

SANTA BARBARA COUNTY BOARD AGENDA LETTER



Clerk of the Board of Supervisors
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4th Quarter 2004\BOS letter 4th quarter.DOC

TO: Board of Supervisors

FROM: Valentin Alexeeff, Director of Planning & Development

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SUBJECT: 4th Quarter 2004 Report for Energy Platform/Facility Inspections, Audits & Drills

Recommendation(s): That the Board of Supervisors receive and file this informational document on inspections of offshore oil and gas platforms in the Santa Barbara Channel and Santa Maria Offshore Basin, oil piers in the state tidelands, onshore and near-shore facilities that process, store and transport product, as well as certain other energy plants.

Alignment with Board Strategic Plan: The recommendation aligns with Goal No. 2 - A Safe and Healthy Community in which to Live, Work and Visit.

Executive Summary and Discussion: On August 26, 2003, the Board of Supervisors received a report and presentation from the Energy Division and the U.S. Minerals Management Service regarding compliance monitoring of offshore oil and gas platforms. The Board directed staff to monitor the type and frequency of platform inspections by public agencies and prepare a quarterly report. The Board also asked for information on related onshore processing and transport facilities and other energy plants actively regulated by the Systems Safety and Reliability Review Committee.

This report transmits inspection data and information regarding offshore platforms in federal waters of the Santa Barbara Channel and Santa Maria Offshore Basin, Platform Holly and oil piers in the state tidelands, onshore and near-shore facilities that process, store, and transport product, the Santa Maria Asphalt Refinery and the E&B Resources gas plant in Cuyama. Please refer to Attachment 1, a map of oil and gas facilities throughout the county, as you read further. The inspection report covers the period of October through December 2004. The information gathering and analysis were conducted in cooperation with the U.S. Minerals Management Service (MMS), State Lands Commission, Air Pollution Control District and local agencies that sit as the Systems Safety and Reliability Review Committee (SSRRC).

Minerals Management Service (MMS)

During the fourth quarter of 2004, the MMS conducted inspections at each of the 15 platforms in federal waters off of Santa Barbara County, plus at metering stations at Gaviota and Lompoc (Attachment 2). The following table provides a comparative analysis of those inspections by type, frequency and location.

TYPE OF MMS INSPECTION	TOTAL NUMBER OF INSPECTIONS	NUMBER OF FACILITIES	NOTES
Complete Production Annual (PC/A)	2	2	Harmony & Heritage
Partial Production (PP-1, 2, 3, 4)	21	15	All 15 Platforms
Compliance Inspection (AU)	4	3	Heritage, Hidalgo, & Houchin
Complete Drilling (DR)	4	2	Heritage & Hidalgo
Partial Drilling (DP)	13	3	Heritage, Hidalgo, & Houchin
Well Abandonment (AB)	0	0	
Well Completion (CO)	0	0	
Well Workover (WO)	1	1	Hogan
Meter (Oil, Gas) (MT/O, G)	2	2	Gaviota & Lompoc
EPA (EP)	1	1	Platform A
Oil Spill Exercise (OS)	3	3	Habitat, Hogan, & Irene
Accident Investigation (AI)	2	2	Habitat & Houchin
Environmental (EN)	45	17	All 15 Platforms, plus Gaviota & Lompoc metering stations
Flaring (FL)	12	10	A, B, C, Habitat, Harmony, Harvest, Henry, Heritage, Hermosa, & Hillhouse
Hydrogen Sulfide (HS)	40	15	All 15 Platforms
Pipeline (PL)	15	12	A, B, C, Habitat, Harmony, Harvest, Henry, Heritage, Hermosa, Hillhouse, Hondo, & Irene
USCG Safety Guidelines (SG)	23	15	All 15 Platforms
Site Security (SS)	2	2	Gaviota & Lompoc metering stations
Total	190		

Teams of MMS petroleum and structural engineers, environmental scientists and compliance monitors conducted a variety of inspection types. Each platform received at least one partial production inspection that covered a compliance list of 100+ items. Two complete annual production inspections were also conducted, covering upwards of 300+ items each. By area, inspections for platforms in north county waters included Harvest and Hermosa over 2 days, Hidalgo over 14 days due to its active drilling program, and Irene over 3 days. Inspections of platforms off of Gaviota included Heritage over 7 days, as well as Harmony and Hondo over 2 days. Each of the older platforms off of Carpinteria was inspected over 1 to 4 days. In total, 190 categories of inspection were conducted over 50 inspection days. 21 incidents of non-compliance were found, ranging in significance from rust and corrosion to faulty gas detectors, faulty pressure release valves and a small oil leak from Platform Houchin off of Carpinteria.

