

sign shall not exceed six square feet in area and shall be located so that it is clearly visible from the street where the access drive is located.

- B. The sign shall be kept in good legible condition at all times.
- C. No sign other than that described in this ordinance shall be allowed, other than informational signs, no smoking signs, and other signs as reasonably required for safe operation of the project.
- D. Signs shall not be constructed, erected, maintained or placed on the premises or any part thereof, except those required by law or ordinance to be displayed in connection with the drilling or maintenance of the well.
- E. Identification signs, at intervals acceptable to the Petroleum Administrator, shall be posted and maintained in good condition along the outer boundary line fence and along the fences adjoining the public roads that pass through the oil or gas facility site. Each sign shall prominently display current and reliable emergency contact information that will enable a person to promptly reach, at all times, a representative of the operator who will have the expertise to assess any potential problem and recommend a corrective course of action. Each sign shall also have the telephone number of the City department of planning or zoning enforcement section and the number of SCAQMD that can be called if odors are detected.

9527 Steaming

~~The installation of any surface equipment designed to produce steam shall be prohibited without If an operator seeks to use steaming methods then, prior to the use of any steaming operations on the oil or gas facility, the approval of the Petroleum Administrator. The operator shall submit a steaming plan addressing equipment sizing and design to the Petroleum Administrator for review and approval. The steaming plan shall also include well casing and cementing design specifications and requirements. All wells used for steaming shall be specifically designed for steaming purposes.~~

9528 Utilities

- A. Each oil or gas facility site shall be served by and utilize only reclaimed water, aside from potable water used for human consumption, unless the use of reclaimed water is deemed infeasible by the Petroleum Administrator, in which case the following criteria apply:



1. The operator must prepare and submit a supply assessment ~~an individual study~~ of all water resources available for use and submit the study for review ~~of to~~ the Petroleum Administrator.
2. If the study indicates that potable water is the only feasible alternative then the operator may utilize such a water source only if the operator provides an equal and measurable benefit to the community for such use, as determined by the Petroleum Administrator.

B. New electrical power shall be routed underground from the nearest source adequate to meet the needs of the well site.

9529 On-Site Storage and Placement of Equipment

No equipment shall be stored or placed on the site, which is not essential to the everyday operation of the oil or gas well located thereon.

9530 Safety Assurances and Emergency/Hazard Management

The following measures shall be implemented throughout the operation of any oil or gas ~~facility~~site or project subject to this ordinance:

9530.1 Fire Prevention Safeguards

- A. All oil and gas site ~~drilling and producing operations~~ shall conform to all applicable fire and safety regulations, codes, and laws.
- B. The oil and gas site ~~entire property on which the oil or gas well is located~~ shall be kept free of debris, pools of oil, water or other liquids, weeds, and trash.
- C. Land within twenty-five feet of the site~~well~~ shall be kept free of dry weeds, grass, rubbish or other combustible material at all times.
- D. All equipment, facilities, and design ~~must~~ shall be approved by the Los Angeles County Fire Department prior to approval of a Conditional Use Permit or development agreement.

9530.2 Blowout Standards and Testing

The operator shall comply with DOGGR regulations for blowout prevention and will provide all equipment as stipulated in the DOGGR regulations during the drilling operations of any well.



9530.3 Earthquake Shutdown

A. The operator shall ~~shut down~~ cease any non-essential ~~welldrilling~~ and production activities and inspect all ~~oil and gas project-related~~ facilities, equipment, and pipelines following any seismic event that generates a ground acceleration of 15 percent (0.15g) of gravity or more.

B. The operator shall either, (1) Operate and maintain an accelerometer at the project site or (2) Obtain real time data from a nearby accelerometer, to determine site-specific ground accelerations ~~at the oil and gas site as a result of any seismic event in the region (Los Angeles County).~~ The operator shall inspect all project site pipelines, ~~facilities, equipment, storage tanks,~~ and other infrastructure following any seismic event that exceeds a ground acceleration at the project site of 15 percent of gravity (0.15 g) and promptly notify the City Engineer and the Petroleum Administrator ~~of the results of the inspection.~~ ~~Shall there be any structural damage or equipment failure as a result of any seismic event, the operator shall isolate and address any damage or equipment failure as appropriate to minimize environmental or safety impacts.~~ ~~Recommencement of any operations may occur through verbal approval of the Petroleum Administrator.~~ The operator shall prepare and submit a written report of all inspections and findings to the City for review and approval ~~prior to the~~ with one week of the seismic event ~~recommencement of any operations.~~

C. The operator shall not reinstitute operations at those portions of the project site and associated pipelines until it can reasonably be determined by the Petroleum Administrator that all project site infrastructure is repaired and structurally sound.

9530.4 Storage Tank Monitoring

The operator shall install ~~an interstitial tank monitoring~~ leak detection monitoring system that will indicate the physical presence of a leaked product underneath storage tanks on site that have the potential to result in soil contamination. The results of the monitoring ~~shall will be made available~~ submitted to the Petroleum Administrator upon request. The monitoring system ~~shall will~~ abide by 14 California Code of Regulations Section 1773.2 as well as the following specifications:

~~The barrier must be placed immediately around and/or beneath the tank and interstitial materials.~~

~~The interstitial monitor shall must be checked at least once every 30 days and provided with automatic fluid alarm systems~~



The monitors shall system must be able to detect and alert the operator of a release through the tank floor/bottom.

A secondary impervious containment shall be placed beneath all new tanks and any tank found to have released oil or gas beneath the tank bottom/floor and above the natural/graded ground and shall be capable of controlling infiltrations at rates of 10-6 cm/sec.

1. Foundations for new tanks shall be designed to support the tank, maintain the tank level, and drain fluid away from the tank, including fluids that may leak from the tank. The sub-base of the foundation shall include an impermeable barrier designed to prevent downward fluid migration and to allow leaks to drain away from the tank and be detected by visual inspection or through the use of a leak detection sensor, as each particular instance may require. The foundation base shall be made of material that provides for support and drainage away from the tank.
2. When a tank bottom is replaced, a leak detection system shall be installed and properly maintained that will either: (1) Channel any leak beneath the tank to a location where it can be readily observed from the outside perimeter of the tank, or (2) Accurately detect any tank bottom leak through the use of sensors.
3. The Petroleum Administrator may require a tank bottom leak detection system for any tank with a foundation that does not have an impermeable barrier after considering such factors as the age of the tank, fluid service, and proximity to groundwater.

9530.5 Safety Measures and Emergency Response Plan

The operator is responsible for satisfying the following compliance with safety and emergency response requirements, including but not limited to:

A. Safety and Emergency Response Plan. The operator shall prepare, submit, and have an approved plan for all safety and emergency response activities, facilities, and equipment for the site to include, but not be limited to, the following:-

1. Procedures for activation of the Plan, such as responder activation charts, employee responsibilities, emergency coordinator checklists, etc.;
2. Emergency Information and Phone Numbers;

3. Emergency Notification procedures;
4. Emergency checklists for hazardous materials releases, fire fighting response, personal injuries and chemical burns, hydrogen sulfide releases, storm drain or sewer incidents, bomb threats and earthquakes.
5. Site evacuation procedures;
6. Emergency response equipment;
7. Employee training; and
8. Hazardous materials inventories.

