



DEPARTMENT OF CONSERVATION

Managing California's Working Lands

Division of Oil, Gas, & Geothermal Resources

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March 8, 2011

Ms. Elsa Arndt, Emergency Manager
Office of Emergency Services
105 East Anapamu Street, Suite 3
Santa Barbara, CA 93101

Dear Ms. Arndt:

Thank you for your recent inquiries concerning abandoned wells along the coast of Santa Barbara County. On September 30, 2010 the California Department of Conservation's Division of Oil, Gas, and Geothermal Resources (DOGGR) spoke about this issue in the City of Goleta at the request of former Assemblymember Pedro Nava, 35th Assembly District, Chair of the Assembly Committee on Environmental Safety and Toxic Materials. The Assembly oversight hearing was conducted to examine environmental concerns stemming from oil and gas production along the California coast. Much of the discussion concerned orphaned, aging and exposed oil-works in and around the City of Goleta. The City's presentation, as well as the hearing agenda, are attached for your convenience. (Attachments A & B).

In response to your request, a map of plugged and abandoned wells in the Santa Barbara County Coastal Area is included here with the Offshore section from the *2008 Report of the State Oil & Gas Supervisor*. (Attachments C & D). Since you also requested copies of studies conducted, copies of two documents prepared by the California State Lands Commission (CSLC): (1) *Report to Commissioners: Production and Marine Terminal Operations in State Waters and the California State Lands Commission's Oil Spill Prevention Programs Protecting State Waters*; CSLC Staff Report, August 20, 2010; and (2) a CSLC memo dated September 14, 2010 with the subject, "Santa Barbara Channel Hazards Removal Program", are also attached. (Attachments E & F).

Brief History of Offshore Oil & Gas Production

Offshore drilling in California began nearly two decades before DOGGR was created by the Legislature. In the *First Annual Report of the State Oil and Gas Supervisor* in 1915, it was reported that the Summerland field in the Santa Barbara Channel had produced about two million barrels of oil from 364 completed wells drilled to between 80 to 400 feet deep. Many of these wells were drilled from piers extending out into the channel.

The first pier was built in 1897. However, the state Legislature's tideland leasing act wasn't passed until 1921. By 1932, the first offshore steel drilling platform was built at Rincon field.

In 2008, oil production from offshore wells accounted for 16 percent of the state's total oil production. Production from state offshore (tideland) leases during the year equaled 14.1 million barrels of oil and 7.0 billion cubic feet of natural gas. This was about a 4.1 percent decrease in oil production and a 2.8 percent decrease in natural gas production from 2007 levels. Although there is a leasing moratorium in State waters, DOGGR does permit drilling, re-works and plugging and abandonments of offshore wells in existing fields. Offshore permitting includes wells drilled offshore and attendant to islands and platforms, in addition to wells directionally drilled onshore to oil and gas fields offshore in state waters. Between the years 2006 to 2008, 73 wells were permitted for drilling offshore, 92 were redrilled, and 93 wells were plugged and abandoned. [Source: 2008 *Annual Report of the State Oil & Gas Supervisor*]

Questions & Responses from the September 30, 2010 Assembly Hearing in Goleta:

Question No. 1: Please describe the status of aging platforms and undersea pipeline systems in the Santa Barbara Channel area.

The only platform under DOGGR's jurisdiction in the Santa Barbara Channel is Platform Holly in the South Elwood Field operated by Venoco. The South Elwood Offshore field was discovered in 1965, and Holly was installed in 1966. Holly is located in 211 ft of water. Of the 26 active wells (3 idle wells) on Holly, none have the ability to flow to the surface. All wells employ some type of artificial lift (gas lift or downhole electrical submersible pump). Peak production on Holly was in 1984, with reported production at 525 barrels per day per well, and today is only 165 barrels per day per well.

DOGGR field staff from our Santa Maria office witness well work when our regulations require an operator to notice the Division. For example, when a new well is drilled, DOGGR field engineers witness the Blowout Prevention/BOPE test. These are the initial tests done when the BOPE stack is in place on the well casing before any down-hole operations are conducted. The Division's staff witnessed two BOPE tests in 2010 on Platform Holly. The Division is not required to witness routine (weekly, daily or monthly) BOPE tests or drills, however, operators are required to report the results of those tests to CSLC.

