

1/9/10

Settlement Proposal, Sponsored by the Attorney General's Office, for Resolution of Disputes Over Chevron-Richmond Expansion

1. MONITORING, POLLUTANT RELEASE IDENTIFICATION AND CAUSAL ANALYSIS

(a) Chevron shall perform the following monitoring:

- Fugitive sampling, leak detection, and repair for hydrogen sulfide (H₂S)-- Chevron will comply with the requirements of Bay Area Air Quality Management District ("BAAQMD") Regulation 8 Rule 18, Equipment Leaks, expanding application of the rule's provisions to apply not only to leaks of organic compounds, but to H₂S. These requirements will be added to Chevron's BAAQMD permit, and Chevron will agree to BAAQMD enforcement of these provisions. Chevron shall pay for an independent consultant to identify the lowest achievable detection limits, monitoring methods and equipment, and the lowest feasible leak limits for the sulfur compounds. If BAAQMD determines that increased fees are necessary for enforcing these standards, Chevron will pay these fees to the BAAQMD.
- Portable mercury sampling of each identified leak-- Using portable mercury monitoring equipment applying appropriate methods as identified by the independent expert identified in paragraph 1(f), Chevron will take air samples of the mercury details to be identified.
- Mercury sampling -- Chevron shall monitor mercury in the fuel gas from all mix drums on a daily basis.
- DIAL Differential Absorption LIDAR¹ (DIAL) monitoring -- Chevron will hire an independent contractor approved by the parties to monitor storage tanks, fugitive components, and all other Refinery facilities using DIAL. The results shall be used to identify components that require repair or replacement with leakless technology, which will be implemented within [tbd] months. At a minimum, a full refinery-wide DIAL monitoring program shall be conducted at least once each year during hot weather in summer. Chevron shall provide all necessary cooperation to the contractor, the City, interested agencies, and Plaintiffs, including providing advance notice and access for City, as well as interested agency and Plaintiff representatives.
- New BAAQMD monitoring stations at fenceline---Chevron will fund and cooperate with the BAAQMD in implementing the expansion of current Refinery ground-level monitoring stations, which now provide continuous monitoring for hydrogen sulfide and sulfur dioxide. The expanded fence line monitoring shall include additional chemicals to be identified.

¹ LIDAR: http://vulcan.wr.usgs.gov/Monitoring/LIDAR/description_LIDAR.html

- (b) **Flare gas and fuel gas monitoring:** Chevron shall monitor Refinery fuel gas and flare gas (vent gas) for hydrogen, speciated hydrocarbons, total sulfur, nitrogen, arsenic, cadmium, mercury, and selenium both monthly, and during each flaring event, and shall report all results of such monitoring to BAAQMD and Plaintiffs.
- (c) **Process effluent monitoring:** Chevron shall monitor its process effluent discharge E-001 for arsenic, mercury and selenium using methods specified in its NPDES permit weekly, and shall report and certify all results in its monthly monitoring reports to the Regional Water Quality Control Board (“RWQCB”), and shall simultaneously provide each report to Plaintiffs.
- (d) **Refinery feedstock quality monitoring:** Chevron shall measure and report publicly the monthly average and running annual average for each parameter listed below for the crude oil processed, and, separately, the separate “gas oil” stream that bypasses Refinery crude distillation, processed by the Refinery. The parameters shall include gravity in degrees API, total sulfur in percent weight (% wt.), total nitrogen (% wt.), total arsenic in parts per million weight (ppm wt.), total nickel (ppm wt.), total cadmium in parts per billion weight (ppb wt.), total mercury (ppb wt.), and total selenium (ppb wt.). For crude, Chevron shall provide analysis of a representative sample of the total crude petroleum feedstock processed, taken at least once daily at the point where such feedstock first enters the process unit(s) after blending. For gas oil, Chevron shall provide analysis of a representative sample of the gas oil and any other cut of whole crude that was not produced at the Refinery but is processed at the Refinery, taken at least once daily, at the point where such feedstock first enters processing after blending. The averages reported shall be based on these daily samples.
- (e) **Incident investigation:** For each “significant Refinery emissions incident” that triggers flaring causal analyses under BAAQMD Rule 12-12, triggers incident root cause analyses under the Contra Costa County Industrial Safety Ordinance, or both, the independent expert identified in paragraph 1(f) shall conduct an independent root cause analysis of the incident. The significant incident analysis shall include, but shall not be limited to, a review of all data reported to BAAQMD and/or the County for the incident and for potentially related incidents, and shall determine whether the quality of oil processed by the Refinery was a cause or contributing factor, and shall prepare draft and final reports for public review and comment. Chevron shall cooperate with the independent expert and allow access to the Refinery and relevant records.
- (f) **Independent expert review:** An independent expert with refinery engineering, air quality, water quality, and regulatory experience who is a professional engineer registered in the State of California and is acceptable to Plaintiffs shall be retained by the City and funded by Chevron. The expert will review and analyze any and all monitoring for purposes of this agreement without limitation. The expert shall identify any increase in the emissions, discharge or release of any pollutant or class of pollutants. The expert shall be authorized to identify any additional monitoring

needed and to take samples for such additional monitoring as appropriate. The expert shall submit draft and final reports evaluating data collected under this Agreement and other agreements or requirements related to the Refinery and/or Project, to the City, which shall be made available for public review and comment to the City.

