

**PHILLIPS 66 – SAN FRANCISCO REFINERY  
CHANGE OF CONDITIONS PERMIT AT THE UNICRACKER COMPLEX  
APPLICATION NUMBER 27954**

**FINDINGS AND SUPPORTING FACTS REGARDING THE  
ENVIRONMENTAL IMPACT REPORT**

Contra Costa County Community Development Department (County) acted as Lead Agency under the California Environmental Quality Act (CEQA) for the ConocoPhillips Clean Fuels Expansion Project (the “CFEP”), which the County evaluated in the ConocoPhillips Rodeo Refinery Clean Fuels Expansion Project EIR. As a responsible agency under CEQA, the Bay Area Air Quality Management District (BAAQMD or Air District) participated in the EIR process for the CFEP and has closely reviewed and relies on the County’s Final EIR (the “EIR”).

**PROJECT DESCRIPTION**

Phillips 66 has submitted Permit Application #27954 to the BAAQMD to amend condition 22965 part 1 and condition 22969 part 1 in order to increase the throughput of the unicracker complex by 4,000 barrels per day (the “4,000 bpd throughput increase” or the “Project”). The affected sources are:

- **Source 307: U240 UNICRACKING UNIT 240**
- **Source 434: U246 High Pressure Reactor Train**

Condition 22969 limits the throughput of High Pressure Reactor Train (S434) to 8,395,000 barrels per year. Phillips 66 has requested that this limit be revised to 9,855,000 barrels per year, equivalent to daily throughput at Source 434 increasing from 23,000 barrels per day (bpd) to 27,000 bpd. In addition, Condition 22965 limits the throughput of the Unicracking Unit (S307) to 65,000 bpd. The S434 High Pressure Reactor Train is integrated into the S307 Unicracking Unit, so that the throughput of S307 includes the throughput of S434. As a result, the proposal to increase the throughput of S434 by 4,000 bpd would correspondingly increase the throughput of S307 from 65,000 bpd to 69,000 bpd. Phillips 66 has accordingly requested that this value be revised to 69,000 barrels per day to account for the increase in throughput at S434.

The S434 High Pressure Reactor Train was added to the Refinery’s Unicracker Complex as part of the CFEP, which the Air District granted ConocoPhillips authority to construct on October 5, 2007 (BAAQMD Permit Application #13424). The purpose of the CFEP was to build S434 and various support equipment to enable the Refinery to process heavy gas oil (HGO), which was then a by-product the Refinery produced onsite and exported.

In the permitting process for the CFEP, the stated capacity of the Reactor Train was 23,000 bpd, the capacity on which the current S307 and S434 throughput limits are based. However, in the course of operating S434 and the suite of support equipment analyzed in the EIR, the Refinery determined that it can run 4,000 bpd more through the Reactor Train than initially believed, without exceeding the utilization rates analyzed previously for any of the support equipment. As explained above, the throughput limit for the Reactor Train is an annual limit, while the throughput limit of the Unicracker as a whole, which includes the throughput of the Reactor

Train, is a daily limit of 65,000 bpd. As a result, the existing permit conditions allow the Refinery to run more material through the Reactor Train in a day than its nominal 23,000 bpd capacity, so long as the total throughput for the Unicracker as a whole does not exceed 65,000 barrels on any day. Periodically, the Refinery has operated in this manner, maintaining the total throughput of the Unicracker to no more than 65,000 bpd, of which more than 23,000 bpd was attributable to the High-Pressure Reactor Train. The requested change of conditions will allow the refinery additional flexibility and processing capacity to operate the process units more efficiently and to more easily recover from planned outages for maintenance.

## **AIR DISTRICT CEQA FINDINGS AND SUPPORTING FACTS**

As the CEQA Lead Agency, the County determined that all of the CFEP air pollution impacts would be mitigated to a less-than-significant level or avoided by incorporation of specified mitigation measures into the project. After a careful review of the record and its own analysis, the Air District makes the following findings as required by Section 21081 of CEQA and Section 15091 of the CEQA Guidelines.

First, the Air District finds that the operations and equipment at the Refinery affected by the Project described in Application #27954 have already undergone full CEQA review and that the proposed throughput increase does not materially alter the analysis of, nor change any conclusion reached by, the FEIR. The Air District finds that neither recirculation of the Final EIR nor a preparation of a subsequent/supplemental EIR is required for the 4,000 bpd throughput increase under Public Resources Code Section 21166 and CEQA Guidelines Section 15162, as (1) the proposed throughput increase involves no substantial changes to the CFEP that will require major revisions of the FEIR due to new significant environmental effects or a substantial increase in the severity of effects; (2) the proposed throughput increase involves no substantial changes with respect to the circumstances under which the CFEP is undertaken that will require major revisions of the FEIR; and (3) no new information that was not known at the time the FEIR was prepared is present showing there will be additional significant effects not discussed in the FEIR, an increase in the severity of significant effects, mitigation measures/alternatives are feasible that were previously found infeasible, and/or mitigation measures/alternatives are available that Phillips 66 declines to adopt.