B. Emergency Response Drills. -The operator shall demonstrate the effectiveness of the emergency response plan by responding to one planned emergency response drill per year, which shall be conducted in conjunction with the Los Angeles County Fire Department. Emergency response drills required by other agencies that involve the Los Angeles County Fire Department can be used to satisfy this provision. In addition, the operator shall demonstrate the effectiveness of the emergency response plan by responding to not more than two unannounced drills each year, which may be called at the discretion of the Los Angeles County Fire Department or Petroleum Administrator at the oil field. If critical operations are then underway at the oil field, the operator need not respond to a unannounced drill to the extent such a response would, as a result of such critical operations, create an undue risk of personal injury or property damage, but in such case the operator must promptly explain the nature of the critical operations, why response is not possible, and when the critical operations will be completed.

D.C. Response Manual and Oil Spill Contingency Plan. The operator shall submit an Oil Spill Contingency Plan approved by the City of Carson-Los Angeles County Fire Department, to the Petroleum Administrator which will outline response actions in the event of a spill, including a spill response trailer, equipment, and personnel training. Spill cleanup shall be completed under the oversight of the lead regulatory agency, with respect to oil spills, as identified in the Oil Spill Contingency Plan.

E.D. Safety Audit. -The operator shall cause to be prepared an independent third-party audit, under the direction and supervision of the City, of all facilities, once constructed, including the well pads, to ensure compliance with the California Fire Code (as may be adopted by the City with modifications as applicable), applicable API and NFPA codes, EPA RMP, OSHA PSM, DOGGR and SPCC and emergency response plans requirements. All audit items shall be implemented in a timely fashion, and the audit shall be updated annually, as directed by the City and the Los

Angeles County Fire Department. The final installation of the facilities shall include a seismic assessment, including walkthroughs, of equipment to withstand earthquakes prepared by a registered structural engineer in compliance with Local Emergency Planning Committee Region 1 CalARP guidance and the seismic assessment shall be updated, with walkthrough inspections, annually to ensure compliance with the codes and standards at the time of installation.

~~F.E.~~ Community Alert System. The operator shall implement a community alert notification system, or utilize an existing system operated by the Police, Sheriff or Fire Department, to automatically notify area residences and businesses in the event of an emergency at an oil or gas facilities-site that would require residents to take shelter or take other protective actions.

~~G.F.~~ Fire Safety Measures. The -operator shall~~will~~ implement the following fire safety measures:

1. The operator shall ensure that design and construction comply with applicable codes and standards for equipment spacing, particularly those related to flare location and distances to public areas, installation of fire detection and prevention systems, flame detection, flammable gas detection, fire foam, and associated alarms and alert systems. The design and construction compliance status shall be verified by third-party audits overseen by the City.
2. The operator shall develop emergency response plans addressing the facilitiesite's fire-fighting capabilities pursuant to the most recent NFPA requirements, the California Fire Code (as may be adopted by the City with modifications as applicable), Los Angeles County Fire Department, California Code of Regulations, and API requirements, in coordination with Los Angeles County Fire Department and the City of Carson. These plans shall include, but not be limited to, fire monitor placement, fire water capabilities, fire detection capabilities, fire foam requirements, facilitiesite condition relating to fire-fighting ease and prevention, and measures to reduce impacts to sensitive biological resources. The plan shall also address coordination with local emergency responders and area schools and daycare facilities.
3. Emergency response plans shall address the issues related to wildfire risks and response, including development of fuel management/modification fire hazard management plan according to Fire Department requirements, coordination with the area residences and potentially affected agencies, as well as identification of first response tactics and equipment available to address wildfire risks.



9530.6 Transportation of Chemicals and Waste On and Off-site

The operator shall implement the following measures ~~shall be implemented~~ throughout the operations of any oil and gas ~~facility~~site or project subject to this ordinance:

- A. Solid Waste Disposal. Solid waste generated on the site shall be transported to a City-approved landfill or hazardous waste ~~facility~~site as may be appropriate for the life of the operation.
- B. Drilling Site Waste Removal. The operator shall comply with the following provisions:
 - 1. All ~~drilling, redrilling, re-drilling~~ and workover waste shall be collected in portable steel bins compliant with United States Department of Transportation standards. Any ~~drilling, redrilling, and workover wastes~~ that are not intended to be injected into a Class II Well, as permitted by DOGGR, shall be removed from the project site no later than thirty days following completion of the ~~drilling, redrilling~~ and workover.
 - 2. No project-site waste shall be discharged into any sewer unless permitted by the Sanitation District, or into any storm drain, irrigation system, stream, or creek, street, highway, or drainage canal. Nor shall any such wastes be discharged on the ground.
 - 3. The operator shall comply with all provisions of a recycling plan that has been approved by the Petroleum Administrator. The recycling plan shall include any elements requested by the Petroleum Administrator.
- C. Storage of Hazardous Materials. The operator shall ~~submit to give~~ the Petroleum Administrator a copy of the Hazardous Material Business Plan, as approved by the Los Angeles County Fire Department, annually. This plan shall include a complete listing and quantities of all chemicals used onsite, and provide the location of where hazardous materials are stored at the site. Hazardous materials shall be stored in an organized and orderly manner, and identified as may be necessary to aid in preventing accidents, and shall be reasonably protected from sources of external corrosion or damage to the satisfaction of the Fire Chief of the Los Angeles County Fire Department or designee.

9530.6.1 Natural Gas Liquids (NGLs)

Throughout the operation of any oil and gas ~~facility~~site or project subject to this ordinance heavier NGLs and butanes shall be blended with crude oil for shipment by pipeline to the maximum extent allowable within the technical specifications of the pipeline, however, blending of butanes

shall not take priority over blending of heavier NGLs when technical limitations are reached. Oil transportation pipelines and gas processing facilities shall be designed to maximize the blending of NGLs into the crude oil stream.

9530.6.2 Transportation Risk Management and Prevention Program (TRMPP)

If the site passes through any prohibited zoning as listed in Table 1-1, or if the Petroleum Administrator determines it is necessary, and if any product from oil and gas development in the City is to be transported by truck, the operator shall prepare and maintain a Transportation Risk Management and Prevention Program that meets City approval which shall be provided to the Petroleum Administrator upon request. The TRMPP may contain the following components including, but not limited to:

- A. Provisions for conducting comprehensive audits of carriers biennially to assure satisfactory safety records, driver hiring practices, driver training programs, programs to control drug and alcohol abuse, safety incentive programs, satisfactory vehicle inspection and maintenance procedures, and emergency notification capabilities. The operator shall submit to the City an annual summary of any audits that were conducted each calendar year.
- B. Provisions for allowing only carriers which receive a satisfactory rating under the above audit process to transport oil and gas products.
- C. Truck loading procedures for ensuring that the loading rack operator and the truck driver both conduct, and document in writing, a visual inspection of the truck before loading and procedures to specify actions to be taken when problems are found during the visual inspection.