2. EMISSION REDUCTION MEASURES

Chevron shall (a) install sufficient additional capacity and backup to recover all gases from planned and unplanned shutdowns (e.g., 97% of largest hourly flow since 2004) to prevent flaring; and (b) promptly replace the very old, inefficient and dirty boilers that were originally identified for replacement and permitted as part of its project.

3. ADDITIONAL GREENHOUSE GAS EMISSIONS MITIGATION

(a) **Onsite photovoltaic (PV) installations:**

Chevron will hire an expert consultant to design and oversee installation of 15 megawatts (MW) of PV panels on Chevron Richmond property. This is in addition to the 12 MW to which Chevron committed in the Community Benefits Agreement. Chevron will work with the consultant to identify the best siting to maximize solar exposure and minimize building and environmental impacts. Chevron will work with the consultant to connect the PV installation to the grid. Chevron will reduce its grid electricity purchase by the same amount (instead of selling the solar-generated electrical energy as surplus).

(b) **Richmond PV installations:**

Chevron will fund an expert consultant to design and install 15MW of PV power on low income residences within the City of Richmond by [tbd date]. In the alternative, Chevron may achieve equivalent greenhouse gas reductions through energy conservation and efficiency improvements and/or solar hot water systems, with greenhouse gas equivalency to be calculated by a mutually agreeable expert consultant. Preference for performing this work should be given to qualified local residents and/or those trained in relevant City of Richmond job training programs.

(c) **Energy conservation and efficiency:**

Chevron shall reduce the total fossil fuel combustion energy used by the Refinery by twenty percent (20%) on or before January 1, 2020. Compliance with this requirement shall be measured by the total fossil fuel combustion energy per barrel of oil refined, including all heat, steam, electrical and other energy generated onsite and all such energy, including electricity generated offsite and imported by the Refinery, measured as an annual average and reported on January 1 of each year.

4. POLLUTION PREVENTION AND OIL QUALITY-RELATED MEASURES

(a) **Crude gravity:**

On or before July 1, 2010 and in any case before operating any project equipment, Chevron shall cause its Title V Air Permit to be modified by the BAAQMD to include a limit on the gravity or “heaviness” of crude oils processed by the refinery that limits the crude slate to a running annual average of 28 °API or lighter, as measured by the sampling and analysis specified in paragraph 1(d).

(b) **Increased emission/discharge corrective action:**

Any significant deviation in monitored pollutants relative to the baseline² shall be investigated by the independent expert identified in paragraph 1(f) to determine cause(s) and method(s) to mitigate.³ Chevron shall modify operations to prevent future occurrence. Factors to be considered in such modifications shall include but not be limited to process changes, operational changes, pollution control equipment, and modifications in the crude and gas oil slates. Such correction shall be achieved as soon as practicable [within six months].

(c) **Prevention of potentially catastrophic incidents:**

Any significant Refinery emissions incident⁴ shall be investigated by the independent expert to determine cause(s) and method(s) to mitigate. The incident investigation shall include but not be limited to whether processing heavier and/or more contaminated oil caused or contributed to the incident. Chevron shall modify operations to prevent future occurrence. Factors to be considered in such modifications shall include but not be limited to process changes, operational changes, pollution control equipment, and modifications in the crude and gas oil slates.

5. PROHIBITION ON CREDIT FOR EMISSION REDUCTIONS

Air emissions reductions related to the project and this agreement, including but not limited to criteria pollutant and greenhouse gases, shall not be used for offsets or pollution credits. Chevron shall provide notice of this requirement to the BAAQMD.

6. REPORTING REQUIREMENTS

² Note: We will need to specify the monitoring and analysis to establish such baselines.

³ Methods to return and maintain release rate at or below baseline.

⁴ As defined in paragraphs 1 (e) ; *see also* expert description in paragraph (f).

In addition to the requirements for reporting specific results to various government agencies and Plaintiffs above, Chevron and the City shall provide the following:

- (a) Chevron shall provide all results to the City from the monitoring required by this agreement at the time such results are available, and the City shall post all such results on its website within five (5) working days of receiving such results from Chevron.
- (b) Except in the event that plans are initiated less than 45 days in advance, Chevron shall provide notice of any and all planned flaring to the City at least 45 days before initiation of each planned maintenance event that may result in flaring, and the City shall post such notice on its website within five (5) working days of receiving such notice from Chevron. Each notice shall, at a minimum, include the date and time when the maintenance event is planned to initiate, the date and time when the potential for flaring resulting from the maintenance is anticipated, the potential duration of the flaring that is anticipated, and the process unit or units involved in the planned maintenance. If planned maintenance that may result in flaring is planned less than 45 days in advance, Chevron shall provide notice of such flaring at the earliest date when such events are planned, and the City shall post such notice on its website within five (5) working days of receiving such notice from Chevron.

7. Additional Matter

If parties to the confidential negotiations reached agreement on certain terms (to which the AG is not privy). Those terms are to be incorporated into a final settlement, and there are some additional issues raised in the confidential negotiations (again, outside of the knowledge of the AG) which need to be resolved as part of final resolution.