



**Public Comment to the Richmond City Council
Statement by Eli Moore
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**“Flaring events at Chevron Richmond Refinery, 2004-2007, and Anticipated Flaring
Considered in the Chevron Energy and Hydrogen Renewal Project Draft
Environmental Impact Report”**

July 15th, 2008

Honorable City Council members and Richmond residents: Hello and thank you for allowing me to present comments on the issue of flaring at the Chevron Richmond refinery. My name is Eli Moore and I am a Research Associate with the Pacific Institute, an Oakland-based nonpartisan research institute that works to advance environmental protection, economic development, and social equity. The Pacific Institute is a lead partner in the West County Indicators Report, a community-based research effort producing neighborhood level indicators of environmental, economic, and community health.

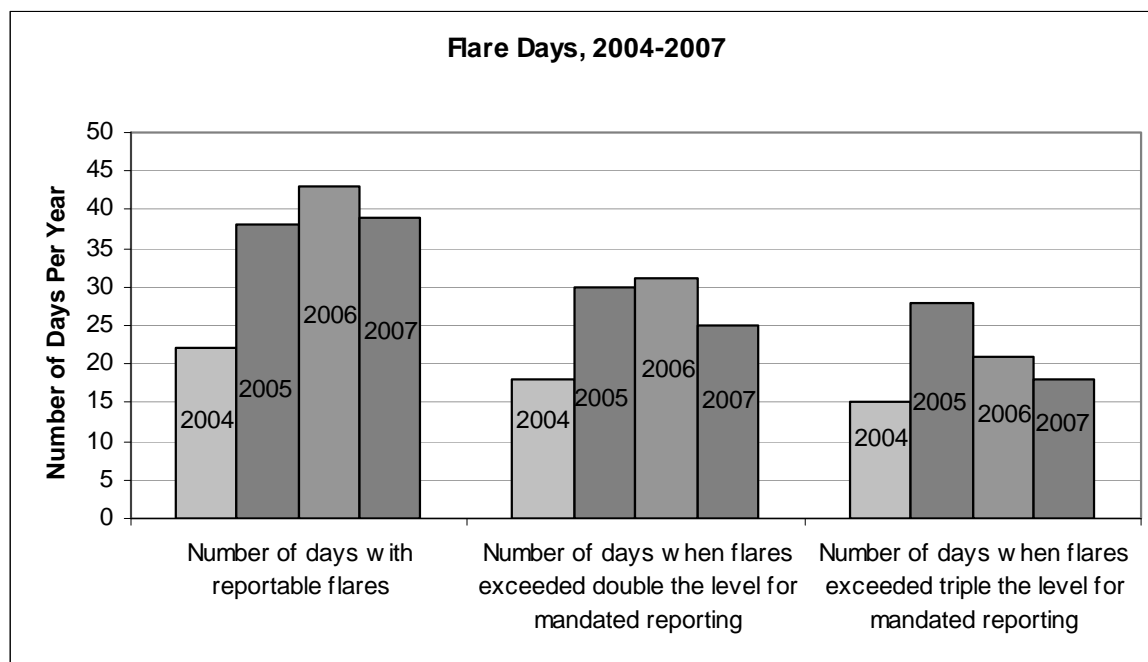
In response to community concerns regarding flaring at the Chevron refinery, the Pacific Institute conducted an independent study to answer the question, “How many days per year of significant flaring have occurred since flare monitoring began in 2003?” Our methodology was to use the publicly available data for 2004-2007 submitted each month by Chevron to the Bay Area Air Quality Management District in accordance with the flare monitoring rule. This research is relevant to the Chevron Energy and Hydrogen Renewal Project Draft EIR sections on Existing Setting (section 4.1.2.1), Air Quality (section 4.3), and Public Health (section 4.12).¹ While the draft EIR states on page 4.1-13 that the number of flaring events requiring “additional reporting” at the facility decreased from 2005 to 2006, we found that the number of days of reportable flaring, as defined by the

¹ City of Richmond Department of Planning and Building Services. (May, 2007). Chevron Energy and Hydrogen Renewal Project (Draft) Environmental Impact Report. Richmond, CA: City of Richmond. Retrieved from <http://www.ci.richmond.ca.us/index.asp?nid=832>.

Bay Area Air Quality Management District, was significantly higher and actually increased from 38 to 43 during that time period.

To measure the extent to which the Richmond Chevron Refinery flaring events exceed the Bay Area Air Quality Management District (Air District) health-based threshold for reporting flares, we calculated the number of ‘flare days’ during each of the last four years using flare monitoring data available through the Air District website.² We use the formal definition of a “reportable flare” adopted by the Air District in their 2006 flare reduction rule. According to the Air District, “reportable flares” are defined when total flow from flares is above 500,000 standard cubic feet of gases, and/or emits more than 500 pounds of sulfur dioxide in a 24-hour period.³ The Air District has shown that emissions above this threshold can negatively impact the health and quality of life of nearby communities.⁴

Graph 1: Number of days of reportable flaring, 2004-2007⁵



² Pursuant to BAAQMD Regulation 12, Rule 11, all bay area refineries must submit reports every 30 days documenting flaring events that exceed the threshold for a reportable flaring event. The data is posted at: <http://www.baaqmd.gov/enf/flares/>.