9530.6.3 Pipeline Leak Detection

All new oil transportation pipelines shall use a supervisory control and data acquisition (SCADA-type) monitoring system for leak detection; unless the Petroleum Administrator determines that there is better available technology that shall be utilized instead. The flow meters used on the SCADA system shall be accurate to within one percent. If a leak is detected the operator shall be responsible for immediately reporting it to the Petroleum Administrator.

9531 Environmental Resource Management

Throughout operation of an oil or gas facility site, the operator shall comply with the following environmental resource management policies:

9531.1 General Environmental Program

A. Environmental Quality Assurance Program ("EQAP"). The operator shall comply with all provisions of an environmental quality assurance program that has been accepted by the Petroleum Administrator and approved as part of a CUP or DA. The following provisions relate to the EQAP:

1. EQAP Requirements. The EQAP shall provide a detailed description of the process, individual steps, and submissions, the operator shall take to assure compliance with all provisions of this Section, including but not limited to, all of the monitoring programs called for by this Section.
2. Annual EQAP Reports. Within sixty days following the end of each calendar year, the operator shall submit to the Petroleum Administrator an annual EQAP report that reviews the operator's compliance with the provisions of the EQAP over the previous year and addresses such other matters as may be requested by the Petroleum Administrator. The annual EQAP report shall include the following:
 - i. A complete list and description of any and all instances where the provisions of the EQAP, or any of the monitoring programs referred to therein or in this Section, were not fully and timely complied with, and an analysis how compliance with such provisions shall be improved over the coming year.
 - ii. Results and analyses of all data collection efforts conducted by the operator over the previous year pursuant to the provisions of this Section.
3. EQAP Updates. Proposed updates to the EQAP shall be submitted to the Petroleum Administrator for approval along with the annual EQAP report. The Petroleum Administrator shall complete the review of EQAP updates as soon as practicable, and shall either approve the updated EQAP or provide the operator with a list of specific items that must be included in the EQAP prior to approval. The operator shall respond to any request for additional information within thirty days of receiving such request from the Petroleum Administrator and shall modify the proposed EQAP update consistent with the Petroleum Administrator's request.

B. Publically Available Monitoring Data. The operator shall be responsible for providing current monitoring results and data directly to the public. The up-to-date monitoring data and results shall be located on a website run by the operator, owner, company, or entity responsible for the oil or gas facility-site. The monitoring results and data shall include the following information:

1. Air quality data;
2. Wind direction, speed, data
3. Seismic events;
4. Water quality monitoring results for both surface and groundwater monitoring locations at an oil or gas facility site, or from nearby groundwater monitoring location(s) as authorized by the Petroleum Administrator. ;
5. Pipeline testing and monitoring results;
6. Vibration; and
7. Ambient noise levels.

9531.2 Air Quality

The operator shall at all times conduct oil or gas facility site operations to prevent the unauthorized release, escape, or emission of dangerous, hazardous, harmful and/or noxious gases, vapors, odors, or substances, and shall comply with the following provisions:

A. **Odor Minimization.** If the site is within 1,500 feet of any prohibited zoning as listed in Table 1-1, or if the Petroleum Administrator determines it is necessary, aAt all times the operator shall comply with the provisions of an odor minimization plan that has been approved by the Petroleum Administrator. The odor minimization plan shall include any measures requested by the Petroleum Administrator. The plan shall provide detailed information about the facility site and shall address all issues relating to odors from oil or gas operations. Matters addressed within the plan shall include setbacks, signs with contact information, logs of odor complaints, method of controlling odors such as flaring and odor suppressants, and the protocol for handling odor complaints. The odor minimization plan shall be reviewed and updated by the operator on an annual basis to determine if modifications to the plan are required. Any modifications to the odor minimization plan shall be submitted to the Petroleum Administrator for review and approval. Any operator's submissions to the SCAQMD shall be provided to the Petroleum Administrator and shall be consistent with Section 9531.2.

B. **Portable Flare for Drilling.** If the site is within 1,500 feet of any prohibited zoning as listed in Table 1-1, or if the Petroleum Administrator determines it is necessary, tThe operator shall have a gas buster and a portable flare, approved by the SCAQMD, at the oil or gas field and available for immediate use to remove any gas encountered during drilling, -and abandonment operations from drilling well muds prior to the muds being sent to the shaker table, and to direct



such gas to the portable flare for combustion. The portable flare shall record the volume of gas that is burned in the flare. The volume of gas burned in the flare shall be documented in the drilling-operations logs. The operator shall notify the Fire Chief of the Los Angeles County Fire Department and the SCAQMD within forty-eight hours in the event a measurable amount of gas is burned by the flare, and shall specify the volume of gas that was burned in the flare. All other ~~drilling and, reworking, abandonment, re-abandonment and redrilling~~ drilling-operations shall be conducted so that any measurable gas that is encountered can, and will, be retained in the wellbore until the gas buster and portable flare are installed on the rig, after which the gas will be run through the system to flare. The operator shall immediately notify the Fire Chief of the Los Angeles County Fire Department and the SCAQMD in the event any gas from ~~drilling or redrilling~~ drilling-well operations is released into the atmosphere without being directed to and burned in the flare. ~~The requirements of this subsection BD are applicable to all oil and gas wells except for such facilities where the operator has adequately documented and demonstrated that the wells are compliant with the following: (1) the well adheres to a setback a minimum distance of 1,000 feet from any prohibited zoning as listed in Table 1-1, (2) the drilling operations are not expected to enter reservoirs known to produce any hydrogen sulfide, and (3) there is no evidence of pressure in the resource reservoir that is the subject of the resource extraction operations of the drilling activity.~~

C. Odor Suppressant for Drilling and Redrilling ~~Re-drilling~~ Operations. If the site is within 1,500 feet of any prohibited zoning as listed in Table 1-1, or if the Petroleum Administrator determines it is necessary, ~~The operator shall use an enclosed mud system that directs all mud vapors through an odor capturing system, such as a carbon bed, to prevent odoriferous/odorous pollutants from passing the site boundaries and impacting the area. An odor suppressant spray system may shall be used on the mud shaker tables for all drilling and redrilling~~ drilling operations to ensure that no odors from said operations can be detected at the outer boundary line of the well project site.

D. Closed Systems. The operator shall ensure that all produced water, gas and oil associated with production, processing, and storage, except those used for sampling only, are contained within closed systems at all times and that all pressure relief systems, including tanks, vent to a closed header and flare-type system to prevent emissions of odiferous pollutants. No open pits are allowed.