Quarterly platform inspections are done by DOGGR on Platform Holly. There is a twenty-one page document that guides our field staff during this quarterly platform inspection. One focus of the DOGGR inspection calls for surface (SSV) and subsurface safety valves (SSSV) testing; as well as a function test of the fire eyes/deluge system and the emergency shutdown device (ESD). DOGGR also examines the high and low level alarms, in addition to the high and low pressure sensors; navigational lights on the helipad; start-up the Boston-whaler (engine) if necessary (for small boom). Quarterly inspections take between two to four days, and usually require two to three DOGGR engineers on the platform. CSLC inspects the platform once a month, DOGGR only

quarterly, and we do coordinate our quarterly inspections with CSLC so that they are there when we conduct our inspection. If equipment fails or we note any deficiencies, DOGGR staff can order the operator to repair or replace equipment.

Offshore Pipelines:

The Division's Offshore Well Regulations, found at the California Code of Regulations (CCR) Section 1740 *et seq.*, do not include authority for pipeline testing. The Division deferred this portion of the question to the CSLC and the State Fire Marshal (SFM). The SFM has vested authority over state pipelines from the US Department of Transportation.

Question No. 2: Can small or mid-sized oil companies maintain adequate reserves and other resources to respond to emergency situations as well as to provide funds to insure the clean-up of production facilities that have been in operation for years?

DOGGR Offshore Blanket Bond Requirement:

The Division's statute requires all offshore operators to submit a \$250,000 blanket bond to cover their offshore activities (Public Resources Code Section 3205.1). This amount is for the operation, not per well.

- This includes any drilling, re-drilling, deepening, or any permanent alteration to the casing of one or more wells under ocean waters.
- The bonds are executed by an authorized surety company.
- This bond is exclusive to an operator's offshore operations; it does not cover any onshore operations and a \$1 million bond (to be addressed in relation to question No. 3) does not satisfy this bonding requirement.

There is a provision in our statute (PRC Section 3205.1(b)) that requires offshore operators to provide an additional financial assurance that would be utilized to plug and abandon their offshore wells. The bond size is set by the Supervisor. Though, in this section of our statute an operator may self insure if the Supervisor finds they have sufficient financial resources. The Division has no regulatory authority to verify individual insurance policies held by offshore operators.

Nothing in DOGGR's bonding mechanism limits local government from creating their own bonding requirements. Also, all offshore operators are also required to have bond coverage with the Department of Fish and Game's Office of Spill Prevention and Response (OSPR) for spills, and CSLC for platform and well removal.

As to response to emergency situations, Venoco (the operator of Platform Holly) is a member of Clean Seas – a consortium of offshore operators that pay for the spill response expertise of Clean Seas. Clean Seas has the ability to mobilize FORT (Fisherman Offshore Response Team) in the event of a spill. DOGGR staff are trained

through courses offered by Clean Seas. OSPR is responsible for the California State Oil Spill Contingency Plan.

Question No. 3: How can the Department of Conservation (DOC) address the absence of dedicated financial guarantees to cover local liabilities and losses in the event of an explosion, release or spill?

The Division's statute and regulations do not incorporate any process or jurisdictional authority to cover local liabilities and losses in the event of an explosion, release or spill. The offshore bonds collected could potentially be a source of relief to local governments, but the intent of such bonds is to remediate wells either damaged or orphaned by an operator. Should an operator with a bond be unable or unwilling to repair a damaged well, resulting in damage to life, health, property and natural resources, the bond would be acted upon by DOGGR to contract with third parties to remediate the damaged well and to plug and abandon it to current standards or make necessary repairs.

If an event occurs with an idle well, defined as wells that have not been in production for a continuous six months within a two year period. DOGGR has an idle well program. DOGGR annually sends letters to the operators describing their options concerning idle-well management. Those options for managing idle wells include:

1. Pay an annual fee for each idle well
2. Fund a \$5,000 escrow account for each idle well
3. File a \$5,000 bond for each idle well
4. File an Idle-well Management Plan
5. File a \$1MM blanket bond with the Division

When an operator fails to respond, DOGGR will deem it a default and the idle well(s) will be considered deserted pursuant to PRC 3206, and may be ordered plugged and abandoned by the Supervisor. If, following an order, an operator fails to plug and abandon, the Supervisor may perform the work and impose a lien on their property to recover the costs. The default may be relieved where an operator files a \$1MM blanket bond with the Division.