³ Bay Area Air Quality Management District. (April 5, 2006). Regulation 12 Miscellaneous Standards of Performance, Rule 12 Flares at Petroleum Refineries. Available at http://www.baaqmd.gov/dst/regulations/amended_regs.htm.

⁴ Alex Ezersky, Staff Report: proposed amendments to Regulation 12, Miscellaneous Standards of Performance, Rule 12, Flares at Petroleum Refinery March 3 2006, Bay Area Air Quality Management District

⁵ Bay Area Air Quality Management District. Flare Monitoring Data Submittals. Retrieved from <http://www.baaqmd.gov/enf/flares/>.

Graph 1 and Table 1 depict the number of days per year when a reportable flare occurred, as well as the number of days when flare emissions were more than double and more than triple the level set by the Air District for a reportable flare.

Table 1: Number of days of reportable flaring, 2004-2007⁶

Year	Number of days with reportable flares	Number of days when flares exceeded double the level for mandated reporting	Number of days when flares exceeded triple the level for mandated reporting
2004	22	18	15
2005	38	30	28
2006	43	31	21
2007	39	25	18

The data shows 38 flare days in 2005 and 43 flare days in 2006. The total number of 2007 flare days remained higher than the 2005 level. The data also shows that of the total flare days, approximately half of them produced flare emissions that were more than triple the AQMD threshold.

There is a limitation to this research in that the flare monitoring mandated by the Air District only records the total gasses emitted, the non-methane hydrocarbons, and sulfur dioxide, leaving out many known air toxics. Therefore, a full analysis of the health impacts of refinery flaring cannot be conducted until monitoring is expanded to include a comprehensive range of toxic air pollutants.

The findings of this research pose several questions relevant to the Draft EIR under consideration. The draft EIR states that the number of flaring events requiring additional reporting at the facility decreased from 26 in 2005 to 15 in 2006.⁷ It is unclear how the threshold for additional reporting is being defined here, but the Air District data on

⁶ Bay Area Air Quality Management District. Flare Monitoring Data Submittals. Retrieved from <http://www.baaqmd.gov/enf/flares/>.

⁷ City of Richmond Department of Planning and Building Services. (May, 2007). Chevron Energy and Hydrogen Renewal Project (Draft) Environmental Impact Report. Richmond, CA: City of Richmond, p. 4.1-13.

reportable flaring during the same period shows that the number has actually increased from 38 to 43.

The differences in these results raise questions about what the report means by ‘flaring requiring additional reporting,’ and what data the report is using to draw conclusions. The appropriate way to measure environmental impact in this case would be by using publicly available data, which allows the City to monitor future impacts of a proposed project. For an environmental impact report to rely primarily on private or internal data when public data is available undermines the spirit of transparency and public accountability that underlie the EIR process, and makes it impossible for the City to assess in the future whether an approved project did in fact have no significant environmental impact.

The draft EIR also states that “Most flaring events were minor in duration and size, and would have likely been imperceptible to the public” (p 4.1-13). What is important here is not the total number of flaring events that took place, but the magnitude of the largest ones. A good analogy here is that the seat belt law is necessary not because most car accidents in the United States are minor fender benders, meaning the average level of harm is low, but because of the possible harm that can result from the worst kinds of accidents.

If you look at all of the reportable flaring events, the Air District data shows that over 70% of the flare days between 2004 and 2007 had flares that released more than double the Air District level of total gasses or sulfur dioxide requiring reporting, **and over half of the days had flares with more than triple these levels.** From a public health perspective, acute exposure episodes such as these large flaring events have the potential to be more harmful than amounts released slowly over time, and cause most harm to the most vulnerable residents (children, elderly, and those with respiratory conditions). This conclusion of the draft EIR is irrelevant at best, and potentially misleading.

The draft EIR cites the Flare Minimization Plan (FMP) required by the Bay Area Air Quality Management District as reason to believe that flares will not increase due to the

proposed project (pages 4.1-13 and 4.1-14). For the city council to judge whether the FMP will effectively reduce flaring, it is important to understand the flexibility and newness of this rule. The Air District flare reduction rule requiring the flare minimization plans does not give any strict numerical standards that can be violated. Instead, the refineries submit a draft plan and the agency assesses them on a case by case basis. Chevron submitted their first Flare Minimization Plan in August 2006, and it was revised on July 10th, 2007.⁸ Not enough time has passed to know whether the plan will in the longer term effectively reduce flaring.

These data point to the need for additional analysis with more robust methodology that considers publicly accessible information in assessing the impact of the proposed project on flaring events. The inconsistencies noted in the draft EIR reporting of recent flaring raises doubts about how well the EIR fully accounts for the project's impact on human health and air quality. With these considerations in mind, we urge the City Council to re-circulate the EIR for additional analysis.

⁸ Chevron Products Company. Flare Minimization Plan; Richmond Refinery. Revised July 10, 2007. Retrieved on July 10, 2008, from http://www.baaqmd.gov/enf/flares/reg_12_12.htm.