

**Process Safety Management  
Status Report**

**Submitted to the Joint Legislative Budget Committee**

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**State of California  
Edmund G. Brown Jr., Governor**

**Labor and Workforce Development Agency  
David Lanier, Secretary**

**Department of Industrial Relations  
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Pursuant to The Supplemental Report of the 2017-18 Budget Act, Item 7350-001-3121, this report is prepared for the Joint Legislative Budget Committee and includes a discussion of enforcement activities in 2017, staffing, and related issues facing the Process Safety Management (PSM) Unit.

The PSM Unit, within the Department of Industrial Relations' Division of Occupational Health and Safety, is responsible for inspecting refineries and chemical plants covered under Labor Code sections 7850–7873 that handle large quantities of toxic and flammable materials. Health and safety standards enforced by the PSM Unit, including requirements to provide effective training to employees, are intended to prevent catastrophic fires, explosions, and releases of hazardous chemicals.

### Enforcement

The PSM Unit enforces occupational safety and health standards applicable to 14 petroleum refineries and 1,940 chemical plants in California. The chemical plants handle or process 50 million to 120 million pounds of hazardous chemicals every year. Inspections target high-risk facilities and focus on timely, effective abatement.

Table 1. Inspections completed during calendar year 2017

Inspection Type	Refinery		Chemical (Non-Refinery)	
	#	%	#	%
Planned, or Program Quality Verification (PQV)	4	8%	42	53%
Complaint-Based	2	4%	22	28%
Interagency Referral-Based	5	10%	6	8%
Accident-Based	4	8%	4	5%
Refinery Turnaround Inspections (under Labor Code § 7872)	4	8%	N/A	N/A
Contractor Inspections (to ensure compliance with 8 CCR § 5189.1(h))	31	62%	5	6%
<b>TOTAL</b>	<b>50</b>	<b>100%</b>	<b>79</b>	<b>100%</b>

Table 2. Classifications of violations cited in inspections conducted during calendar year 2017

Violation classification*	Refinery (50 inspections)		Chemical (Non-Refinery) (79 inspections)	
	#	%	#	%
Serious	6	32%	68	30%
General	11	58%	152	66%
Regulatory	1	5%	3	1%
Willful	0	0%	3	1%
Repeat	0	0%	0	0%
Notice in lieu of citation	1	5%	4	2%
<b>TOTAL</b>	19	100%	230	100%

\* *Serious means there is a realistic possibility that death or serious physical harm could result from the hazard. General means the violation is not serious but does have a relationship to the occupational safety and health of employees. Regulatory means the violation is not serious or general and pertains to permit, posting, recordkeeping, or reporting requirements. Willful means evidence shows that the employer committed an intentional and knowing violation. Repeat is where the employer repeats a prior violation of a substantially similar regulatory requirement. A notice in lieu of citation may be issued when the violative condition is not directly related to employee safety or health or when the violative condition type is general or regulatory and is not immediately related to employee safety and health.*

Table 2 does not show the results for several in-progress refinery inspections that began in the second half of 2017, so the reported outcomes do not reflect the full impact of enforcement efforts to date. The delay in beginning these inspections was caused by two significant refinery inspections that merit mention because of their extent and importance. The PSM Unit was able to successfully carry out these comprehensive enforcement efforts due to the recently approved increase in inspectors and the advanced technical training PSM inspectors receive.

### ***Chevron Richmond Refinery***

This inspection required 2,600 hours of inspector time and additional outside subject matter expertise. Enforcement efforts uncovered a systemic need to address pressure relief valves throughout the refinery. At the conclusion of this six-month investigation, the PSM Unit cited Chevron for one serious, one regulatory, and eight general violations. Following appeal, the settlement agreement documented Chevron’s acknowledgement of and commitment to addressing the process safety issue discovered during the inspection by requiring the refinery to replace or re-calculate every pressure relief valve setpoint in the facility in accordance with Recognized and Generally Accepted Good Engineering Practices (RAGAGEP). This comprehensive abatement will significantly increase safety for the facility and surrounding communities.

## **Torrance Refinery**

The Alkylation/Hydrofluoric Acid Unit at the Torrance Refinery has garnered much attention from the public, regulators, and the Legislature because of the risks for workers and surrounding communities associated with its activities. The PSM Unit opened a PQV inspection at this refinery in July 2017 and had dedicated 2,800 hours of inspector time to this inspection as of January 1, 2018, compared to the standard 1,200 hours per inspection. In response to extensive evaluations performed by PSM Unit inspectors of the health and safety risks and best practices to address them, the refinery has assigned a special team to improve its safeguards. The new safeguards exceed existing abatement requirements and will greatly enhance the safety of workers and the public.

## **Staffing**

Current staffing levels in the PSM Unit are shown in Table 3. As of March 1, 2018, there was one vacant Senior Safety Engineer and two vacant District Manager positions in the process of being filled.

Table 3. Positions in the PSM Unit

Classification	Refinery Positions		Chemical Positions (Non-Refinery)		PSM Positions (Refinery & Chemical)	
	Filled	Vacant	Filled	Vacant	Filled	Vacant
Statewide Manager & Policy Advisor	N/A		N/A		1	
District Manager	1	1	1	1	N/A	
Principal Safety Engineer	N/A		N/A		1	
Senior Safety Engineer	1		1		1	1
Associate Safety Engineer	7		8		N/A	
Assistant Safety Engineer	N/A		1		N/A	
Junior Safety Engineer	1		8		N/A	
Junior Industrial Hygienist	1		N/A		N/A	
Staff Services Analyst	N/A		N/A		2	
Management Services Technician	2		N/A		N/A	
Office Technician	N/A		3		N/A	
<b>Total</b>	<b>13</b>	<b>1</b>	<b>22</b>	<b>1</b>	<b>5</b>	<b>1</b>

Note: Because 15 of the 23 Chemical Positions were only recently established on July 1, 2017, this report does not reflect the full capacity and capability of the non-refinery unit.

### **Discussion of any challenges**

While the PSM Unit is now fully staffed and on track to meet the PQV inspection goals outlined in the Budget Change Proposal, initial achievements were delayed. Staff changes and turnover combined with the mandatory postponement of hiring newly appropriated positions until July 1, 2017 protracted the proposed timeline.

The PSM Unit is committed to robust training of staff to ensure effective enforcement and promote compliance with strong standards to protect the health and safety of the state's workforce. In addition to mandated enforcement and operations training, the PSM Unit increased inspector training from the federally mandated 160 hours in 2012 to 340 hours in subsequent years to ensure staff are trained on new regulatory requirements in California Code of Regulations, title 8, section 5189.1 (effective October 1, 2017) and legislative mandates in Labor Code sections 7872 and 7873 (SB 1300, 2014) and Health and Safety Code section 25536.7 (SB 54, 2013).

Empowered by the new legislation and regulation, and the subsequent staffing approvals, PSM Unit now has the tools and quality and quantity of staff necessary to successfully enforce California's internationally recognized standards in process safety.