E. Meteorological Station. If the site is within 1,500 feet of any prohibited zoning as listed in Table 1-1, or if the Petroleum Administrator determines it is necessary, ~~The operator shall~~ maintain and operate a meteorological station at the well site ~~oil field~~ in good operating condition and in compliance with all applicable Environmental Protection Agency ("EPA") and SCAQMD



rules, regulations, and guidelines, and to the satisfaction of the Petroleum Administrator. The operator shall conduct an audit of the meteorological station on an annual basis and submit the results of the audit to the SCAQMD and the Petroleum Administrator. The operator shall maintain the data files for the meteorological station for a period of not less than ten years. All such data shall be available upon request to the SCAQMD and the Petroleum Administrator.

F. Health Risk Assessment. If the site is within 1,500 feet of any prohibited zoning as listed in Table 1-1, or if the Petroleum Administrator determines it is necessary, aAfter every five years of operation of the meteorological station, the operator shall provide the previous five years of metrological data to the SCAQMD and the Petroleum Administrator and a health risk assessment shall be performed to indicate that health risks comply with SCAQMD standards.

G. Off-Road Diesel Construction Equipment Engines. All off road diesel construction equipment shall comply with the following provisions:

1. Utilize California Air Resources Board ("CARB") EPA Certification Tier III or other methods approved by the CARB as meeting or exceeding the Tier III standard.
2. Utilize a CARB Level 3 diesel catalyst. The catalyst shall be capable of achieving an eighty-five percent reduction for diesel particulate matter. Copies of the CARB verification shall be provided to the Petroleum Administrator. Said catalysts shall be properly maintained and operational at all times when the off-road diesel construction equipment is in use. Use of an EPA Certification Tier 4i engine will also satisfy this requirement.

H. Drill Rig Engines. All drilling, abandonment, redrilling and workover rig diesel engines shall comply with the following provisions:

1. Utilize CARB/EPA Certification Tier III or better certified engines
2. Utilize a CARB Level 3 diesel catalyst. The catalyst shall be capable of achieving an 85 percent reduction for diesel particulate matter. Copies of the CARB verification shall be provided to the Petroleum Administrator. Said catalysts shall be properly maintained and operational at all times when the off-road diesel construction equipment is in use. Use of an EPA Certification Tier 4i engine will also satisfy this requirement.

I. Fugitive Dust Control Plan. If the site is within 1,000 feet of any prohibited zoning as listed in Table 1-1, or if the Petroleum Administrator determines it is necessary, tThe operator shall comply with the provisions of a fugitive dust control plan that has been approved by the

Petroleum Administrator. The plan shall be based upon the requirements of SCAQMD Rule 403 and the SCAQMD CEQA Guideline Fugitive Dust Control Measures as may be updated. The fugitive dust control plan shall be reviewed by the operator every five years to determine if modifications to the plan are required. Any modifications to the fugitive dust control plan shall be submitted to the Petroleum Administrator for review and approval. The fugitive dust control plan shall include any measured requested by the Petroleum Administrator.

9531.3 Greenhouse Gas Emissions and Energy Efficiency Measures

- A. The operator of an oil and gas project site shall completely offset all emissions from the oil and gas facility site through participation in the statewide cap and trade program, if applicable, or obtaining credits from another program, such as the SCAQMD Regulation XXVII, as approved by the Petroleum Administrator. On an annual basis, the operator shall provide the Petroleum Administrator with documentation of the operator's participation in the program.
- B. Throughout the oil and gas site project life, as equipment is added or replaced, cost-effective energy conservation techniques shall be incorporated into project design.

9531.4 Air Quality Monitoring and Testing Plan

At all times the operator shall comply with the provisions of an air monitoring plan that has been approved by the Petroleum Administrator (as part of the EQAP). The air monitoring plan shall include any measure requested by the Petroleum Administrator. During all operations, including but not limited to drilling, ~~redrilling~~, and workover operations, the operator shall continuously, monitor for hydrogen sulfide and total hydrocarbon vapors as specified in the approved plan, in a manner that allows for detection of pollutants from all wind directions, as approved by the Petroleum Administrator. Total hydrocarbon vapors shall be monitored at drilling, workover and processing plant areas as specified in the approved plan. Such monitors shall provide automatic alarms that are triggered by the detection of hydrogen sulfide or total hydrocarbon vapors. The alarms shall be audible and/or visible to the person operating the equipment. Actions to be taken shall be as follows when specified alarm levels are reached:

- A. At a hydrogen sulfide concentration of equal to or greater than five parts per million but less than 10 parts per million, the operator shall immediately investigate the source of the hydrogen sulfide emissions and take prompt corrective action to eliminate the source. The corrective action taken shall be documented in the drilling, ~~redrilling~~, or workover log. If the concentration is not reduced to less than five parts per million within four hours of the first occurrence of such concentration, the operator shall shut down the drilling, ~~redrilling~~, or workover



operations and equipment in a safe and controlled manner, until the source of the hydrogen sulfide emissions has been eliminated, unless shutdown creates a health and safety hazard.

B. At a hydrogen sulfide concentration equal to or greater than 10 parts per million, the operator shall promptly shut down the drilling, ~~redrilling~~, or workover operations and equipment in a safe and controlled manner until the source of the hydrogen sulfide emissions has been eliminated, unless shutdown creates a health and safety hazard. The corrective action taken shall be documented in the drilling, ~~redrilling~~ or workover log. When an alarm is received, the operator shall promptly notify the Los Angeles County Fire Department, the Petroleum Administrator, and the SCAQMD.

C. At a total hydrocarbon concentration equal to or greater than 500 parts per million but less than 1,000 parts per million, the operator shall immediately investigate the source of the hydrocarbon emissions and take prompt corrective action to eliminate the source. The corrective action taken shall be documented in the drilling log for drilling, ~~redrilling~~, or workover and in the ~~gas plant log for the gas plant~~ oil and gas site. If the concentration is not reduced to less than 500 parts per million within four hours of the first occurrence of such concentration, the operator shall shut down the drilling ~~or, redrilling~~, workover, or ~~gas plant~~ site operations in a safe and controlled manner, until the source of the hydrocarbon emissions has been eliminated, unless shutdown creates a health and safety hazard.

D. At a total hydrocarbon concentration equal to or greater than 1,000 parts per million, the operator shall promptly shut down the drilling, ~~redrilling~~, or workover or ~~gas plant~~ operations in a safe and controlled manner, until the source of the hydrocarbon emissions has been eliminated, unless shutdown creates a health and safety hazard. The corrective action taken shall be documented in the drilling log for drilling, ~~redrilling~~, or workover and in the ~~gas plant log for the gas plant~~. When an alarm is received, the operator shall promptly notify the Los Angeles County Fire Department - Health Hazardous Materials Division, and the SCAQMD.

E. The Petroleum Administrator may also require additional community monitoring periodically for hydrogen sulfide, hydrocarbons or Toxic Air Contaminants. All the monitoring equipment shall keep a record of the levels of total hydrocarbons and hydrogen sulfide detected at each of the monitors, which shall be retained for at least five years. The operator shall, on a quarterly basis, provide a summary of all monitoring events where the hydrogen sulfide concentration was at five parts per million or higher and the total hydrocarbon concentration was at 500 parts per million or higher to the Fire Chief of the Los Angeles County Fire Department. At the request of the Fire Chief, the operator shall make available the retained records from the monitoring equipment.



