

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Draft Staff Report Proposed Amended Rule 1148.2 – Notification and Reporting Requirements for Oil and Gas Wells and Chemical Suppliers

January 2023

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EXECUTIVE SUMMARY

The South Coast Air Quality Management District (South Coast AQMD) staff proposes to modify requirements in Rule 1148.2 – Notification and Reporting Requirements for Oil and Gas Wells and Chemical Suppliers (Rule 1148.2) in response to concerns raised by communities located in the Wilmington, Carson, West Long Beach (WCWLB) area and South Los Angeles (SLA) area. Rule 1148.2 applies to over 300 operators of onshore oil or gas wells located within the jurisdiction of the South Coast AQMD that conduct oil and gas well drilling, well completion, well rework, and well injection activities. Proposed Amended Rule (PAR) 1148.2 will do the following: 1) add four new definitions to further clarify the amendments being proposed, 2) revise the notification time from no less than 48 hours to no less than 72 hours prior to the start of drilling, well completion, rework or acidizing of an onshore oil, gas, or injection well, 3) add chemical treatment of quantities of twenty gallons or more to the notification requirements, 4) add an alternative process if the Notification portal is inaccessible, 5) reduce the number of extensions from five to three, 6) add workover rig operations to the notification requirements, 7) add injection well acidizing to the notification requirements, 8) add written notification (by U.S. mail or by personal service) and recording requirements for acidizing jobs near sensitive receptors, and 9) delete an obsolete reporting requirement. Additional minor changes to rule language will be made for consistency and clarity.

CHAPTER 1: BACKGROUND

INTRODUCTION

BACKGROUND

AFFECTED FACILITIES

PUBLIC PROCESS

INTRODUCTION

Rule 1148.2 – Notification and Reporting Requirements for Oil and Gas Wells and Chemical Suppliers establishes requirements for operators of oil and gas wells to notify the Executive Officer of operations involving well drilling, well reworks and well completions, such as hydraulic fracturing, acidizing, and gravel packing. Rule 1148.2 also requires suppliers of chemicals that are used in the aforementioned well activities to provide information on chemical use. Well activity occurs at multiple sites throughout the South Coast AQMD and may be found near residential communities. Concerns have been raised by AB 617 communities located in the Wilmington, Carson, West Long Beach (WCWLB) area and South Los Angeles (SLA) area about the need for additional, timely and reliable information related to well activities not previously regulated by Rule 1148.2. In response, staff proposes to modify requirements in Rule 1148.2 to add notification requirements for injection well acidizing work and for the use of workover rigs engaged in general maintenance activity. Staff also proposes to increase the notification time and to reduce the number of allowable extensions. Additional definitions and minor changes to rule language are made for consistency and clarity.

BACKGROUND

Rule 1148.2 was adopted on April 5, 2013, to better quantify potential air emissions from well development activities in response to concerns regarding hydraulic fracturing. Currently, the rule requires the operator to notify South Coast AQMD prior to the start of drilling, well completion, or rework of an onshore oil or gas well. The rule includes requirements for well operators and chemical suppliers to report information on the chemical composition of trade name products used during well event activity. Under the current rule, chemical suppliers provide well operators with the identities of the trade name products, the amount of each trade name product and purpose for each chemical ingredient used in well drilling, well completion, and well stimulation fluids; as well as chemical identities, Chemical Abstract Service (CAS) numbers, and maximum concentration in percent by mass of each chemical ingredient used in the trade name product.

Rule 1148.2 was amended September 4, 2015, to: 1) disaggregate the reporting of the trade name product from the chemical ingredients within the product; 2) no longer require the reporting of the chemical mass concentration within the trade name product, and instead require the mass of each chemical ingredient; and 3) remain consistent with Senate Bill 4 Well Stimulation Treatment Regulations, making non-trade secret information available to the public on South Coast AQMD's website. It was expected that by disaggregating the trade name product from the chemical ingredient, suppliers would make fewer trade secret claims, providing greater transparency to the public regarding the chemical ingredients and their mass.

AB 617 and Concerns with Oil and Gas Well Activities

In 2017, Governor Brown signed Assembly Bill (AB) 617 (C. Garcia, Chapter 136, Statutes of 2017) to develop a new community-focused program to potentially reduce exposure to air pollution

and preserve public health. AB 617 directed the California Air Resources Board (CARB) and all local air districts, including the South Coast AQMD, to enact measures to protect communities disproportionately impacted by air pollution. On September 27, 2018, the California Air Resources Board (CARB) designated 10 communities across the state to implement community plans for the first year of the AB 617 program. Local air districts were tasked with developing and implementing community emissions reduction and community air monitoring plans in partnership with residents and community stakeholders. The Community Air Monitoring Plan (CAMP) includes actions to enhance the understanding of air pollution in the designated communities and to support effective implementation of the Community Emissions Reduction Plan (CERP). A CERP provides a blueprint for achieving air pollution emission and exposure reductions, addressing the community's highest air quality priorities. The CERP includes actions to reduce emissions and/or exposures in partnership with community stakeholders.

During their CERP development process, the WCWLB and SLA communities raised numerous concerns related to oil and gas well activity and current South Coast AQMD Rules. Specifically, community stakeholders expressed concerns that although Rule 1148.2 requires operators to notify the Executive Officer for activities related to well drilling, well reworks and well completions, other activities with potential emission sources were not being disclosed. For example, community stakeholders noted that acidizing work for water injection wells and the use of diesel workover rigs used for general maintenance activities were not being reported and requested that such activities be included as part of the notification requirement. In addition, any chemicals used in the acidizing of water injection wells should be reported similarly to other regulated activities. Lastly, stakeholders requested that chemical usage be consolidated and reported on an annual basis.

The CERP for WCWLB listed four main air quality priorities related to oil drilling and production. These priorities focused on:

- The need for near-facility air measurements and inspections to address leaks and odors from oil drilling and production;
- Improved public outreach and notifications;
- Additional requirements for oil production sites to submit either a chemical survey or annual report to develop an accurate inventory of emissions and chemicals used; and
- The use of zero-emission technology at drilling sites.

The CERP for SLA also listed multiple priorities related to oil drilling and production. These priorities focused on:

- Identification of locations of concern, characterize emissions, and identify potential elevated emissions through air measurement surveys around oil drilling sites;
- Determination of which oil well sites and activities may require additional monitoring;
- Collaboration with appropriate agencies when issues are identified at oil and gas facilities during inspection sweeps to ensure these facilities follow rules and regulations from

appropriate agencies, in particular those related to land-use, public health, and abandoned wells;

- Information of enforcement findings and enforcement actions taken at oil and gas facilities, in particular those related to odors and fugitive emissions and CARB regulations;
- Reduction emissions and exposure to oil and gas operations through rule amendments to the Rule 1148 Series;
- Support of community members with conducting community air monitoring and understanding data;
- Information of other agencies' authority and new or ongoing projects (e.g., future regulations or ordinances) related to the oil and gas industry;
- Incentivization funding opportunities for best management practices and/or installation of emission reduction technologies at oil and gas facilities.

Note that some of these community concerns will require amending Rule 1148.1 such as air monitoring, rule amendments, zero-emission technology at drilling sites, and installation of emission reduction technologies. Rule 1148.1 – Oil and Gas Production Wells is a rule whose purpose is to reduce volatile organic compounds and other emissions from the operation and maintenance of wellheads, well cellars, and handling of produced gas at oil and gas production facilities. In addition, Rule 1148.1 has requirements for signage requirements for reporting odor complaints and requirements to take steps to prevent public nuisance caused by odors.

AFFECTED FACILITIES

Proposed Amended Rule 1148.2 affects any operator of an onshore oil or gas well located within the jurisdiction of the South Coast AQMD that is conducting oil and gas well drilling, well completion, well rework, and well injection activities. There are approximately three hundred and seven facilities potentially affected by this amendment.

PUBLIC PROCESS

The development of PAR 1148.2 was conducted through a public process. Three Working Group Meetings were held on: April 14, 2022, June 8, 2022, and August 10, 2022. In addition, staff participated in AB 617 meetings to notify and update stakeholders of the rule development process. Stakeholders include representatives from the community, environmental organizations, industry representatives, government agencies, and other representatives. Staff also met individually with industry stakeholders and visited sites affected by the rule development process. Working group meeting notices were provided to operators, suppliers and participants of AB 617 meetings that signed up for notifications of AB 617 updates or oil and gas well rule development. A Public Workshop meeting was held on September 1, 2022 with the comment period closing on September 15, 2022. At the Public Workshop meeting, staff presented the proposed rule to the general public and stakeholders, and received comments related to the proposal. Two Public Consultation

Meetings were held on September 29, 2022, and December 21, 2022, to address additional proposed amendments.

CHAPTER 2: PROPOSED AMENDMENTS TO RULE 1148.2

INTRODUCTION

PROPOSED AMENDMENTS TO RULE 1148.2

ADDITIONAL CONSIDERATIONS

INTRODUCTION

Staff participated in multiple meetings with WCWLB and SLA community residents and listened to their requests for additional notification and reporting requirements. Staff also met and discussed these requests with various industry stakeholders. The following proposals address the concerns raised in these communities and provide an avenue for industry to comply within the existing notification structure.