Comparative data for 2004 is as follows:

2004	TYPES OF MMS INSPECTION	DAYS OF INSPECTION	INCIDENTS OF NON-COMPLIANCE
Fourth Quarter	190	50	21
Third Quarter	248	74	24
Second Quarter	193	61	33
First Quarter	235	58	17

The data indicates a consistent level of type and frequency of platform inspections during 2004. This is attributable to MMS' adjustment of staff resources to meet rising demands presented by increased drilling activities, particularly on Platform Heritage off of Gaviota and Platform Hidalgo off of Point Arguello. The data also suggests a steady-state in the number of incidents of non-compliance.

The MMS plans to close its Santa Maria based inspection office. They will consolidate all personnel and functions for the Pacific Region at their headquarters in Camarillo and conduct all flight operations from Camarillo Airport. The Santa Maria based inspection team will be transferred to Camarillo headquarters at the end of June. Washington D.C. has authorized one additional position that has been long sought for this team – an additional platform/systems inspector. The team will then comprise 1 supervisor, 2 engineers, 2 inspectors and 1 clerk with principle responsibility for overseeing platforms in the Point Arguello Unit and Point Pedernales Unit off of Vandenberg Air Force Base. The team will also provide secondary, back-up coverage to other teams responsible for platforms off of Gaviota, Carpinteria, Ventura and Bolsa Chica.

The MMS views this move as an operational improvement -- not a cutting back or downsizing as occurred in 2003. The number and length of inspection days should improve due to fewer variables affecting helicopter operations, such as inclement weather. Apparently, the team will be grouped with various specialist engineers and environmental scientists on a larger helicopter where they can depart/return from Camarillo Airport on direct flights to/from a platform. The downtime from pick-ups/drop-offs at Santa Maria Airport will be eliminated, as will diversions to Santa Barbara Airport when Santa Maria is socked-in with fog. The grouping of inspection teams with specialists is fundamental to MMS' system of comprehensive engineering based inspections and records audits.

The MMS believes that unitization of their entire staff at one central location will better optimize staff skills, communication, availability and emergency response. The MMS asserts that direct flights from Camarillo Airport to the platforms will provide for additional inspection time per day. The MMS understands that this is a sensitive matter to the Board; thus, Mr. Rishi Tyagi, Chief of Operations for the MMS will be present at the Board meeting to respond to any questions on this or other matters.

State Lands Commission (SLC)

The Mineral Resources Management Division of the State Lands Commission conducts monthly safety inspections of Platform Holly and two oil piers off of Ellwood. The inspections take two to three days and are in addition to random inspections and routine follow-up checks. The monthly safety inspections entail the physical testing of 176 pressure, level, temperature or vibration sensors; 80 wellhead pressure sensors or flow control devices; 100 gas detection sensors and alarm devices; 88 fire and smoke detectors, alarms, and deluge system devices; and 10 emergency shutdown stations. Each well is pressure tested, oil spill response equipment is inventoried, maintenance logs and records are checked, as well as navigational aids.

During the quarter, no significant deficiencies were found. Maintenance or calibration was required on ten devices. The subsea pipelines from Platform Holly and the seep tent pipeline were externally inspected by a remote operated vehicle on October 11. No damage or problems were found. Furthermore, casing pressures at both of the oil piers on Haskells Beach (State Lease 421) were monitored weekly. Pressures were found to be static.

Extensive repairs to pier 421-1 were conducted throughout November and December, resulting in the replacement of a caisson wall at the seaward end of the pier. The repairs were conducted under emergency permits issued by the California Coastal Commission and the City of Goleta. The Energy Division

provided planning and technical support under contract to Goleta. Follow-up technical and environmental analysis has begun and further permitting by those entities is required to remedy any unintended effects of the emergency efforts.