9531.5 Water Quality

The operator shall at all times conduct oil operations to avoid any adverse impacts to surface and groundwater quality, and shall comply with the following provisions:

9531.5.1 Water Quality Management Plan

The operator shall comply with all provisions of a water management plan that has been approved by the Petroleum Administrator. The plan shall include best management practices, water conservation measures, and the use of a drip irrigation system. The water management plan shall be reviewed by the operator every three years to determine if modifications to the plan are required. The operator shall make changes to the plan if requested by the Petroleum Administrator. Any modifications to the water management plan shall be submitted to the Petroleum Administrator for review and approval. The water management plan shall include any elements requested by the Petroleum Administrator.

9531.5.2 Stormwater Runoff

Construction Storm Water Pollution Prevention Plan ("SWPPP"). The operator shall maintain and implement all provisions of a storm water pollution prevention plan ("SWPPP") that has been inspected by the Regional Water Quality Control Board and the Petroleum Administrator. The operator shall provide the Petroleum Administrator with a copy of the SWPPP, and any future modifications, revisions, or alterations thereof, or replacements therefore. The SWPPP shall be updated prior to new construction activities as required by the Regional Water Quality Control Board.

9531.5.3 Groundwater Quality

- A. Prior to any development on any oil and gas the subject site, the operator shall prepare and submit a baseline study of all groundwater resources located within and beneath the project site or directly adjacent to the project site, to specifically include an analysis of the location and reservoir characteristics of all existing groundwater resources, a chemical analysis of the groundwater, and an overall assessment of the groundwater quality.
- B. The operator shall not inject any water spoils/wastewater derived from the any oil or gas drilling operations into any non-exempt or DOGGR exempt freshwater aquifers/basins.
- C. Within 30 days of request by the City, the operator shall deposit funds with the City necessary to retain a third party to prepare a hydrological analysis Groundwater Testing Program prior to any construction activities. Depending on the results of the geo-hydrological analysis the Petroleum Administrator has the discretion to require the operator to install one or more



groundwater monitoring wells; if sufficient groundwater wells are not available in the area, to allow for confirmation that groundwater is not being affected by ~~project oil and gas~~ activities. As part of the Groundwater Testing Program the operator is required to provide the Petroleum Administrator with annual monitoring and testing results.

D. The operator shall be responsible for obtaining a field/site study from DOGGR. If DOGGR does not provide this to the operator then the operator shall submit evidence detailing DOGGR's response to their field/site study request to the Petroleum Administrator for review.

E. The operator shall provide to the Petroleum Administrator the results of any DOGGR required perform cement casing integrity testing to 100% of the anticipated reservoir pressures and cement bonds testing, including radial cement evaluation logs or equivalent, before any wells are put into production and every five years thereafter. Copies of testing results shall be submitted to the Petroleum Administrator

~~F. The operator shall perform cement bonds testing, including radial cement evaluation logs or equivalent as approved by the Petroleum Administrator, before any wells are put into production or injection and every five years thereafter. Copies of testing results shall be submitted to the Petroleum Administrator.~~

9531.6 Noise Impacts

All oil and gas operations at an the oil or gas facility site located within 1,000 feet of any prohibited zones, as indicated in Table 1-1, or any distance as per the discretion of the Petroleum Administrator, shall be conducted in a manner that minimizes noise and shall comply with the following provisions:

A. ~~Noise produced by oil or gas operations shall include no pure tones when measured at a distance of 1,000 feet from the project site. All noise produced from the site shall conform to the noise thresholds specified in Sections 5500, 5501, 5502, and 5503 of the Code.~~

B. Backup alarms on all vehicles operating within the oil field shall be disabled between the hours of 6:00 p.m. and 8:00 a.m. During periods when the backup alarms are disabled, the operator shall employ alternative low-noise methods for ensuring worker safety during vehicle backup, such as the use of spotters.

~~C. All drilling and redrilling~~ Any and all operations, construction, or activities on the oil fieldsite between the hours of 6:00 p.m. and 8:00 a.m. shall be conducted in conformity with a quiet mode operation plan that has been approved by the Petroleum Administrator. The quiet mode operation plan shall be reviewed by the operator every year to determine if modifications to

the plan are required. The operator shall make changes to the plan if requested by the Petroleum Administrator. Any modifications to the quiet mode drilling plan shall be submitted to the Petroleum Administrator for review and approval. The quiet mode operation plan shall include any other additional measures requested by the Petroleum Administrator.

D. All noise producing oil and gas site field-equipment shall be regularly serviced and repaired to minimize increases in pure tones and other noise output over time. The operator shall maintain an equipment service log for all noise-producing equipment.

E. All construction equipment shall be selected for low-noise output. All construction equipment powered by internal combustion engines shall be properly muffled and maintained.

F. Unnecessary idling of construction equipment internal combustion engines is prohibited.

G. The operator shall instruct employees and subcontractors about the noise provisions of this ordinance prior to commencement of ~~each any and every drilling, redrilling, workover, and construction operation~~, and shall annually certify to the Petroleum Administrator that such employees and subcontractors have been properly trained to comply with such noise provisions. The operator shall prominently post quiet mode policies at every oil and gas facility-site.

H. All oil operations on the project site shall be conducted in a manner that minimizes vibration. Additionally, vibration levels from oil or gas operations at the ~~project site~~, as measured from the perimeter of the oil or gas ~~facility site~~, shall not exceed a velocity of 0.25 mm/s over the frequency range 1 to 100 Hz.

I. For all oil and gas operations, including those outside of 1,000 feet as indicated above, ~~Within 30 days of request by the Petroleum Administrator, the operator shall deposit funds for the Petroleum Administrator to retain an independent qualified acoustical engineer to monitor (1) ambient noise levels and (2) vibration levels in the areas surrounding the oil or gas field-site as determined necessary by the Petroleum Administrator. The monitoring shall be conducted unannounced and within a time frame specified by Petroleum Administrator. Shall noise or vibrations from the oil or gas operations-site exceed the noise thresholds specified in Sections 5500, 5501, 5502, and 5503, of the Code or the vibration thresholds specified in Subsection (H) of this Section of the Code, operation can be subject to enforcement under this ordinance including notices of violation per Section 9514. No new drilling, or redrilling permits, CUPs, or DaAs, shall be issued by the City until the operator in consultation with the Petroleum Administrator identifies the source of the noise or vibration and the operator takes the steps necessary to assure compliance with thresholds specified in this ordinance. The results of all such monitoring shall be~~



promptly posted on the website for the oil or gas facility site and provided to the Petroleum Administrator.