PROPOSED AMENDMENTS TO RULE 1148.2

Proposed Amended Rule 1148.2 proposes to revise the notification requirements for drilling, well rework, and well completion by including injection well acidizing, workover rig operations, and chemical treatments. In addition, PAR will include four new definitions. PAR 1148.2 will: 1) add four new definitions to further clarify the amendments being proposed, 2) revise the notification time from no less than 48 hours to no less than 72 hours prior to the start of drilling, well completion, rework or acidizing of an onshore oil, gas, or injection well, 3) add chemical treatment of quantities of twenty gallons or more to the notification requirements, 4) add an alternative process if the Notification portal is inaccessible, 5) reduce the number of extensions from five to three, 6) add workover rig operations to the notification requirements, 7) add injection well acidizing to the notification requirements, 8) add written notification (by U.S. mail or by personal service) and recording requirements for acidizing jobs near sensitive receptors, and 9) delete an obsolete reporting requirement.

Addition of New Definitions

The definitions listed below are being added due to the proposed amendments to Rule 1148.2, including the addition of injection wells and workover rigs to the notification requirements. These definitions will assist in clarifying when a notification is required.

Four definitions are added to provide clarification of terms:

- **CHEMICAL TREATMENT** means the process of injecting chemicals, including corrosion or paraffin inhibitors, to prevent corrosion or paraffin deposits of pipes and tubing into an oil and gas or injection well or pipelines. Chemicals used for acidizing are not applicable in this definition.

PAR 1148.2 adds a notification requirement for chemical treatments of quantities of twenty gallons or more per well per day, excluding water. Staff incorporated a new definition for chemical treatments to address community concerns regarding “treater” trucks that routinely visit oil production sites to conduct maintenance on wells, and to differentiate it from the acidizing of production or injection wells. Staff noted that the volume of chemicals used for each chemical treatment may range from 1 to 10 gallons per day based on the water produced by a well and the integrity of the well casing determined by sampling of iron count in the sample. Staff noted that the more a well produces water, the more corrosion is observed which prompts the frequency of such treatments. Treatments may be required once per quarter, per

month, per week, daily, or continuous and it is dependent on how much iron is detected in the produced mix of oil and water.

- **INJECTION WELL** means a well used to place fluid underground into porous geologic formations.

PAR 1148.2 adds a notification for acidizing activities at injection wells. Staff incorporated a new definition for an injection well since it has not been previously defined. The definition is obtained from the U.S. EPA website, *General Information About Injection Wells*.¹

- **WELL MAINTENANCE ACTIVITY** means general well servicing such as rod or tubing replacement, and other maintenance that is not already covered by another definition. Acidizing would not be covered by this definition.

PAR 1148.2 adds a definition for well maintenance activity. Staff distinguishes this activity from when chemical work for acidizing is planned. This activity may incorporate the use of a diesel engine to insert or remove rod and tubing into a well. This definition was added to further clarify what constitutes a workover rig operation for the sake of notification requirements.

- **WORKOVER RIG** means mobile self-propelled equipment used to perform one or more operations, such as a well maintenance activity, well completion, or rework.

PAR 1148.2 adds a definition to describe what a workover rig is. Staff developed this definition by researching various oil field industry websites that listed workover rigs, and from first-hand observations of workover rigs used in the local oil field production facilities.

Revision of Notification Time from No Less than 48 Hours to No Less than 72 Hours

Staff recommends changing the minimum time to submit a notification from no less than 48 hours to no less than 72 hours. This would apply to notifications related to drilling, well completion, rework or acidizing of an onshore oil, gas, or injection well. Community stakeholders in SLA expressed concerns that if a notice were made on a Friday, then the local schools or community members may not receive the notice until the following Monday. This would allow for sufficient advanced notice and enable community members time to make any efforts to mitigate potential impacts of the well activity.

Under (d)(1) within PAR 1148.2, the proposed amendment is listed below:

The operator of an onshore oil or gas well shall electronically notify the Executive Officer, using a format approved by the Executive Officer, of the following information, no more than ten (10) calendar days and no less than 72 hours prior to the start of drilling, well completion, or rework of an onshore oil or gas well.

¹ U.S. EPA Website: <https://www.epa.gov/uic/general-information-about-injection-wells#:~:text=Regulating%20agency-Definition%20of%20injection%20well,or%20water%20mixed%20with%20chemicals>.

Addition of Chemical Treatment of Wells

Community stakeholders have expressed concerns over their observations of trucks at oil and gas production sites that may be conducting acidizing jobs without properly filing a notification for such activity. Staff conducted multiple site visits to investigate this concern. Staff discovered small trucks known as “treater” or “shot” trucks being used to inject chemicals into a well or the piping connected from the well to downstream equipment such as storage tanks. Standard required practice is to periodically apply chemical treatment (e.g., polymers) to the well casing to ensure stability and prevent corrosion that could pose damage to surrounding earth and groundwater. In addition, other chemical treatments serve to minimize or prevent paraffin or wax deposits, and emulsifiers to bind the oil and water. Staff gathered information on these treater trucks, the type of chemicals used, the quantities of chemicals used, frequency of well servicing using these chemicals. Staff also reviewed Safety Data Sheets, and witnessed live chemical injections also known as treatments.

Treater trucks are equipped with chemical compartments that are about fifty gallons in size per compartment (see Figure 1). These compartments can hold corrosion inhibitors, emulsifiers, polymers, etc. In addition, these treater trucks use a larger compartment to store produced water. When chemicals are injected, the produced water is used to flush the material into the well or the piping. Chemicals are delivered through connected hoses via a closed system, where chemicals are delivered from the truck, through a hose, and then into the well or piping (see Figure 2) in an enclosed system that prevents emissions into the ambient air. The purpose of this activity is to treat the piping such as to reduce corrosion and other similar effects.

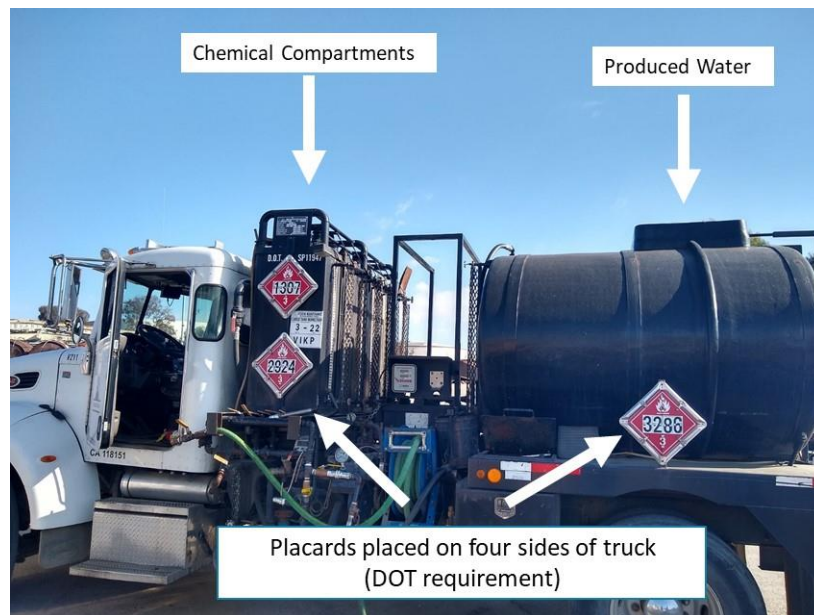


Figure 1: Compartments Attached to a Treater Truck



Figure 2: Chemical Delivery from a Treater Truck to a Well

Staff found that besides the use of corrosion inhibitors, two other types of chemicals are routinely used at oil production sites: emulsifiers and polymers. Emulsifiers are used to combine oil and water. A review of a safety data sheet for a corrosion inhibitor and an emulsifier found that naphtha is used as the main ingredient and is a solvent used in various industries. Polymers are used to separate oil and water and use sodium salt as its main component. Staff learned that these maintenance activities on wells by treater trucks are routine and vital in order to keep the wells in good operating condition to minimize potential leakage both into the air and into the groundwater.

Staff believes that there may have been a misunderstanding by community stakeholders on the quantity and type of material delivered by treater trucks. Specifically, community stakeholders believed that the larger container installed on treater trucks stored larger quantities of chemicals like acid. As discussed earlier, staff found that the larger compartment actually stores process water that is used to assist in the treatment process. However, staff noted that on some treater trucks, Department of Transportation (DOT) placarding was observed placed on the larger compartment. Staff learned that the DOT requires signage to be placed on all four sides of truck. In some cases, as seen on Figure 1, signage may be placed on the larger compartment as a matter of convenience to satisfy the DOT requirement. In addition, actual treatments per well are expected to take approximately 10 – 20 minutes to complete. In some observed cases, a treater truck may service more than one well per visit, so a treater truck may be onsite longer than 20 minutes.

