 2015

The California Chamber of Commerce and the above-listed organizations must **OPPOSE AB 1490 (Rendon**), which has been labeled as a **JOB KILLER**. This bill, as introduced, would ban wastewater disposal wells and all well stimulation treatments within 10 miles of a fault that has been active in the last 200 years. The bill would also prohibit well stimulation treatments (WST) following a magnitude 2.0 or greater earthquake on a well that is within a radius of an unspecified distance from the epicenter of the earthquake.

In essence, this bill attempts to create a *de facto* moratorium on the above activities until the Division of Oil, Gas, and Geothermal Resources (DOGGR) completes an evaluation and is satisfied that well stimulation "does not create a heightened risk of seismic activity." Using a precautionary principle approach to shut down or delay these legally permitted activities without a solid scientific basis will unnecessarily and substantially threaten our supplies of oil and natural gas, raising business costs, and harming California's economy as a whole.

Ban Not Justified Given State's Geology and Experience with Well Stimulation, Wastewater Disposal

AB 1490 ignores a longstanding track record of hydraulic fracturing and well stimulation activities in California and imposes a *de facto* moratorium simply because there may be well stimulation activity near a fault that has been active for the last 200 years. Hydraulic fracturing, wastewater disposal and WST have a long history in California and have been safely conducted in and around faults for many decades. In California, hydraulic fracturing has been used as a production stimulation method for more than 30 years with no reported damage to the environment.[1] In addition, over three-quarters of California's oil and gas is produced in Kern County, and roughly 96% of hydraulic fracturing in the state occurs in the southwestern portion of the San Joaquin Basin. There has not been any known scientific cases linking these activities in California to increased seismic events.

It is well understood that faults create structural traps for oil and gas, and are well represented in California oilfields. It's also important to remember that California's geology differs significantly from that of other states,

[1] www.conservation.ca.gov/dog/general_information/Pages/HydraulicFracturing.aspx. "Hydraulic Fracturing."

and as such, recent experiences with hydraulic fracturing in other states do not necessarily apply to California's hydraulic fracturing activities due to differences in geology of the petroleum reserves. Here, operators tend to drill shallower, largely vertical wells as opposed to horizontal, using well stimulation fluid at lower injected volumes and much less water per well.[2] As such, oil and gas operations in California are better able to retain so-called "fluid balance" in small areas, which means the impacts in California tend to differ significantly from those that may occur in other states.

Likewise, the National Academy of Sciences (NAS) has noted in a study that very few seismic events associated with wastewater disposal have occurred, and the majority of hydraulic fracturing and wastewater disposal wells do not pose a high risk for induced seismicity since the energy is not large enough to induce a seismic event.[3] Unfortunately, **AB 1490** uses limited seismic events that may have occurred in other midcontinent states (i.e. Ohio and Oklahoma) and makes general overall conclusions based on third party reports lacking adequate data to justify a *de facto* moratorium on well stimulation and wastewater disposal treatments in California. A coincidence or correlation of a seismic event near a well stimulation treatment or wastewater disposal activity does not equate to a casual connection. There are several other activities and industries that may inject wastewater near fault lines; however this bill specifically targets oil production and fracking without demonstrating a clear causal link between well stimulation and seismicity.

Existing Law, Independent Scientific Study Already Underway to Address Seismic-related Issues

AB 1490 duplicates existing regulations and disregards legislation enacted two years ago (SB 4 -Pavley, Chapter 313, Statutes of 2013), which established a comprehensive regulatory framework for WST, including the completion of an expansive scientific study to evaluate the hazards and risks associated with well stimulation treatments. Under existing SB 4 regulations, which were adopted in December 2014, the law ensures integrity of wells, well casings, and the geologic and hydrologic isolation of the oil and gas formation, including seismic activity during and after WST.

In addition, Section 1785.1 of the regulations requires that operators monitor the California Integrated Seismic Network for indication of an earthquake 2.7 magnitude or greater occurring within a radius of five times the Axial Dimension Stimulated Area of a well. If an earthquake of this magnitude does occur, DOGGR is required to conduct an evaluation of whether there is a causal connection between hydraulic fracturing and the earthquake, at which point the operation must cease.[4] Clearly, DOGGR is cognizant about any potential induced seismic issues and envisioned this when it adopted the SB 4 regulations. By reducing the earthquake magnitude to 2.0, **AB 1490** would only add to the administrative burden imposed on operators and DOGGR, thus causing more delays while scientific evaluations are undertaken.

Moreover, SB 4's initial phase of the independent scientific study (Volume 1) prepared by the California Council on Science and Technology (CCST) and the Lawrence Berkeley National Laboratory was released in January 2015. Volume 1 provides the factual basis describing the nature of (WST), how they are generally conducted and practiced in California, and where they have been and are being used for oil and gas production in the state. A final CCST report (Volume 2 and Volume 3) will be released in July 2015 following adequate peer review. The final report will review potential environmental impacts of WST and present specific case studies to assess potential environmental issues, including any potential seismic issues associated with WST.[5]

The CCST's findings and recommendations should be given adequate time to proceed without abrupt and substantial modifications such as those imposed by **AB 1490**.

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[2] www.ccst.us/publications/2015/2015SB4-v1ES.pdf, "Well Stimulation Technologies and Their Past, Present, and Potential Future Use in California," CCST Volume 1 Executive Summary, page iv (January 2015).
[3] www.nap.edu/openbook.php?record_id=13355&page=1, "Induced Seismicity Potential in Energy Technologies," National Acadamies Press (2013).
[4] www.conservation.ca.gov/index/Documents/12-30-14%20Final%20Text%2020of%204%20WST%20Regulations.pdf, SB4 Well Stimulation Treatment Regulations (December 31, 2014).
[5] http://www.ccst.us/projects/hydraulic_fracturing_public/SB4.php, "Well Stimulation in California," CCST Volume 2 Project Description.

Conclusion

The mere proximity of an active fault that may be within 10 miles of a well stimulation treatment or wastewater disposal activity should not be the scientific basis for imposing a *de facto* moratorium on such activity. The presence of a fault near these activities does not necessarily imply an increased potential for induced seismicity nor increased risk to groundwater. Decades of disposal operations involving many industries have demonstrated that when properly planned, operated, and monitored, fluid disposal wells are safe and any potential concerns about risks can be managed.

Going forward, there is a regulatory process in place to address these concerns which is why the existing SB 4 regulations, coupled with the independent scientific study, should be more than adequate to address concerns about groundwater, potential seismicity and any relation to WST or wastewater disposal. However, by imposing a ban or delay of these legally permitted activities without demonstrating a causal link to seismicity, the bill will only increase business costs, hamper California's economy and deprive our state of much needed fuel, jobs and tax revenues.

For these reasons, we must **OPPOSE AB 1490 (Rendon)**.

cc: Martha Guzman-Aceves, Office of the Governor
The Honorable Anthony Rendon
Lawrence Lingbloom, Assembly Natural Resources Committee
John Kennedy, Assembly Republican Caucus
District Office, Members, Assembly Natural Resources Committee

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