9532 Standards for Wells

The operator shall comply with all of the following provisions:

- A. All DOGGR regulations related to drilling, ~~redrilling~~, and workovers, and abandonment operations.
- B. No more than one drilling or workover or any other type of ~~or redrilling~~ rigs shall be present within the oil or gas site at any one time.
- C. If the site is within 1,000 feet of any prohibited zoning as listed in Table 1-1, or if the Petroleum Administrator determines it is necessary, b~~Before~~ the end of each calendar year, the operator shall develop and deliver to the Petroleum Administrator an annual well drilling; ~~redrilling~~re-drilling, reworking, workover, well abandonment, and well pad restoration plan, which shall describe all drilling, _ workover, well abandonment, and well site pad restoration activities that is proposed during the upcoming calendar year, in compliance with the following requirements:
 - 1. The operator may at any time submit to the Petroleum Administrator proposed amendments to the then current annual plan.
 - 2. No drilling, ~~redrilling~~, or abandonment activity may be commenced unless the activity it is described in a current annual plan (or an amendment thereto), which has been approved by the Petroleum Administrator.
 - 3. The annual plan (and any amendments) shall be provided to the Petroleum Administrator for review, comment, and approval. All responses to the Petroleum Administrator's comments on the annual plan shall be submitted to the Petroleum Administrator in writing, and, if timely submitted, will be considered as part of the Petroleum Administrator's review and approval. No annual plan or amendments shall be complete until the operator submits a deposit to the Petroleum Administrator for the estimated costs of review. The operator shall make additional deposit(s) within 15 days of request by the Petroleum Administrator if the initial deposit is insufficient to cover the City's actual costs and expenses for review.
 - 4. The Petroleum Administrator shall complete the review of the annual plan (and any amendments) within forty-five days of receipt, unless the operator has failed to

provide a sufficient deposit for review, and shall either approve the annual plan or provide the operator with a list of deficiencies. Failure to provide a deposit within 15 days request by the Petroleum Administrator may be grounds for rejection of the plan.

D. The annual well drilling, redrilling, reworking, well abandonment, workover, and well pad restoration plan shall comply with the provisions of this subsection, and shall include the following:

1. The maximum number of wells proposed to be drilled, reworked, or redrilled, and/or abandoned;
2. Approximate location of all wells proposed to be drilled, reworked, or redrilled or abandoned;
3. Approximate location of all proposed new well sites and pads, including their size and dimensions;
4. Estimated well and casing target depth of all proposed new and redrilled wells and their estimated-planned bottom hole locations (in GIS coordinates and with depth) as provided by DOGGR through notices of intent or permits;
5. A discussion and DOGGR documentation of the steps that have been taken to maximize use of existing well sites and pads, maximize use of redrilled wells, and maximize the consolidation of wells;
6. Locations, notices, and permits of all proposed well abandonments, if known, in accordance with submission to DOGGR and DOGGR's integrity testing program of idle wells;
7. Location of all well sites and pads proposed to be abandoned and restored;
8. A proposed schedule and phasing of the drilling, workovers, redrilling, well abandonment, well site/pad abandonment, and restoration activities;
9. A discussion of the latest equipment and techniques that are proposed for use as part of the drilling, reworking, and redrilling program to reduce environmental impacts; and



10. All engines used for drilling ~~and, reworking, stimulation, maintenance and redrilling~~ operations shall be operated by muffled internal-combustion engines or by electric motors.
- E. Proven reasonable and feasible technological improvements, which are capable of reducing the environmental impacts of drilling, ~~reworking, and redrilling~~ shall be considered as they become, from time to time, available.
- F. All derricks and portable ~~rigs and masts~~ used for drilling, ~~redrilling~~ and workovers shall meet the standards and specifications of the American Petroleum Institute as they presently exist or as may be amended.
- G. All drilling and workover, ~~and redrilling~~ equipment shall be removed from the site within ninety days following the completion of drilling or workover, ~~reworking, or redrilling~~ ~~re-drilling~~ activities unless the equipment is to be used at the ~~site oil field~~ within five days for drilling or ~~workover, or redrilling~~ operations.
- H. All drilling sites shall be maintained in a neat and orderly fashion.
- I. Belt guards shall be required over all drive belts on drilling, ~~redrilling~~ and workover equipment. Guarding shall be as required by Title 8 of the California Code of Regulations, Section 6622, or as may be subsequently amended.
- J. The use of ~~test-exploratory~~ wells on any oil and gas facility ~~site/pad~~ shall be limited to a single well for a period equal to that allowed through DOGGR's processing (usually one year plus ~~a one year extension~~) ~~period of eighteen months~~, at which point the operator ~~must~~ shall either obtain an abandonment and restoration permit for ~~the such wells~~, ~~revise and update a well permit~~, or obtain a CUP or DA for their use and operation as ~~injection or production~~ wells.
- K. Aboveground pumpjack assemblies are prohibited and all oil and gas ~~sites~~ facilities are restricted to the exclusive use of submersible downhole pumping mechanisms for extraction. Additionally, any well already lawfully existing at the time of implementation of this ordinance using a pumpjack assembly that is extending its period of production beyond the amortization date established in Section 9189.22(a) shall have its aboveground pump replaced with a submersible downhole pumping mechanism. The pumpjack assembly, along with its motor and fuel system, shall be removed from the oil or gas ~~facility site~~ within thirty (30) days of the completion of the operation. It is the intent of this Subsection to uninterruptedly carry forward, and not extend, previously existing amortization periods for the removal of pumpjack assemblies and the installation of submersible downhole pumping mechanisms. The requirements of this subsection K are applicable to all oil and gas ~~facility sites~~ except for such facilities where the



Petroleum Administrator determines that the use of submersible downhole pumping mechanisms is infeasible due to technical reasons or other circumstances which would specifically preclude the use of such technology.

~~For any or re-drilling of wells, the operator shall ensure that the portion of the well bore below the kickoff point for the re-drill has been plugged and abandoned to DOGGR standards.~~

9533 Standards for Pipelines

The operator shall comply with the following provisions related to pipelines throughout operation of an oil or gas ~~facility~~site:

9533.1 Pipeline Installations and Use

- A. Pipelines shall be used to transport ~~petroleum products~~oil and gas off-site to promote traffic safety and air quality.
- B. The use of a pipeline for transporting crude oil or gas may be a condition of approval for expansion of existing ~~processing facilities~~ or construction of new ~~processing facilities~~.
- C. New pipeline corridors shall be consolidated with existing pipeline or electrical transmission corridors where feasible, unless there are overriding technical constraints or significant social, aesthetic, environmental or economic reasons not to do so. As approved by the Petroleum Administrator.
- D. New pipelines shall be routed to avoid residential, recreational areas, and schools. Pipeline routing through recreational, commercial or special use zones shall be done in a manner that minimizes the impacts of potential spills by considering spill volumes, durations, and projected spill paths. New pipeline segments shall be equipped with automatic shutoff valves, or suitable alternatives approved by the Petroleum Administrator, so that each segment will be isolated in the event of a break.
- E. Upon completion of any new pipeline construction, the site shall be restored to the approximate previous grade and condition. All sites previously covered with vegetation shall be reseeded with the same or recovered with the previously removed vegetative materials, and shall include other measures as deemed necessary to prevent erosion until the vegetation can become established, and to promote visual and environmental quality, unless there are approved development plans for the site, in which case re-vegetation would not be necessary.
- F. Gas from wells shall be piped to centralized collection and processing facilities, rather than being flared, to preserve energy resources and air quality, and to reduce fire hazards and



light sources, unless the Petroleum Administrator approves the flaring of gas during the operation of an exploratory well. Oil shall also be piped to centralized collection and processing facilities, in order to minimize land use conflicts and environmental degradation, and to promote visual quality.