The frequency and volume of corrosion inhibitor usage is determined by sampling for iron in the produced mixture of oil and water. The amount of iron in a sample is an indication of how much corrosion is occurring. The more that water is produced by a well, the more corrosion is observed to take place – water is a corrosive medium. Thus, to counteract the effects of corrosion or to mitigate it, chemical treatments requiring corrosion inhibitors are used. In discussions with operators, staff learned that usage varies widely with different sized production wells, location and

age of the formation, and the need for treatments. Treatments could vary from one to ten gallons per day where treatment is done once quarterly, monthly, or weekly and delivered via injection from a portable treater truck.

Staff recommends a threshold of twenty gallons before filing a notification when chemicals such as corrosion inhibitors, emulsifiers, polymers are injected into the well or associated piping. Staff considers that twenty gallons is a reasonable threshold which balances a need to notify the public of larger chemical treatment activities but avoiding an overload of notifications for small, quicker standard required treatments. This quantity also allows a measure of operational flexibility to allow an operator to adjust treatments in response to conditions that may require a small increase in treatment..

Under (d)(1) within PAR 1148.2, the proposed amendment is listed below:

... prior to the start of drilling, well completion, rework of an onshore oil and gas well, or conducting chemical treatment in quantities of twenty gallons or more per day, excluding water.

Addition of an Alternative Process if the Notification Portal is Inaccessible

During the rulemaking process, staff heard from stakeholders that at times, they were not able to submit an electronic notification due to unknown problems with the Rule 1148.2 Notification portal. They stated that they would have to contact South Coast AQMD staff directly in order to work out connectivity or reception issues. To address these concerns, staff has added proposed rule language under section (d)(1) to have an operator call 1-800-CUT-SMOG and to provide information required under subparagraphs (d)(1)(A) through (d)(1)(E) whenever the Notification portal is inaccessible. This proposed alternative process is meant only to be used when the notification portal is inaccessible and not meant as an option to be used when the portal is operational and accessible.

Reduction of the Number of Extensions from Five to Three

Staff recommends changing the number of allowable extensions from five to three. This would apply to notifications related to drilling, well completion, rework or acidizing of an onshore oil, gas, or injection well that are anticipated to occur after the originally projected 24-hour window of the start date and time. Community stakeholders in SLA expressed concerns that it is difficult to plan to vacate the area during one of the aforementioned notifications given the current high number of allowable extensions.

Under (d)(3)(C) within PAR 1148.2, the proposed amendment is listed below:

If the start date and time of a notification for the drilling, well completion, well rework, or chemical treatment of an onshore oil or gas well specified in a notification submitted to the Executive Officer pursuant to subparagraph (d)(1)(E) is anticipated to occur after the originally projected 24-hour window of the start date and time, the operator shall

electronically notify the Executive Officer of an extension provided that: no more than three successive 24-hour extensions are requested.

Addition of Notification Requirements for Use of Workover Rigs

The AB 617 SLA CERP listed workover rig operations as a community concern and requested that the activity of workover rigs used for general maintenance be included in notification requirements. Workover rigs, as shown in Figure 3, are mobile self-propelled pieces of equipment used for drilling, well rework, and well completion for which a notification is already required. Typically, workover rigs use a diesel engine as a source of power to perform work on wells. The rigs can be used for general maintenance activities where well rods and tubing are inserted or removed. Community stakeholders have expressed concerns that emissions emanating from diesel engines on a workover rig may adversely impact them. Diesel exhaust emissions have been found to be carcinogenic and produce both NO_x and particulate matter. Diesel exhaust emissions have also been a source of nuisance complaints from impacted communities. General maintenance activities are currently not subject to notification requirements. Staff has evaluated the request from community stakeholders and proposes an amendment to add notification requirements for the use of workover rigs where no notification was previously required.

Staff notes that workover rig operations for general well servicing are dynamic and unexpected maintenance issues may arise without much notice to the operator. For example, a rod in a well may have an operational issue that is identified during a night shift. The operator then may need to schedule a workover rig to come to the well as soon as the morning shift is on site to effect the repair. To provide operational flexibility, staff proposes a minimum of a 24-hour notification requirement for workover rig activity. Note that the 10-day to 72-hour (proposed) notification for oil and gas well drilling, well completion, rework, and injection well acidizing is not affected by this.



Figure 3: A Workover Rig in the Field

To encourage the use of the lowest pollutant emitting diesel engines that are currently commercially available, workover rigs that meet Tier 4 – Final emission standards of 40 CFR Part

1039 Section 1039 Section 1039.101 Table 1 or that are powered by a non-combustion source (e.g., electrically-powered, fuel cell, solar energy, etc.) will not require notification. Use of workover rigs with diesel engines that do not meet Tier 4 – Final emissions standards, including engines that connect to and assist the workover rig with any well activity will require notification of such activity, including activity for general maintenance.

Staff has received stakeholder feedback regarding the staffing required to process additional notification submittals. The concern expressed is that with the additional notification burden, operators will need to hire and train more staff to accommodate a workload increase. Under the current economic environment, it may be difficult to hire and train additional people within a short period of time. To address this concern, staff has added a proposed effective start date of July 1, 2023 for the addition of the use of workover rigs to the notification requirements.

Under (d)(6) within PAR 1148.2, the proposed amendment is listed below:

Effective July 1, 2023, the operator of a workover rig operating at sites where the engine does not meet a minimum Tier 4 – Final emissions standards of 40 CFR Part 1039 Section 1039.101 Table 1, or where the engine is not powered by a non-combustion source, shall electronically notify the Executive Officer no more than 10 calendar days and no less than 24 hours prior to the use of the workover rig on either an onshore oil or gas well, or an injection well. This engine standard shall also apply to any engine that connects to, and assists, the workover rig with any well activity.

Addition of Notification Requirements for the Acidizing of Injection Wells

The AB 617 SLA CERP listed acidizing of injection wells as a community concern. An injection well is used to place fluid underground into porous geologic formations. These underground formations may range from deep sandstone or limestone, to a shallow soil layer. Injected fluids may include water, wastewater, brine (salt water), or water mixed with chemicals.² Figure 4 shows a typical cycle for an oil production well and associated injection well. As shown, an oil and water mixture is pulled out of the ground by a production oil production well. The mixture is then pumped to a separator tank where oil and water are allowed to decant into two immiscible liquids with oil floating on top of the water. The oil is taken off for further processing whereas the water is pumped back into the ground.

Acidizing of well is a periodic maintenance activity to remove scale buildup in injection wells. Over time, scale forms inside injection wells which can then lead to higher pressure. The higher pressure increases the work that a pump is required to push up against as it tries to inject liquid into the well. Scale buildup may take more than two years for pump performance degradation to occur that would then necessitate the acidization of the injection well to dissolve and clear the scale.

Rule 1148.2 currently requires an operator of an oil or gas well to notify the South Coast AQMD when an oil or gas well undergoes an acidization activity. However, a notification for acidizing of

² Source: <https://www.epa.gov/uic/general-information-about-injection-wells>.

an injection well is not currently required. Community stakeholders expressed concern that chemicals being used in the acidization of an injection well may create a hazard where a spill or an air-borne release may occur. Because of the potential hazards associated with this activity, community stakeholders requested that the rule be amended so that notification requirements for the acidizing of injection wells be added.

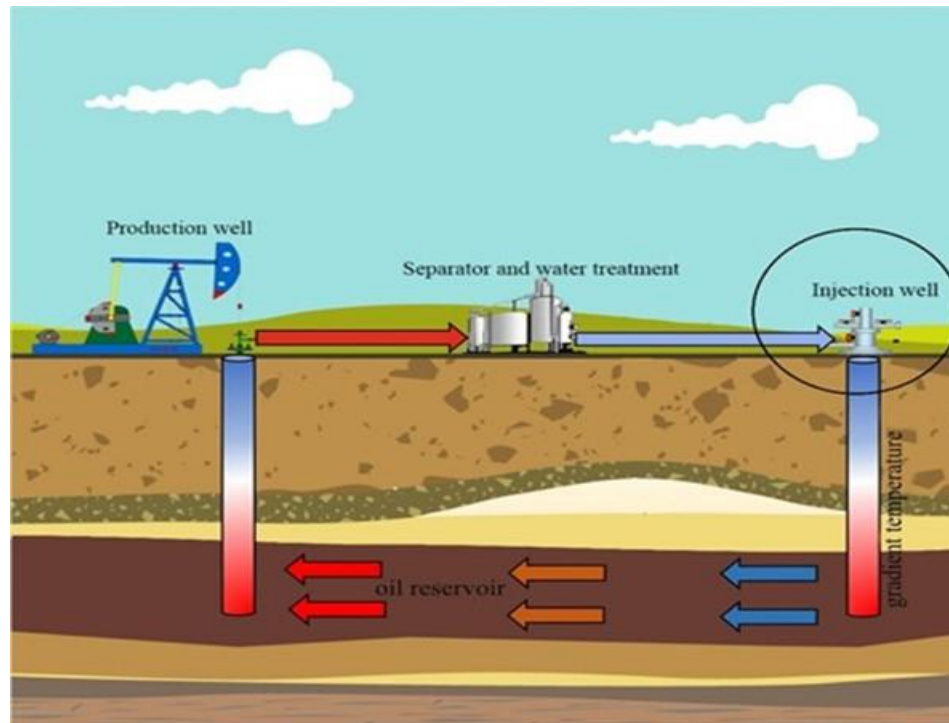


Figure 4: Typical Cycle of Oil Production and Water Reinjection

Staff has evaluated the request from community stakeholders and proposes an amendment to add notification requirements for the acidizing of injection wells to the rule. This addition to the notification requirements addresses potential chemical spills used in the acidizing of injection wells and possible impacts to the local community.