Question No. 4: What does the DOC do about old oil production piers located above the wave breaking zone of the state tidelands?

In 2004, DOGGR provided CSLC with \$15,000 via an interagency agreement (#2004-016) to, "fund the removal of derelict beach hazards from historical oil development in the Santa Barbara Channel area." The DOGGR contribution was part of an estimated \$400,000 for the entire remediation project. CSLC and the County took the lead on this remediation project.

Near La Goleta Gas field, there were old, hazardous oilfield structures. In 1998, these exposed hazards were removed. In 2005, severe winter storms exposed additional hazardous structures along the beach. In DOGGR's *2006 Annual Report of the State*

Oil and Gas Supervisor, it is noted that from 2005-2006, 16 derrick foundations caissons and numerous H-piles were removed. In 2006, wellhead and wellhead caissons were the main focus of hazard removal. As part of the Goleta Beach Hazards Removal Project, the CSLC cut off and made safe wells "Parker 139" 1, "Sands 137" 1, "James 136" 1, and "Crandall 138" 1, all originally drilled in the early 1930s. DOGGR permitted the well work and was on site when CSLC led the effort that entailed hot tapping the wells, monitoring for leakage, and cutting the wellheads and caissons below, or level with, bedrock.

Question No. 5: What does the DOC do about the legacy sealed old wells along the seabed and the nearshore tidelands waters?

A partial response to this question was provided in relation to remediation of old production piers. If old wells are to be remediated in the tidelands, CSLC takes a lead role. DOGGR will permit the well work and remain on site while the work is being done.

Section 3206 of the Natural Resources Code:

Hazardous and Idle-Deserted Well Abatement Fund (HIDWAF). These monies are for expenditure to mitigate a hazardous or potentially hazardous condition by well plugging and abandonment. The HIDWAF fund was raised to \$2 MM annually from \$1 MM, though the additional \$1 MM will sunset in 2012. The HIDWAF funds are divided amongst DOGGR's six oil and gas districts each year. This includes wells that may have been previously plugged and abandoned, but which present themselves as hazardous or potentially hazardous at present.

Identifying the location of an old well is complicated by the fact that coastal oil and gas exploration pre-dates the creation of the CSLC and DOGGR. DOGGR may know of a particular well through studying historical documents, but identifying the precise location of a well from the late 1800's may be impossible. Yet, DOGGR is often the only regulator with at least some historical records to assist with identifying or locating a well.

The Division's Online Mapping System (DOMS), found on our website, is a useful tool in well identification. The DOMS software includes a topography feature. If the sites are GPS'd, anyone can go into DOMS and enter into the find feature. From there one may be able to identify the locations for old wells. An additional value in doing so is to ascertain what company owned or owns a well, which provides state and local governments an avenue to identify the potentially responsible parties for a problem well.

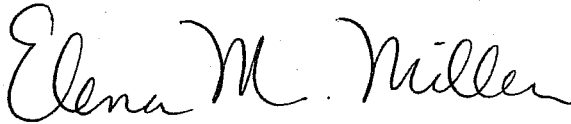
Question No. 6: What does DOC do about the orphaned oil-works (pipelines, motors, encased sumps, well housings, metal straps, bulwarks and pier pilings) that dot the state tidelands, recreational beaches and coastal headlands?

The CSLC and SFM are the proper parties to respond to this question.

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Thank you for the opportunity to address your questions. If you have additional questions for DOGGR, please contact me or the Chief Deputy, Robert S. Habel, at (916) 323-1777.

Sincerely,

A handwritten signature in cursive script that reads "Elena M. Miller". The signature is written in black ink and is positioned above the printed name and title.

Elena M. Miller
State Oil and Gas Supervisor

cc: Derek Chernow, Acting Director, Department of Conservation
Robert S. Habel, Chief Deputy, DOGGR, Headquarters
Marni Weber, Assistant Director, Department of Conservation
Pat Abel, District Deputy, DOGGR, Santa Maria Office