G. Newly installed pipelines shall be designed, constructed, and all pipelines shall be monitored, tested, operated, and maintained in accordance with good oil field practice and applicable standards, as set forth in either the American Petroleum Institute (API) (API Rec. Prac. 1110, 3rd Ed., Dec. 1991, and API Spec. effective 1990), American Society for Testing and Materials (ASTM) (ASTM Designation Stand. Spec., 1991), or Code of Federal Regulations 49, Part 192, as these standards may be amended, or other methods approved by the Petroleum Administrator. The Petroleum Administrator may require design or construction modifications, and/or additional testing and maintenance if the Petroleum Administrator determines that good practices and applicable standards have not been used. Good practice includes, but is not limited to:

1. Utilization of preventative methods such as cathodic protection and corrosion inhibitors, as appropriate, to minimize external and internal corrosion.
2. Utilization of pipeline coating or external wrapping for new or replaced buried or partially buried pipelines to minimize external corrosion. The coating or external wrapping shall have a high electrical resistance, be an effective moisture barrier, have good adhesion to the pipe, and be able to resist damage during handling.
3. Pipeline materials utilizing Electric Resistance Welded (ERW) type pipe.
4. Utilization of ~~Employment of~~ equipment such as high and low-pressure or level alarms, automatic notification devices, motorized valves, back-flow prevention devices and safety shut-down devices to minimize spill volume in the event of a leak.
5. If feasible, during piping relocation or replacement operations, locate any new pipelines or parts of a pipeline system above ground, preferably on supports or racks.

9533.2 Pipeline Inspection, Monitoring, Testing and Maintenance

- A. Operators shall visually inspect all aboveground pipelines for leaks and corrosion on a monthly basis.
- B. The operator shall install a leak detection system for oil and gas crude pipelines. The system shall include pressure and flow meters, flow balancing, supervisor control and data



acquisition system, and a computer alarm and communication system in the event of a suspected leak. Temperature, pressure, and flow shall be monitored at each pipeline entry and exit. If any variable deviates by more than 10 percent of the normal operating range, the system shall trigger both audible, communications, and visual alarms. Flow balancing shall be conducted every 5 minutes, 1 hour, 24 hours, and 48 hours with the accuracy defined once the system is established and tested and approved by the Petroleum Administrator.

C. The Petroleum Administrator may order such tests or inspections deemed necessary to establish the reliability and integrity of any pipeline system. Repairs, replacements, or cathodic protection may be required under the jurisdiction of the California State Fire Marshall (CSFM) for offsite pipelines.

D. Any pipeline that has had a leak resulting in the release of a reportable quantity to any State or Federal agency, shall be pressure tested to verify integrity prior to being placed back into service.

E. Pipe clamps, wooden plugs or screw-in plugs shall not be used for any permanent repair approved by the Petroleum Administrator.

E-F. Pipeline abandonment procedures shall be submitted to the Petroleum Administrator for review and approval prior to any pipeline abandonment.

F-G. As per 14 California Code of Regulations Section 1774, a mechanical integrity test shall be performed on all active pipelines that are gathering lines, and all urban pipelines over 4" in diameter, every two years. Pipelines less than 5 years old are exempt from the two year testing requirement. These tests shall be performed to ensure the pipeline integrity by using at least one of the following methods:

1. Nondestructive testing using ultrasonic or other techniques approved by the Petroleum Administrator, to determine wall thickness.
2. Hydrostatic testing using the guidelines recommended by API, or the method approved by the State Fire Marshal, Pipeline Safety and Enforcement Division.
3. Internal inspection devices such as a smart pig, as approved by the Petroleum Administrator.
4. Any other method of ensuring the integrity of a pipeline that is approved by the Petroleum Administrator.

Copies of test results shall be maintained in a local office of the operator and posted online on the same website that provides the monitoring results required in Section 9531.1 for five years and shall also be made available to the City, upon request. The operator shall repair and retest or remove from service any pipeline that fails the mechanical integrity test. The City shall be promptly notified in writing by the operator of any pipeline taken out of service due to a test failure.

9534 Temporary Buildings

During full production of an oil or gas facility, no temporary buildings are allowed to be constructed or maintained anywhere at the facility.

9535 Operational Prohibitions

Operational prohibitions. Notwithstanding any other provision of this article, it shall be unlawful to perform or cause to be performed the following activities within the City in conjunction with the production or extraction of oil, gas or other hydrocarbon substance from any subsurface location within the City:

1. Injection pumps shall not operate at a pressure exceeding 90 percent of the Maximum Allowable Surface Pressure (MASP) as determined by a DOGGR approved step rate test.
2. No cumulative pumping of acid into any well shall occur in a volume in excess of the minimum Acid Volume Threshold for any well as calculated by DOGGR over a 1 year period.
3. No well shall utilize more than 25,000 gallons of water in a 24 hour period, or more than 100,000 gallons per week. This restriction does not apply to produced water, or waste water that originated from a petroleum reservoir.
4. No more than 15 truck trips in a 24 hour period may be used for water deliveries, unless such water is used for a purpose other than extracting oil, gas, or any other hydrocarbon substance.

9536 Prohibited Uses

The owner/operator shall not use or cause to be used hydraulic fracturing, acidizing, or any other well stimulation treatment. Notwithstanding any other provision of this article, it shall be unlawful to use or cause to be used any land within the City for the purpose of conducting or enabling hydraulic fracturing, acidizing, or any other well stimulation treatment in conjunction with the



production or extraction of oil, gas or other hydrocarbon substance from any subsurface location within the City, other than normal maintenance work that utilizes acidizing techniques. However, to the extent that any permittee demonstrates to the Petroleum Administrator, that (1) well stimulation, ~~other than hydraulic fracturing,~~ is necessary to recover the owner/operator's reasonable investment backed expectation established through investment made before the effective date of this ordinance; and (2) that such well stimulation will not create a nuisance due to an adverse impact on persons or property within the City, then the Petroleum Administrator may authorize such well stimulation pursuant to a permit issued pursuant to this ordinance.