Staff has received stakeholder feedback regarding the staffing required to process additional notification submittals. Stakeholders are concerned that with the additional required notifications, operators will need to hire and train more staff to accommodate a workload increase. Under the current economic environment, it may be difficult to hire and train additional people within a short period of time. To address this concern, staff has added a proposed effective start date of July 1, 2023 for the addition of acidizing of injections wells to the notification requirements.

Under (d)(9) within PAR 1148.2, the proposed amendment is listed below:

Effective July 1, 2023, an operator conducting an acidizing of an injection well at an oil and gas production site shall be subject to the requirements of paragraphs (d)(1) through (d)(7).

Addition of Written Notification Requirements for Acidizing Jobs

Another community concern that was raised prior to the Public Hearing on November 4, 2022, also causing postponement, was a request to have written notification of acidizing jobs to be distributed. Community stakeholders expressed concern that members of the community may not have access to electronic notifications making them unaware of upcoming acidizing jobs. Community stakeholders requested to have written notifications be sent and be postmarked at least ten days prior to a planned acidizing job so that members of the community may have time to decide any course of action to minimize potential exposure from the acidizing work.

Staff is proposing distribution of written notifications to sensitive receptors located within 1,500 feet of a well, when an acidizing job on an oil and gas or injection well is to take place. Staff notes that based on air dispersion modeling and sampling performed by the South Coast AQMD, emission levels are seen to drop off between 700 to 800 feet from a source³. By setting a radius that is double that of 700 to 800 feet addresses notification concerns of potential impacts to the community.

Several options for distribution were considered. The use of the phrase “written notifications” refers to printed notifications that can be either mailed via the U.S. mail or equivalent service or hand delivered. *Written notification* is not to be construed as equivalent to email distribution or other electronic delivery. Verification of written notification can be made through a certificate of mailing, return receipts, invoices for mail services, or other equivalent record.

Staff also looked at the potential costs that an operator would incur for this written notification requirement. Staff used as its cost basis \$2.61 per mailing address.⁴ In highly dense urban areas, staff reviewed aerial mapping and estimated that approximately 2500 unique addresses/recipients may lie within a 1500-foot radius of a well. For its dataset, staff used the number of maintenance acidizing notifications which identified sensitive receptors, averaged over two years between 2018-2019, as representative of pre-Covid activity – 99. Then, staff factored in an anticipated increase of 50% more notifications due to the inclusion of injection wells. Additional assumptions included a factor of 15% for wells located in a high urban setting with a densely populated area versus a moderate setting and included a factor assuming that mailing cost for a moderate setting is about one-third the cost compared to high urban setting. Finally, costs were adjusted as a function of radius squared, using 1,500 feet as a basis, to provide a comparison of what costs could be expected if a radius of either 1,000 feet or 3,200 feet were utilized (see Table 1).

During the rulemaking process, staff considered whether written notifications would be required for acidizing events taking place on an island within waters subject to the jurisdiction of the South Coast AQMD. Based on the location of the wells in relation to possible sensitive receptors, staff

³ South Coast AQMD presentation on Ethylene Oxide sampling as part of Parter Medical Products, Inc. Emissions Investigation in Carson
<http://www.aqmd.gov/docs/default-source/ab-617-ab-134/steering-committees/wilmington/presentation-aug25-2022.pdf?sfvrsn=8>

⁴ BTC published rates: <https://planning.lacity.org/odocument/cbc94bf6-6ea7-4e8b-82a9-8c19a1087736/Mailing%20Procedures%20Instructions.pdf>

considered the current electronic notification system to be adequate at alerting the community of such acidizing events.

Type of Facility Setting	Mailing Costs for Proposed Distances at Notification Radius		
	1000 ft	1500 ft	3200 ft
A – High Urban Setting (cost per notification event)	\$2,900	\$6,525	\$29,696
B – Moderate Urban Setting (cost per notification event)	\$967	\$2,175	\$9,899
Anticipated Costs for Mailings Related to Acidizing Jobs Near Sensitive (annually)	\$190,000	\$420,000	\$1,920,000

Under (d)(10) within PAR 1148.2, the proposed amendment is listed below:

Effective July 1, 2023, for oil and gas or injection wells located within 1,500 feet of a sensitive receptor, the operator shall serve by U.S. mail or by personal service a written notification to all sensitive receptors at least ten days prior to the commencement of an acidizing event with the following information in both English and Spanish. For non-residential properties with a property manager/administrator (such as hospitals or schools), notification to the property manager/administrator is sufficient. This subsection shall not apply to wells operated on islands located in either the Southern California Coastal Waters or Outer Continental Shelf Waters. Email or electronic service is insufficient for this written notification.

- (A) Notification shall include, at a minimum, the following information:
- (i) name and contact information of the owner and operator of the subject well(s);
 - (ii) well name(s) and API well number(s) (if available);
 - (iii) geographical coordinates of the subject well(s); and
 - (iv) projected start date(s) and time(s).
- (B) The responsible person(s) for the written notification of an acidizing event shall maintain records demonstrating compliance with the notification requirements of subdivision (d)(10), including:
- (i) a copy of the notification letter and a list of addresses notified;
 - (ii) notification method used such as hand delivery, or mail service; and
 - (iii) proof of any mailed notification such as certificate of mailing, return receipts, invoices for mail services, and emails.
- (C) Records shall be retained for a minimum of three years by the responsible operator for the written notification of an acidizing event and shall be made available to the Executive Officer upon request.

Deletion of an Obsolete Reporting Requirement

Rule 1148.2 (e)(1) required that beginning June 4, 2013 and until April 5, 2015, for each well, the operator of an onshore oil and gas well shall electronically submit a report to the Executive Officer that would be used for data gathering purposes. Staff deleted this paragraph of the rule since the reporting timeframe has expired. Following the deletion of this paragraph, staff updated the rule numbering to account for this change.

ADDITIONAL CONSIDERATIONS*Enhancements to the Rule 1148.2 Notification Portal*

During the rulemaking development, stakeholders requested enhancements to the notification process to allow users to be notified via text and to limit notifications to specific geographical areas. Staff has determined that implementing text notifications and restricting notifications to a geographical area is not feasible due to current software limitations; however, notifications can still be received via email. In addition, community stakeholders requested to have more information about the chemicals being used during activities subject to this rule. Staff will update the electronic portal and provide a link to the Office of Environmental Health Hazard Assessment (OEHHA) on the notifications so that interested parties can learn more about the chemicals being used in the notified activity.

Removal of 1500-foot Sensitive Receptor Exclusion

Staff had initially proposed adding a 1500-foot sensitive receptor exclusion in which only well activities that are within 1,500 feet of a sensitive receptor would require having a notification submitted. Stakeholders expressed concerns regarding this proposal such that the rule may be regressive relative to the current rule which does not have a 1500-foot sensitive receptor exclusion. Notifications of well activities will continue to apply regardless of distance to nearest sensitive receptor.

Provide Access to Annual Chemical Usage at Oil and Gas Facilities

During the rulemaking development, community stakeholders requested that an annual report that includes the amounts of chemicals used at oil and gas facilities be made available. Staff notes that chemical usage information is inputted by the operators per event and can be made available through the database which receives this data. Staff is working to modify the Notification portal to provide this service.

CHAPTER 3: IMPACT ASSESSMENTS

INTRODUCTION

EMISSION REDUCTIONS

COST-EFFECTIVENESS

SOCIOECONOMIC IMPACT ASSESSMENT

CALIFORNIA ENVIRONMENTAL QUALITY ACT ANALYSIS

**DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY
CODE SECTION 40727**

INCREMENTAL COST-EFFECTIVENESS

COMPARATIVE ANALYSIS

INTRODUCTION

In general, staff notes that no emissions reductions will occur as a result of this amendment. Any additional financial burden associated with the proposed amendment by industry stakeholders is expected to be minimal.

EMISSION REDUCTIONS

Rule 1148.2 is designed as a notification and reporting tool for oil- and gas-related activities. As such, no emission reductions are expected.

COST-EFFECTIVENESS

Since no emission reductions are expected, a cost-effectiveness analysis was not required. Staff met with industry stakeholders and learned that any additional reporting via the Rule 1148.2 reporting portal can be accomplished within the existing infrastructure that is in place. Staff anticipates that there may be over three-hundred notifications annually due to injection well acidizing activity and chemical treatments, with an estimated time of a half hour to create each notification and to follow-up with usage information. Additional labor related to data input is expected should an operator choose to use a non-Tier 4 final engine to conduct general maintenance involving a workover rig. However, staff notes that there is currently existing engine technology such that the use of such equipment is at the discretion of the operator.

Staff recognizes that the proposed addition of a mailing requirement for acidizing jobs may result in significant costs incurred by operators of wells conducting such work and may require additional time from the operator's staff to complete the notification processing. Staff estimates that the cost for mailing out notifications to sensitive receptors located within a 1500-foot radius of an acidizing job may be as high as \$420,000 for the noticing. This amount may vary depending on actual activity and notices.