Systems Safety and Reliability Review Committee (SSRRC)

The SSRRC is a staff level body that identifies and requires correction of equipment and operational hazards at large, complex energy facilities. It exercises authority delegated by the Board of Supervisors through the zoning ordinance and final permit actions. It is charged with responsibility to provide technical review and comments on such items as process flow diagrams, piping and instrumentation diagrams, flare stack sizing, relief valves, placement of gas detectors, system redundancy, vapor recovery, leak detection systems, operating plans and emergency response systems. SSRRC also reviews and comments on preliminary systems safety analysis included in CEQA documents. SSRRC membership includes representatives of the Building and Safety Division, Fire Department, Office of Emergency Services, Air Pollution Control District and the Energy Division. SSRRC meets monthly and operates under the open meeting protocols of the Ralph M. Brown Act.

The SSRRC Quarterly Report Table (Attachment 3) provides compliance monitoring data on 10 facilities annually inspected and audited. The SSRRC sets compliance schedules and deadlines and it tracks and reports-out at the monthly meetings and through this quarterly Board letter. A summary of compliance deficiencies for the fourth quarter of 2004 is as follows:

FACILITY	IDENTIFIED PRIORITY 1 AUDIT ITEMS	IDENTIFIED PRIORITY 2 AUDIT ITEMS	OUTSTANDING PRIORITY 1 DEFICIENCIES	OUTSTANDING PRIORITY 2 DEFICIENCIES
ConocoPhillips – Pipelines & Pump Station	0	0	0	0
E & B - Cuyama Gas Plant	5	2	2	0
ExxonMobil Processing Plant	1	0	0	0
Greka Energy – Santa Maria Asphalt Refinery	6	1	3	1
GTC Gaviota Oil Storage Facility	0	0	0	0
POPCO Gas Plant @ Las Flores Canyon	0	0	0	0
PXP - Gaviota Plant	0	3	0	2
PXP - Lompoc Plant	2	14	1	0
Venoco Ellwood Marine Terminal	0	0	0	0
Venoco Ellwood Onshore Processing Facility	0	2	0	0
TOTALS	14	22	6	3

During the fourth quarter, three annual inspections/audits were conducted at the ConocoPhillips pipeline system and pump stations, E & B Cuyama Gas Plant, and the Gaviota Terminal tank farm. By the end of the quarter, six Priority 1 and three Priority 2 items were found to be out of compliance, awaiting design review or awaiting final sign-off.

Comparative data for 2004 is as follows:

2004	PRIORITY 1 ITEMS	PRIORITY 2 ITEMS	PRIORITY 1 OUTSTANDING	PRIORITY 2 OUTSTANDING
Fourth Quarter	14	22	6	3
Third Quarter	20	35	7	5
Second Quarter	34	51	8	6
First Quarter	37	61	6	11

The 2005 SSRRC inspection/audit schedule is as follows:

FACILITY	MONTH OF INSPECTION
ExxonMobil/POPCO Las Flores Canyon pipelines & plant	March
Greka Santa Maria Asphalt Refinery	April
Venoco Ellwood pipelines, plant & marine terminal	June/July
PXP Arguello pipelines & plant	July/August
PXP Point Pedernales pipeline & plant	July
E&B Cuyama gas plant	October
ConocoPhillips pipeline system & pump stations	November
Gaviota terminal tank farm	November

County Office of Emergency Services (OES)

The County, through the auspices of the Fire Department - Office of Emergency Services, provides an additional layer of safety/risk review and environmental protection. This information adds to the picture of day-to-day oversight and coordination among County, state and federal agencies. OES conducts emergency response drills at each energy facility, at least annually, and more often if warranted (Attachment 4). During the quarter, one hydrogen sulfide drill and three oil spill drills were conducted, including drills at PXP- Arguello Gaviota plant, Plains - All American Pipeline, and Gaviota Marine Terminal. All of the drills went smoothly and the emergency preparedness of the operators was found to be satisfactory.

Air Pollution Control District (APCD)

Annually, the APCD conducts a Safety Inspection, Maintenance and Quality Assurance Plan Audit (SIMQAP) of Platform Holly. The audit includes review of operations, maintenance and personnel training programs. The 2004 audit occurred on June 22 and 23 with no Priority 1 or 2 audit deficiencies identified. Furthermore, all 2003 APCD audit deficiencies were verified and accepted as complete.