9536.1 Violations of Prohibited Uses

Any operator who violates Section 9536 of this ~~ordinance~~ shall be subject to the enforcement proceedings including those found in Sections 9512, 9513, and 9515 in addition to the following specifications:

- A. If an operator is found responsible for violation of Section 9536, the operator will be responsible for paying the City a fine of \$100,000 or more per day, depending on the severity of the violation at the discretion of the Petroleum Administrator.
- B. In addition to fines, the Petroleum Administrator may also require an immediate shutdown of all operations at an oil and gas ~~facility~~ site where violations of Section 9536 have been identified, as long as the shutdown would not otherwise threaten public health, safety concerns or welfare.

Part 3. Development Standards For Well(s) or Site Abandonment, Re-abandonment, Site Restoration and Redevelopment

9537 Development Standards

The following development standards ~~shall~~ will be applied to all well or site abandonment, re-abandonment, site restoration, and redevelopment projects within the City, including any building permit involving a current or former oil or gas ~~facility~~ site:

- A. Any demolition, abandonment, re-abandonment, restoration or redevelopment shall be adequately monitored by a qualified individual, funded by the permittee, owner, or operator and retained by the City, to ensure compliance with those conditions designed to mitigate anticipated significant adverse effects on the environment and to provide recommendations in instances



where effects were not anticipated or mitigated by the conditions imposed on the permit or entitlement. Pre-restoration and post-restoration surveys of sensitive biological resources shall be employed as appropriate to measure compliance.

B. The site shall be assessed for previously unidentified contamination.

1. The permittee shall ensure that any discovery of contamination shall be reported to the Petroleum Administrator and the Los Angeles County Fire Department.

C. The permittee shall diligently seek all necessary permit approvals, including revisions to an entitlement or the demolition. Abandonment, re-abandonment and restoration permit, if any are required, in order to remediate the contamination.

D. The permittee, operator and owner shall be responsible for any cost to remediate the contamination on the site. This ordinance is not intended to limit the permittee, operator or owners' rights under the law to seek compensation from parties who have contributed to contamination of the site.

E. The permittee shall ensure that appropriate notification has been recorded with the County Recorder to describe the presence and location of any contamination left in place under the authority of the Los Angeles County Fire Department.

F. All abandoned or re-abandoned wells shall be leak tested subject to the following requirements:

1. All abandoned wells located within on the oil and gas facility site must be tested for gas leakage and visually inspected for oil leakage. The owner, operator, or responsible party shall apply to the Petroleum Administrator for an inspection permit to witness the well testing. The leak test shall be completed utilizing a "GT-43" gas detection meter, or one of comparable quality approved in advance by the Petroleum Administrator, and shall be conducted by a state licensed geotechnical or civil engineer or a state registered environmental assessor, Class II, or the Petroleum Administrator, or a designee, as determined necessary by the Petroleum Administrator.
2. The permittee shall prepare and submit a methane assessment report is required for each tested well and shall be prepared per the City of LA Department of Building and Safety BS "Site Testing Standards for Methane" (P/BC 2014-101), as may be amended. A well vent and vent cone permit shall be obtained by the property owner or agent. The property owner, operator, permittee or agent may use the City's



consultant to observe the leak test or be responsible for City consultant test fees. Following satisfactory test result~~testing~~, a well vent and vent cone shall be installed to the satisfaction of the Petroleum Administrator and in compliance with the recommendations contained in the methane assessment report.

3. The submitted methane assessment ~~leak test~~ report shall be prepared by a state licensed geotechnical or civil engineer or state registered environmental assessor, class II. A well shall be considered leaking if the leak test report indicates the meter read is greater than the ~~lower explosive limit~~ Level II as defined by the City of LA Department of Building and Safety "Site Testing Standards for Methane", which is set at 1,0500 parts per million.
4. An approved methane assessment ~~leak test~~ report is valid for 24 months from approval ~~acceptance~~ by the Petroleum Administrator. If an abandonment ~~building~~ permit has not been issued by this time, retesting ~~shall be~~ required. Following all testing and inspection, the test area shall be returned to its previous state to the satisfaction of the City building official.
5. If there has not been a change to the well, no leak test is required if a valid methane assessment ~~leak test~~ report, accepted by the Petroleum Administrator and showing no leaks in excess of the ~~lower explosive~~ leak limit, has been completed for an abandoned or re-abandoned well within the prior 24 months.

G. Prior to any development or redevelopment of a current or former oil or gas facility site, or prior to abandoning or re-abandoning any well, the operator or owner shall:

1. Obtain permit(s) and abandon all idled wells consistent with Section 9510.3 and provide a certificate of compliance ~~proof~~ to show that the wells and/or sites are abandoned consistent with standards recommended or required by DOGGR to the satisfaction of the Petroleum Administrator. Permits shall not be required if the idled well is scheduled to actively produce oil or natural gas, or to be used for injection, as part of the development or redevelopment of a former oil or gas facility site and if said production or injection occurs within 5 years of issuance of a CUP or DA under this ordinance.
2. Obtain permit(s) consistent with Section 9510.3 to re-abandon all previously abandoned wells that do not meet standards recommended or required by DOGGR for abandonment in effect at the time of re-abandonment, and provide a certificate of compliance that proof the wells and/or sites are re-abandoned consistent with current



conditions and standards recommended or required by DOGGR to the satisfaction of the Petroleum Administrator. Permits shall not be required if re-entry of an abandoned well is scheduled to occur within 5 years of issuance of a CUP or DA under this ordinance, and if re-entry actually occurs within that period of time.

3. In lieu of Subsections C(1) and (2), above, obtain a deferral covenant from the City requiring abandonment or re-abandonment to standards recommended or required by DOGGR, or equivalent standards as determined by the Petroleum Administrator, at a specific time or upon the occurrence of a future event. The deferral covenant shall be approved as to form by the City Attorney, contain a provision to indemnify and hold harmless the City for damages related to wells not abandoned or re-abandoned consistent with standards recommended or required by DOGGR, and shall be recorded by the operator or owner with the County Clerk prior to approval.

H. Other Development Standards:

1. Permanent structures, or other construction that would be difficult or expensive to demolish, shall not be located on top of any abandoned oil or gas well such that access for a well abandonment rig or other well maintenance equipment is constrained or inhibited from access to the well in the event of a future oil or gas leak. Pervious improvements, such as landscaping and porous parking areas with adequate landscape buffers, may be located on top of an an ~~previously~~ abandoned or re-abandoned well which has passed the leak test consistent with Subsection C of this Section.
2. The owner shall record a declaration of a covenant, in a form subject to the review and approval of the City Attorney, putting future owners and occupants on notice of the following: the existence of abandoned oil wells on the site; that the wells within the wells have been leak tested and found not to leak; description of any methane mitigation measures employed; disclosure that access to these wells has been provided to address the fact that they may leak in the future causing potential harm; acknowledgment that the state may order the re-abandonment of any well should it leak in the future; acknowledgment that the state does not recommend building over wells; and releasing and indemnifying the City for issuing any project permit or entitlement for the project. The covenant shall run with the land, apply to future owners, and may only be released by the Petroleum Administrator.