SOCIOECONOMIC IMPACT ASSESSMENT

The proposed amendments to Rule 1148.2 are not expected to result in emission reductions and will not significantly affect air quality or emissions limitations. Therefore, a socioeconomic impact assessment was not required under California Health and Safety Code Sections 40440.8 and 40728.5. However, staff has performed a socioeconomic impact assessment to identify potential impacts that the costs associated with the rule amendment may incur and the assessment will be included in the final report.

CALIFORNIA ENVIRONMENTAL QUALITY ACT ANALYSIS

Pursuant to the California Environmental Quality Act (CEQA) Guidelines Sections 15002(k) and 15061, the proposed project (PAR 1148.2) is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3). A Notice of Exemption has been prepared pursuant to CEQA Guidelines Section 15062 and if PAR 1148.2 is approved, the Notice of Exemption will be filed for posting with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino counties, and with the State Clearinghouse of the Governor's Office of Planning and Research.

DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727

Requirements to Make Findings

California Health & Safety Code Section 40727 requires that the Board make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the staff report. In order to determine compliance with Sections 40727 and 40727.2, a written analysis is required comparing the proposed rule with existing regulations.

The draft findings are as follows:

Necessity

PAR 1148.2 is necessary to address concerns raised by AB 617 communities for additional, timely and reliable information related to nearby well activities by: providing for additional notifications when acidizing of injection wells, there are certain chemical treatments on wells, and general maintenance activities using a workover rig are planned; decreasing the number of extensions for a planned activity from five to three; and increasing the minimum notification time for a planned activity from 48 hours to 72 hours.

Authority

The South Coast AQMD obtains its authority to adopt, amend, or repeal rules and regulations pursuant to California Health and Safety Code Sections 39002, 40000, 40001, 40440, 40702, 40725 through 40728, 40920.6, and 41508.

Clarity

PAR 1148.2 is written or displayed so that its meaning can be easily understood by the persons directly affected by them.

Consistency

PAR 1148.2 is in harmony with and not in conflict with or contradictory to, existing statutes, court decisions or state or federal regulations.

Non-Duplication

PAR 1148.2 will not impose the same requirements as any existing state or federal regulations. The proposed amended rules are necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD.

Reference

In amending this rule, the following statutes which the South Coast AQMD hereby implements, interprets or makes specific are referenced: California Health and Safety Code Sections 39002, 40001, 40406, 40702, and 40440(a).

INCREMENTAL COST-EFFECTIVENESS

California Health and Safety Code Section 40920.6 requires an incremental cost-effectiveness analysis for BARCT rules or emission reduction strategies when there is more than one control option which would achieve the emission reduction objective of the proposed amendments, relative to ozone, CO, SO_x, NO_x, and their precursors. The proposed amendment does not include new BARCT requirements. Therefore, this provision does not apply to the proposed amendment.

COMPARATIVE ANALYSIS

Under California Health and Safety Code Section 40727.2, the South Coast AQMD is required to perform a comparative written analysis when adopting, amending, or repealing a rule or regulation. The comparative analysis is relative to existing federal requirements, existing or proposed South Coast AQMD rules and air pollution control requirements and guidelines which are applicable to oil and gas production activities. Because PAR 1148.2 does impose new reporting and recordkeeping requirements, a comparative analysis was conducted.

Table 3-1: Comparative Analysis

Topic	AQMD Rule 1148.2 Oil and Gas Notification Rule	CalGEM Senate Bill 4 Well Stimulation Treatment Regulations	San Joaquin Valley Air Pollution Control District	Texas Commission on Environmental Quality	U.S. EPA
Newly Added Notification Requirements	<ul style="list-style-type: none"> Acidizing of injection wells Notification of workover rig 	<ul style="list-style-type: none"> Well stimulation (existing requirement, such as for hydraulic fracturing) Diagnostic testing (to check on potential breach in well) 	<ul style="list-style-type: none"> No relevant requirements observed 	<ul style="list-style-type: none"> No relevant requirements observed 	<ul style="list-style-type: none"> No relevant requirements observed
Other amendments	<ul style="list-style-type: none"> Changing notification timing from 48 hrs to 72 hrs Changing extensions from five to three 	<ul style="list-style-type: none"> 72 hrs 	<ul style="list-style-type: none"> No relevant requirements observed 	<ul style="list-style-type: none"> No relevant requirements observed 	<ul style="list-style-type: none"> No relevant requirements observed
Notes		CalGEM's notifications for well activities differ from SCAQMD's Rule 1148.2	Reviewed Rule 4401 – Steam-Enhanced Crude Oil Production Wells and Rule 4404 – Heavy Oil Test Station – Kern County and did not observe any notification-type language. Other oil and gas related rules appear to cover registration, fees, components, etc. but not notifications.	Reviewed Ch. 30 SECTION 106.352. Oil and Gas Handling and Production Facilities and did not observe any notification-type language for notifying on well maintenance activities.	Notification requirements appear to apply to activities such as hydraulic fracturing and not the maintenance types that Rule 1148.2 refers to.
Links	https://www.aqmd.gov/home/rules-compliance/compliance/1148-2	https://www.conservation.ca.gov/index/Documents/12-30-14%20Final%20Text%20of%20SB%204%20WST%20Regulations.pdf	https://www.valleyair.org/rules/1ruleslist.htm	https://www.tceq.texas.gov/assistance/industry/oil-and-gas/oilgas_air.html	https://www.epa.gov/sites/default/files/2016-08/documents/2016-compliance-guide-oil-natural-gas-emissions.pdf

APPENDIX A: PUBLIC COMMENTS

Comments Received:

1. Bryan Hardwick, California Resources Corporation
2. Multiple Community Groups (received 9/22/2022 via email)
3. California Resources Corporation (received 9/29/2022 via email)

1. Comment received from Bryan Hardwick, California Resources Corporation

Comment: Mr. Hardwick requested clarification on the definition of a sensitive receptor. In particular, he had asked if a hotel or a boat marina should be considered a “sensitive receptor”.

Response: Sensitive Receptor is defined in Rule 1148.2(c)(13), which states:

SENSITIVE RECEPTOR means any residence including private homes, condominiums, apartments, and living quarters; education resources such as preschools and kindergarten through grade twelve (k-12) schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

For purposes of interpreting sensitive receptor under Rule 1148.2, hotels are not considered residences, given their short-term nature, and thus not sensitive receptors. On the other hand, boats docked at the Long Beach Marina may be residences given that the marina allows for live aboard permits, thus they will be considered sensitive receptors.

2. Comment Letter from Multiple Community Groups (received 9/22/2022 via email)



Dear Mr. Morris:

We are encouraged that the South Coast Air Quality Management District (SCAQMD or Air District) is revisiting Rule 1148.2 and applaud the Air District for confirming that injection wells are subject to its requirements. We look forward to another opportunity to continue working with Air District staff to improve and strengthen Rule 1148.2 during the next SCAQMD Rule 1148.2 Working Group Meeting, before it is adopted by the SCAQMD Governing Board. We offer the following recommendations to strengthen the final rule and ensure an effective and prompt notification system:

1. **Notification System:** require mandatory third-party first-class mailing of notices to all addresses within 3,200-feet at least 10-days prior and no more than 14-days prior to all 1148.2 events and provide same-day certainty regarding when toxic oil activities will take place in communities;
2. **Language Justice:** Eliminate language barriers that prevent people with Limited English Proficiency (LEP) from understanding 1148.2 notifications; and
3. **Enforcement:** Penalize oil operators that fail to comply with Rule 1148.2 requirements, ensure proper enforcement of Rule 1148.2, and close potential 1148.2 loopholes.

I. Background

It is well established that proximity to oil drilling operations correspond to devastating health impacts including chronic asthma, headaches, rashes, cardiovascular disease, nausea, nosebleeds, and reproductive harm in California. Neighborhood drill sites, sometimes an arm's length from homes, cloak communities with a slew of toxic emissions such as hydrogen sulfide, benzene, known carcinogens, and endocrine disruptors. One recent study estimated that approximately 34,000 Californians died prematurely due to fossil fuel pollution in 2018. In addition, a growing body of scientific research shows that health harms and safety hazards associated with oil production are well established up to and beyond 1km or 3,200 feet. For example, the Scientific Advisory Panel for the California Geologic Energy Management Division's public health rulemaking process concluded that, "...studies consistently demonstrate evidence of harm at distances less than 1 km, and some studies also show evidence of harm linked to [oil and gas development] activity at distances greater than 1 km."¹

In Los Angeles, frontline residents are all too familiar with the reality of living near rampant oil drilling operations. Over 70% of individuals living within 1,500 feet of active oil drilling operations in Los Angeles are people of color. Since the 1930s, oil companies have been producing fossil fuels in

¹ Gonzalez, D., et. al., *Upstream Oil and Gas Production and Ambient Air Pollution in California*, Science Direct, Feb. (2022) 6, available at: <https://www.sciencedirect.com/science/article/pii/S0048969721053754#bb0130>

Wilmington, a predominantly Latinx community of Los Angeles and an area now home to hundreds of active oil drilling operations. Similarly, Baldwin Hills in South Los Angeles, a historically Black community, is home to the largest urban oil field in the nation. It has been well documented that Black and brown communities are disproportionately harmed by a host of cumulative burdens such as urban oil drilling, refineries, and heavy diesel truck traffic, while systematically denied the same health protections and safeguards provided to white affluent communities.² The Stand Together Against Neighborhood Drilling coalition (STAND-LA) is committed to ensuring community members are properly informed about dangerous operations happening in their communities and are given the opportunity to escape health, safety, and environmental hazards. For this reason, we urge the Air District to provide community members with proper notice and information about the toxic chemicals and operations that have been approved near sensitive areas such as homes, schools, churches, and hospitals.