Annual Facility Incident Tracking

Each year, the County Fire Department provides the Board and other parties with a statistical accounting of reported incidents. The breadth of that report is extensive and goes well beyond the offshore oil and gas related facilities and other energy plants that are regulated by the SSRRC. The Energy Division has summarized reported information about oil spills, gas releases, upset processing conditions and emergency incidents in 2004, at the 10 energy facilities regulated by SSRRC. This is a new feature in this report, one that further tells the story of compliance monitoring in-effect on any given day throughout the county.

Attachment 5 provides a narrative review of year 2004 incidents. The data and information identify several serious incidents, most notably:

- The uncovering, excavation and stockpiling of heavily contaminated soil (PCB and mercury) at the former Hercules gas plant near Tajiguas, without permits or an approved remediation plan (being resolved);
- An elevated concentration of hydrogen sulfide in the sales gas pipeline from the Lompoc Oil and Gas Plant (resolved);
- A flammable gas build-up in the flue of a heater and resulting internal plant upset at the Santa Maria Asphalt Refinery (being resolved);
- Truck accidents and resulting spills of contaminated soil and oily water at Bixby Ranch, in association with the Cojo marine terminal and processing sites abandonment project (resolved); and
- Severe wave damage to one of California's last two oil piers at Haskells Beach (resolved).

The Energy Division is also tracking two other incidents of concern, but beyond the County's jurisdictional control. First, on November 18, the MMS was notified of a natural gas leak from a single well on Venoco's Platform Gail, located ten miles off of Ventura. When the MMS and U.S. Coast Guard arrived on-scene, they learned that the operator had lost control of the well through a risky, unapproved workover procedure conducted by a contractor. The well flowed unabated for 2+ hours, with approximately three barrels of crude oil sprayed onto the grating, deck and walls of the wellbay, as well as the release of natural gas, including hydrogen sulfide. Lower level explosive/combustible gas detectors alarmed, as did hydrogen sulfide detectors, 39 non-essential personnel evacuated the platform in Whitaker escape capsules, 12 personnel remained on-deck to secure the well, the emergency deluge system activated and the flare was extinguished, but with some difficulty. A Clean Seas vessel responded to the site and very small quantities of oil were spotted and captured in the sorbent boom.

The MMS recently released an investigative report and published a related safety alert that can be found at www.mms.gov/omm/pacific/lease/Gail_Incident_MMS_2005-017.htm. The root cause of the incident is understood to be human errors: failure to maintain sufficient hydrostatic pressure in the well during a well workover operation; and removal of a small pin that circumvented the blowout preventer system. Apparently, the operator relied upon its contractor's extensive experience to perform the job correctly, but failed to conduct a job safety analysis for the operation and provide adequate supervision. Incidents of Non-Compliance were issued to Venoco. In turn, Venoco conducted its own incident investigation and has made several changes to its operating procedures and training protocols that the MMS concurs with. Personnel changes were also made and participation by the wellhead manufacturer's technical staff is planned during future operations. This was a serious incident; notwithstanding, the emergency response systems (human and equipment) worked as designed, tested and trained for.

Second, the Energy Division has shared information with state agencies attempting to pinpoint the origins of an oil slick that originated off of the Rincon on January 13. The California Department of Fish and Game – Office of Spill Prevention and Response is the lead agency. A root cause has not been determined, despite speculation about natural seep activity off of Coal Oil Point or a pipeline leak/break during recent floods. If conclusive information develops, staff will report-out on the cause, effects, remedial actions and lessons learned in a future quarterly report.

Concluding Remarks

The quarterly inspection data was reviewed by the Systems Safety and Reliability Review Committee at its March public meeting. The inspection data is also posted on the Energy Division website at www.countyofsb.org/energy, in the “Announcements” page.

Mandates and Service Levels: None

Fiscal and Facilities Impacts: Expenses incurred in analyzing and preparing this report are budgeted in Fund 0001, Program 5000, General Administration as shown on page D-300 of the FY 2004-2005 Budget.

Special Instructions: None

Concurrence: N/A

Attachments:

1. Santa Barbara County Oil & Gas Facilities Map
2. Mineral Management Service’s Table of Inspections, Drills and Audits
3. County of Santa Barbara’s SSRRC Table of Inspections and Audits
4. County of Santa Barbara’s Office of Emergency Services Table of Drills
5. Planning & Development’s Energy Division Annual Incident Tracking Report