II. The Air District Must Strengthen Rule 1148.2 to Safeguard Community Health and Safety

A. Physical Mailings for 1148.2 Events Will Ensure Proper Notice

We urge the Air District to timely notify all community members that are in harm's way about toxic events such as acid maintenance work, without requiring these individuals to complete a multi-step opt-in process to receive regular notifications about hazardous events. Community members should not carry the burden of tracking when and where toxic chemicals will be released into their air, water, and soil. In the same manner the City of Los Angeles notifies residents living within 1,500 feet of proposed projects, the Air District should take advantage of all available options to ensure that community members are alerted when toxic activities are happening in their neighborhoods. The final Rule 1148.2 must require that physical mail notices are mailed to all sensitive receptors, including homes, schools, and hospitals, within a 3,200 foot radius of the toxic activity. Sending physical mail will ensure maximum accessibility for all residents, as many STAND-LA community members and allies do not have reliable internet access or smart phones. More importantly, they do not have time to monitor the Air District's website or spend hours investigating oil and gas activity in their neighborhoods. A burdensome opt-in system risks excluding the majority of residents living within 3,200 feet of oil and gas wells from learning about toxic activities taking place in their own backyard.

2-1

Although the Air District has raised concerns that mail notices are infeasible under the current Rule 1148.2 requirement for operators to give notice between 10 days and 48 hours prior to the noticed activity, it is STAND-LA's position that community members' health and safety should be prioritized. Ensuring consistent and effective notice should guide the notification timeline. Relying on superficial emailed notifications that only reach a small pool of proactive community members, places most community members' health at risk leaving them uninformed and unaware of looming health threats. The Air District must adjust their noticing timeline requirements to ensure that physical mailed notices reach as many people as possible. In addition, the Air District could tailor these notification systems to increase efficiency and enhance community engagement. For example, mail notices could include an option for individuals to opt into receiving notices by SMS or email if they prefer receiving e-notices.

B. Community Notification Process

² See LIBERTY HILL FOUND., *DRILLING DOWN: THE COMMUNITY CONSEQUENCES OF EXPANDED OIL DEVELOPMENT IN LOS ANGELES 5* (2015), available at: <https://psr-la.org/wpcontent/uploads/2015/11/DrillingDown-Report-Final.pdf>.

1. Timeline and Same-day Certainty

Oil and gas operators must abide by a linear and dependable noticing process that is designed to ensure overburdened families have the option to avoid unacceptable health risks. A meaningful notification process includes **10 to 14 days'** advance notice with same-day accuracy for Rule 1148.2 events. This is to ensure that all vulnerable members of the community have time to plan ahead and take appropriate health precautionary measures against dangerous levels of benzene, VOCs, and other toxic chemicals associated with these activities. When unforeseen circumstances cause delays, operators must notify the Air District and ensure the community still has 10 to 14 days' notice of the new date of planned activity. This incentivizes operators to give earlier notice of delays and plan carefully to avoid needing to reschedule. Same-day accuracy means that operators, not community members, take on the responsibility of making contingency plans in case of unforeseen delays. Allowing operators to delay their activities without advance notice to residents, schools, and hospitals up to three, four, or five times unfairly burdens people who are already struggling to survive, and is simply inhumane.

2-2

2. Content of Notices

The Air District should be mindful of the needs of their intended audience in crafting notices for oil and gas activity. Families, schools, and hospitals need to know who is at greatest risk of each activity, what those risks are, and what precautions they should take to avoid those risks. For instance, providing the identity, purpose, mass, and CAS number of chemicals is important and should continue to be included, but it hardly provides actionable information to the average community member. The Air District should ensure that notices contain sufficient information for STAND-LA community members to understand whether they should take precautionary measures during well or workover rig activity, and if so, what precautions they should take. This information should include the volume of any chemicals used and their potential acute and chronic health impacts, inherent hazards, and environmental risks. We urge the Air District to model this information sharing on the Chemical Hazard and Alternatives Toolbox (www.chemhat.org).

2-3

Furthermore, this information must be accessible - written in plain language and in the language(s) of the community. Mail notices must contain actionable information without requiring the recipient to take the additional step of entering a url or following a QR code. As previously stated, many health-compromised STAND-LA community members do not have stable internet connection or smart phones, or they may struggle to navigate a government website.

3. Third Party Mailing Service

The Air District has raised concerns about implementation costs for the above recommendations. The Los Angeles Office of the Zoning Administrator requires oil operators to contract with third-party mailing houses to create radius maps and send out notices to the public. These mailings also provide certification to government agencies of the date, time, and addresses of proposed well activity. The District can avoid additional expense by requiring operators to use a third-party mailing service.

2-4

III. Language Justice

The proposed notification and reporting requirements fail to meet language justice requirements set forth by the California Legislature. Government Code § 68560(e) recognizes the need to provide language

2-5

justice for non-English speaking Californians. Furthermore, the Dymally-Alatorre Bilingual Services Act offers language justice protections to address concerns that many Limited English Proficiency (LEP) people are being denied their rights due to language barriers. This concern is well-founded, as demonstrated by the limited multilingual options currently available for the notification system here. It is the responsibility of the agency to determine what languages, including indigenous languages, are in the vicinity, and to employ sufficient translation and interpreter services so that LEP people are not denied access to the notification and reporting. Cal. Gov. Code § 7293. The agency must utilize demographic information to make these determinations and offer sufficient language translation services. Failure to do so would constitute a denial of the rights and benefits that LEP people are entitled to.

2-5
(cont.)

IV. Enforcement and Addressing Ongoing 1148.2 Violations

A strong rule means nothing without proper enforcement. Communities across Los Angeles are paying the price for Rule 1148.2 loopholes that are regularly exploited by oil operators. For example, community members have witnessed smaller tanker trucks at the Murphy Drill Site in South Los Angeles perform acid maintenance jobs without receiving proper notice from the Air District. At other times, community members have documented workers in head-to-toe protective gear emplacing acid from 5,000-gallon tanker trucks just 10 feet away from bedroom windows. Residents received no advance notice of this work. When the job was over, neighbors documented how the ambient fumes had chemically burned plants outside the drill site on the downwind corner, scarring a palm trunk and killing multiple plant species.

2-6

While it is our position that all activities related to oil and gas should be subject to strict notification requirements, at minimum, all activities and oil well components covered by 1148.2 should be subject to strict enforcement requirements by the Air District, coupled with substantial penalties when operators fail to meet these public health requirements.

Finally, the Air District suggested at times that the elimination of 1148.2 events in certain neighborhoods may be due to the depletion of those oil fields. We ask that AQMD provide answers to the following questions:

- Why has there been a decrease in 1148.2 events/notifications since the rule was first implemented, especially at drill sites where oil production has increased? Have oil operators really ceased to maintain and stimulate production wells or is there some other explanation?
- Can smaller tanker trucks be used to circumvent Rule 1148.2 requirements?
- Are there currently requirements to specify the number of diesel engines on site?

2-7

Conclusion

STAND-LA urges AQMD staff to strengthen Rule 1148.2 by creating and safeguarding the health and safety of our communities. We appreciate AQMD's efforts to include us, and we ask for more substantive dialogue about these important issues. We look forward to continuing to engage in this process with AQMD to protect the health of residents.

Sincerely,

Tianna Shaw-Wakeman,

Environmental Justice Program Lead, Black Women for Wellness

Richard Parks
President, Redeemer Community Partnership

Nancy Halpern Ibrahim
Executive Director, Esperanza Community Housing Corporation

Reverend Louis A. Chase
Minister of Community Outreach, Holman United Methodist Church

Elizabeth Chi
Law Clerk, Communities for a Better Environment

Alison Hahn
Staff Attorney, Communities for a Better Environment

Responses to Comment Letter No. 2

Comment 2-1: Rule 1148.2 requires operators to identify sensitive receptors that are within 1500 feet of a proposed and regulated activity. However, notifications are not limited to just people who are located within 1500 feet. Notifications are sent to all people who are signed up to receive them. Beyond electronic notification, staff is proposing requiring written notifications to be sent to sensitive receptors within 1,500 feet for acidizing at least ten days prior to the start of acidizing as shown under (d)(10). For sensitive receptors that do not wish to receive written notification, opting out is available.

Staff reviewed the City of Los Angeles notification process for projects. It was noted that abutting property owners are required to be notified of a public hearing. Depending on the action(s) requested, notification of property owners and occupants within a set radius of the subject property may also be required. To determine the applicable notification radius, the LA City Planning Staff is consulted and a radius is set unique to the project. For example, an application for Conditional Use Permit may require a land use radius map of up to 500 feet.⁵ However, not all projects may require a radius map and thus, a mailing is sent only to abutting property owners.

The commentor also requested that a notification zone be established at a radius of 3,200 feet. Staff has reviewed data from recent air sampling in an urban area and noted that contaminant levels decreased to background levels within 700 – 800 feet of the source⁶. Maintaining a radius of 1,500 feet approximately doubles the area of concern.

Staff has also reviewed recent proposed rulemaking activity for the California Department of Conservation Geologic Energy Management Division (CalGEM)⁷ where a “setback exclusion area” and “setback mitigation area” are defined as meaning all land within 3,200 feet of a sensitive receptor. It is noted that within 3,200 feet of a sensitive receptor, certain specified activity is proposed to be regulated. Notification, in general, is not triggered for work activity within this defined area. However, it is noted that per the proposed Section 1766.8 (a) – Non-Emergency Spill Reporting, of Title 14, California Code of Regulations, “all spills of one-half barrel or more of oil or 10 barrels or more of produced water, that occur with the setback mitigation area, shall be reported to the Division with three days.” It is also noted that per proposed Section 1766.2 (a) – Baseline Water Sampling and Testing, “before commencing any work that requires a Notice of Intention under Public Resources Code Section 3203, the operator shall contact property owners and tenants within a 1500-foot radius of the wellhead or within 500 feet of the surface

⁵ Application checklist for a Conditional Use Permit: <https://planning.lacounty.gov/assets/upl/apps/updated/zoning-permit-checklist.pdf>

⁶ South Coast AQMD presentation on Ethylene Oxide sampling as part of Parter Medical Products, Inc. Emissions Investigation in Carson
<http://www.aqmd.gov/docs/default-source/ab-617-ab-134/steering-committees/wilmington/presentation-aug25-2022.pdf?sfvrsn=8>

⁷ <https://www.conservation.ca.gov/calgem/Documents/public-health/PHRM%20Draft%20Rule.pdf>

representation of the horizontal path of the subsurface parts of the well in writing with a record of delivery and offer to sample and test water wells or surface water on their property before and after drilling. Although CalGem proposes to establish a setback area of 3,200 feet, it is not for purposes associated with or similar to notification requirements regulated by PAR 1148.2.

Comment 2-2: Staff is proposing to limit the number of allowable extensions from five to three. The proposed notification timeline will also require notification no more than 10 days prior and no less than 72 hours. Requiring longer notification periods with no opportunity for extensions would create considerable delays in business practices. Staff considers the proposed timing of notification to effectively balance community concerns with reasonable operational needs.

Comment 2-3: Staff is considering upgrades and enhancements to the notification portal. Staff will work with the existing notification portal to add a link to health-related information. As an alternative to electronic notifications, staff will consider additional signage options when Rule 1148.1 is open for amendment scheduled for 2023.

Comment 2-4: Staff looks to its experience related to mailing public notifications and similar announcements. LA City utilizes Better Technology Corporation (BTC) as its mailing contractor. Based on their published rates⁸, BTC offers two tiers of mailing service: (1) preparing labels from a list of up to 20 addresses provided by the Applicant at a cost of \$2.61 per address; or (2) accepting formatted labels prepared by the Applicant and preparing for mailing at a cost of \$2.21 per address.

To briefly describe LA City's notification process, abutting property owners are required to be notified of a public hearing. Depending on the action(s) requested, notification of property owners and occupants within a set radius of the subject property may also be required. To determine the applicable notification radius, the LA City Planning Staff is consulted and a radius is set unique to the project. For example, an application for Conditional Use Permit may require a land use radius map of up to 500 feet.⁹ It should be noted that not all projects may require a radius map and thus, a mailing is sent only to abutting property owners.

For a general application submitted to the Zoning Administrator, only one mailing, known as a Letter of Determination, may be needed. Applicants are required to pay BTC for a mailing approximately 6-8 weeks prior to a hearing date or actual mainlining. Beyond electronic notification, staff is proposing requiring written notifications to be sent to sensitive receptors

⁸ BTC published rates: <https://planning.lacity.org/odocument/cbc94bf6-6ea7-4e8b-82a9-8c19a1087736/Mailing%20Procedures%20Instructions.pdf>

⁹ Application checklist for a Conditional Use Permit: <https://planning.lacounty.gov/assets/upl/apps/updated/zoning-permit-checklist.pdf>

within 1,500 feet for acidizing at least ten days prior to the start of acidizing as shown under (d)(10). For sensitive receptors that do not wish to receive written notification, opting out is available.

Comment 2-5: The South Coast AQMD is sensitive to the need of communicating with members of the public. Notifications for rules, legal notices, and other official documents are normally published in English. However, when a need to provide information in another language(s) has been identified, the South Coast AQMD will work towards doing so. Rule 1148.2 written notification will require the notification to be sent in both English and Spanish as described in (d)(10).

Comment 2-6: The South Coast AQMD Compliance and Enforcement staff routinely inspects oil and gas production sites and monitors well activities. Additionally, compliance staff responds to complaints made by the public and conducts investigations to verify allegations. Enforcement actions are taken when violations are observed. For example, stakeholders have highlighted a complaint made by a community member regarding alleged chemical burns noticed on a palm tree. Staff investigated the original complaint at that time and found that the palm tree was located outside a fenced oil and gas production site. Staff noted that discoloration was observed only on one palm tree at its base and on localized ground covering around the palm tree but no other vegetation around the facility or in and around the neighborhood exhibited any similar effects. Staff determined that the cause of the discoloration was unknown and that the effect was localized to only one small area. It should be noted that the facility has permanently shut down its operations.

Comment 2-7: Operators determine the necessity of when to conduct drilling, well rework and completion and any acidizing activity. The South Coast AQMD does not participate in this decision. Based on a review of DOGGR/CalGEM data, staff notes that over the last 15 years, oil production throughout the Southern California has steadily declined. In addition, based on discussions with operators, staff notes that companies are hesitant to expand their operations because of economic and regulatory uncertainty. Staff has not observed any circumvention activities. There are no requirements to specify the number of diesel engines that are on a site.

3. Comment Letter from California Resources Corporation (received 9/29/2022 via email)

September 29, 2022

California Resources Corporation (CRC) is providing written comment regarding the presentation for the Public Workshop to be held on September 29, 2022, for PAR 1148.2. Since Draft Rule language was unexpectedly changed on September 22, 2022, CRC has identified numerous issues with the updated proposed rule that will greatly impact our operations and will need to be addressed before the Public Workshop on November 4, 2022. The recent rule revisions will also require system upgrades and the hiring and training of additional staff; therefore, CRC is requesting an extension to the Public Hearing on November 4, 2022, and a minimum of six- nine months before the rule takes affect from date of adoption. Below are our concerns:

CRC Response to Public Workshop Presentation on 9/29/2022:

Slide 6 – Recent Community Concerns:

- Issue 1 – Too many extensions to original notification date. Staff is proposing reducing the number of extensions from five to three times.
 - CRC believes changing the notification time from 48 hours to 72 hours will unnecessarily create more extensions as workover activity is variable. Lengthening the notification date will lead to additional extensions, cancellations, and new original notification submittals. As listed below, even with 48-hour notifications, extensions are common.
 - 73 extensions in 2022 – accounts for 26% of all notifications (January – September 24)
 - 43 extensions in 2021 – accounts for 22% of all notifications
 - 38 extensions in 2020 – accounts for 18% of all notifications
- Issue 2 – Notifications need to be tailored to specific geographic area. Staff working to modify the R1148.2 notification platform to allow for geographic focused notifications.
 - CRC supports this request, however, prior to the rule implementation date, issues with the 1148.2 portal should be fully corrected, tested, with additional hiring of AQMD staff to support the substantial increase in notifications. CRC will submit over a 1,000 notifications per year, and based on current experiences, we believe AQMD does not have adequate technological support or data base to support the draft rule requirements.
 - CRC has experienced and documented weekly issues while submitting notifications as the 1148.2 portal unexpectedly goes down and we are unable to submit the required notification. AQMD needs to incorporate rule language and notification procedures to follow when issues to the AQMD Portal arise, similar to the RECLAIM Electronic Emissions Reporting System Status or Rule 1118 Flare Event Notification System.
 - AQMD only has one contact to assist with portal issues and this individual is planning on retiring. Additional staff and night/weekend contacts are needed if rule language is not provided when AQMD server/portal issues arise.
 - In 2022, there have been 700 duplicate notifications resulting from issues with AQMD's portal with the 285 submitted notifications. Similar issues have also occurred in past

<p>years. CRC is greatly concerned of what potential problems and delays to our business will occur when we begin submitting over 1,000 notifications.</p>	<p>3-2 Cont.</p>
<ul style="list-style-type: none"> • Issue 3 – Additional signage needed to alert community of activity. Staff will consider additional signage requirements under Rule 1148.1. <ul style="list-style-type: none"> ○ CRC has no issue with this request. 	<p>3-3</p>
<p>Slide 9 – Notification Requirement Independent of Sensitive Receptor Distance – (d)(1) and (d)(6). Remove 1,500 feet notification exclusion to PAR language. Notifications will apply to all relevant activities regardless of distance to sensitive receptor.</p> <ul style="list-style-type: none"> ○ CRC believes a 1500 feet notification exclusion is necessary to limit the number of unnecessary notifications and community members have demonstrated similar feelings per AQMD’s presentation. Community members have requested as issue #2 those notifications be tailored to a specific region. This demonstrates communities are not interested in activity outside of their immediate area, especially at distances 2,000 – 7,000 feet offshore. <ul style="list-style-type: none"> ○ Historically, 65% of all 1148.2 notifications occur <u>offshore</u> at distances ranging from 1800 feet to greater than 7,000 feet from a sensitive receptor (THUMS Islands). <ul style="list-style-type: none"> • CRC requests the THUMS Islands to be excluded from Rule 1148.2 notifications. ○ Historically, 16% of all 1148.2 notifications occur within the Port of Long Beach. Less than 10% of wells in this area have a sensitive receptor within 1500 feet of the well. ○ If a 1500 foot exclusion zone remained in Rule language, the public could still access information pertaining to all well maintenance activities including acid maintenance with production and injection wells, drilling, and gravel packs through CalGEM WellSTAR: https://www.conservation.ca.gov/calgem/for_operators/Pages/WellSTAR.aspx (online data - well maintenance – explore data – well maintenance). 	<p>3-4</p>
<p>Slide 10 – Additional Time for Notifications Prior to Start of Activity (d)(1). Changing notification time from no less than 48 hours to no less than 72 hours prior to start of drilling, well completion, rework or acidizing of an onshore oil, gas, or injection well. Addresses concerns that notifications occurring on Fridays do not provide enough time for schools and other community centers that reopen on Monday to plan to mitigate impact of oil well activities.</p> <ul style="list-style-type: none"> • This requirement further demonstrates the communities concern for activity near (within 1500 feet of a sensitive receptor) and AQMD staff should reinstate the 1500 feet exclusion. 	<p>3-5</p>
<p>Slide 11 – Reduction of Number of Notification Extensions – (d)(3)(C). Changing notification extensions from five to three.</p> <ul style="list-style-type: none"> ○ CRC believes additional notifications will arise from this change as operators will cancel the original/extension notification and submit a new original notification. Operators cannot account for unforeseen downhole issues. 	<p>3-6</p>
<p>Slide 13 – Community Concern Regarding Chemical Usage</p>	<p>3-7</p>

- o CRC believes the local CUPA has regulatory oversight, and this is not an SCAQMD issue.

3-7
Cont.

Additional Issues CRC has identified:

- (a) Purpose – The purpose of this rule is to gather air quality-related information on oil, gas, and injection wells for drilling, well completion, rework, and acidizing.
 - CRC believes the purpose of this rule is administrative for “Notification” and not air quality related, as no emissions monitoring or reduction occurs from this Rule. The definition of “Purpose” should be changed to “maintenance.”
- (d)(6) - The operator of a workover rig operating at sites where the engine does not meet a minimum Tier 4 – Final emissions standards of 40 CFR Part 1039 Section 1039.101 Table 1, or where the engine is not powered by a non-combustion source, shall electronically notify the Executive Officer no more than (10) calendar days and no less than 24 hours prior to the use of the workover rig on either an onshore oil or gas well, or an injection well. This engine standard shall also apply to any engine that connects to, and assists, the workover rig with any well activity
 - CRC believes the exemption for “powered by non-combustion source” should also apply to drilling rigs. CRC utilizes electric drilling rigs whenever possible (THUMS Islands). Green technology should be encouraged and rewarded, and therefore be able to operate without providing notifications similar to workover rigs. This request is directly resulting from the changes to the rule on September 22, 2022.
- (e)(6) - The operator of an onshore oil and gas well shall electronically report, using a format approved by the Executive Officer, the total amount of each chemical ingredient used per well for the previous calendar year to the Executive Officer no later than April 1st of the following calendar year.
 - CRC believes this requirement is redundant to the chemical report submitted 60-days following the reported activity. If AQMD staff can modify the 1148.2 Portal to allow community members to receive notifications according to geographical locations, then the portal should be able to summarize the provided data into a 12-month total.
 - i The notification and chemical reports submitted by an operator provides the well name, API, and facility ID, which should make summarizing an annual emission report easy for the AQMD portal.
 - ii CRC believes community members would agree that a tabulated total easily assessable throughout the year would be more beneficial than one provided four months after the end of the year.
- Changes to the proposed rule have occurred without enough time to properly evaluate and hire additional staff to cover the reporting requirements for both industry and the chemical provider.
 - o CRC requests delaying the public hearing on November 4, 2022 and continue until first quarter 2023 to allow for additional working groups to take place to account for the significant and recent changes. CRC also request at least six to nine months before final rule implementation to allow time to hire and train additional staff.
 - In addition, timely notification for the removal of the 1500-foot exclusion was not properly notified to operators and therefore CRC has not had enough time to adequately identify the additional costs and manpower needed to support over 1,000

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notifications per year, as well as the additional support our chemical providers and contractors will need.

3-11
Cont.

CRC appreciates the continued dialog with staff and hopes for the opportunity to continue modifying this rule.

Sincerely,

Bryan Hardwick
HSE Lead
California Resources Corporation

Responses to Comment Letter No. 3

Comment 3-1: Staff is proposing to change the notification time for well activities from a minimum of 48 hours to 72 hours in response to concerns raised by community stakeholders. Community stakeholders note that with a shorter notification period concerned individuals cannot effectively nor in timely manner prepare or respond to a given planned well activity. Although there may be more extensions requested as a result of the timing change, staff considers such an increase to be an incremental amount that may or may not be realized. Currently, as noted by the commenter, extensions are used, but staff recognizes that factors other than those attributed strictly to the 48-hour restriction are common such as delays in transportation or staffing issues.

Comment 3-2: Staff will be including additional flexibility in the event of portal issues as described by the commenter. Included in the proposed rule will be the option to notify the District via the 1-800-CUT-SMOG hotline should the portal experience reception problems.

Comment 3-3: Thank you for your comment. As noted by staff, staff will be considering additional signage requirements when Rule 1148.1 is subject to amendment.

Comment 3-4: Although staff had initially proposed to limit notifications to a 1500-foot radius near sensitive receptors, concerns that such actions could be detrimental to the public by reducing the amount of information available to them were raised. As part of the rulemaking process, staff evaluates consequences of proposed actions or amendments and balances these with concerns raised by all stakeholders. As such, the rulemaking process is a dynamic process where initial proposals can change as more information is gathered and reviewed. Staff understands the commenter's concerns about the volume of new notifications and is proposing that the amendments be effective on or before July 1, 2023.

Comment 3-5: See response to Comment 3-1.

Comment 3-6: Currently, an operator may cancel on original/extension notification at their discretion. Although extensions to a notification may be reduced from five to three, such discretion remains in effect.

Comment 3-7: During this rulemaking effort, concerns regarding the use of chemicals at an urban oil and production site were raised by community stakeholders. Specifically, delivery of chemicals

to the site were observed and it was alleged that such chemicals were being used in activities regulated by Rule 1148.2 and that such activities were not being properly noticed.

Staff investigated these allegations by conducting multiple site visits and noted that chemicals such as corrosion inhibitors, demulsifiers, amine, etc. are normally and typically used in activities that support the operation or maintenance of the site. These chemicals are delivered at a frequency and quantity determined by the operator and in some cases, are stored on site. Staff determined that the delivery, storage, and usage of these chemicals are used in activities not regulated by Rule 1148.2 such as drilling, well completion, well rework, or well acidizing. For example, a demulsifier is injected into an oil-water storage tank to help to separate the oil and water into two distinct phases. In addition, many of these chemicals are used in small quantities compared to the volume used in the activities covered by the Rule. However, to address the concerns of community stakeholders and to address the usage of chemicals and frequency of treater truck site visits, notification when chemicals in excess of twenty gallons are used per well as described in (d)(1) will be included in the Rule.

Comment 3-8: Although no emissions monitoring or reduction occurs as a result of this Rule, it is important to notify the community when certain defined oil-field activities will be taking place. The substitution of the term “maintenance” does not apply to all activities regulated by the Rule. An important part of the notification process is the identification of chemicals and their respective quantities used as part of the activities regulated by the Rule.

Comment 3-9: The use of the phrase “powered by non-combustion source” is not meant to exclude the use of electrically-powered rigs. Initially, staff had incorporated language identifying only “electrically-powered” rigs, but opted to use a more generic description of “powered by non-combustion source” in the event that sometime in the future, technology based on solar panels, batteries, fuel-cells, wind-driven equipment, etc. could become viable options and as such be used as well as “electrically-powered” equipment.

Comment 3-10: Staff agrees with the commentor and is upgrading the Rule 1148.2 Notification Portal to compile and provide the annual report rather than requiring a separate submittal by applicable facilities.

Comment 3-11: Staff is proposing that the implementation of the newly proposed amendments be effective on or before July 1, 2023. The proposed rule language will be revised to reflect this recommendation.