The air quality impacts identified in the FEIR relevant to BAAQMD review all related to emissions from equipment supporting S434, which does not directly emit air pollutants itself. The increase in throughput at Source 307 and Source 434 will increase hydrogen usage at these sources, require increased steam production at the steam power plant (estimated increase of 10 MMBtu/hour), require additional fuel usage at Source 45 Heavy Gas Oil Feed Heater (estimated increase of 5 MMBtu/hour), and generate additional sulfur (estimated at 10 tons/day) which will be recovered by one of three sulfur recovery units (Source 1002, Source 1003, Source 1010). The Air District staff has carefully reviewed and verified that the impacts of the operations and equipment affected by the proposed 4,000 bpd throughput increase, including those identified above, have been evaluated up to the utilization and capacity proposed in the FEIR. In addition, the utilization of three tanks (Source 126 Tank 172, Source 341 Tank 208, Source 342 Tank 209), which store resulting products after processing in Source 307 and Source 434, will increase. The increase in use of the tanks will result in the emission of a total of 130 pounds per

year of precursor organic compounds; however, these emissions do not alter the analysis or conclusions of either the FEIR or the Air District's permitting processes.

The 4,000 bpd throughput increase does not require any physical change to any source at the Refinery or any new construction of any sources, new piping, or new components.

Similarly, with the exception of the tank emissions identified above, the throughput increase does not entail any increase in utilization of, or increase in emissions from, any support equipment beyond what was previously analyzed in the FEIR and in the Air District's own substantive permitting processes, including New Source Review. As a result, the Air District would have been compelled to grant throughput limits based on a Reactor Train capacity of 27,000 bpd, instead of 23,000, had the Refinery requested them in the initial CFEP permitting process.

The Air District, as a Responsible Agency, finds based on a careful review and analysis of the County's FEIR and its own analysis and independent judgment that the CFEP as modified by the Project described in Application #27954, as documented in the FEIR, will continue to have certain impacts that are less than significant and certain impacts that are potentially significant but that have been mitigated to below the level of significance. In addition, for those mitigation measures that are identified in the Final EIR to lessen impacts associated with activities that are within the responsibility or jurisdiction of another public agency, the BAAQMD hereby finds that such measures either have been or can and should be adopted by such other agency.

In accordance with BAAQMD Rules and Regulations, the BAAQMD has reviewed and considered the FEIR prepared and certified by the County and has incorporated the FEIR's analysis into its decision-making process.

All significant impacts addressed by the FEIR are discussed below.

### ***1. Impacts Related to Construction***

The FEIR found that construction activities associated with the Clean Fuels Expansion Project might result in potentially significant impacts. The FEIR identified potentially significant construction-related impacts to four impact areas: Air Quality; Cultural Resources, specifically, archaeological and paleontological resources and human burials; Noise; and Transportation and Traffic, in particular, overlaps with other construction projects and construction-related truck traffic. However, the CFEP and all the sources relevant to the Project have already been constructed. The Project described in Application #27954 affects the use of existing sources and no new construction would result due to this application. Because the Project involves no construction, it will cause no construction-related impacts.

### ***2. Operational Emissions***

Operations of the Clean Fuels Expansion Project would increase air pollutant emissions and the associated incremental health risks to the public. The FEIR identified the emission of air pollutants from operational activities associated with the CFEP as a potentially significant impact and noted that the total net CFEP emissions of NO<sub>x</sub>, SO<sub>2</sub>, VOC, and PM<sub>10</sub> would not exceed the BAAQMD emissions significance criteria with implementation of mitigation measures. As

specified in the FEIR, mitigation measures have been required by the County to reduce these potentially significant impacts to a less than significant level and incremental health risks from the projects are less than the significance thresholds. Specifically, the FEIR required that the Refinery would (1) route vents in the Dissolved Air Flotation (DAF) at the Refinery wastewater treatment plant to a Thermal Oxidizer and seal the DAF outlet channel and downstream sumps with a solid cover with gaskets; (2) reduce the NO<sub>x</sub> concentration in its Steam Power Plant exhaust by 1 ppm from its current operating baseline; (3) achieve a specified decrease in SO<sub>2</sub> and PM<sub>10</sub> emissions at its Carbon Plant; and (4) use net reductions in ROG emissions associated with the mitigated CFEP to offset NO<sub>x</sub> from the CFEP.

The proposed 4,000 bpd throughput increase may result in the increase in utilization of other equipment at the Refinery, but in all cases, the operation of the equipment will remain within limits approved following completion of prior CEQA review, with no increase in emissions over levels analyzed, mitigated, and determined to be less-than-significant in the FEIR. Similarly, the emissions associated with the increased tank throughput are 130 pounds per year of precursor organic compound emissions, which will be fully offset to assure no net increase in emissions. Nevertheless, even if the 130 pounds per year was not offset, it is very small relative to the BAAQMD CEQA Guidelines threshold for organic compounds emissions, which is 10 tons (or 20,000 pounds) per year. Therefore, the increased tank throughput is less than significant.

The Air District staff reviewed and confirmed this permit application's equipment capacity utilizations compared to capacity utilizations or emission rates analyzed and approved under the FEIR.

- For Heavy Gas Oil Feed Heater, B-801 A/B (S-45), the 85 MMBTU/hour firing rate was evaluated in the 2006 CFEP DEIR on pages 3-22 and 3-23. The emissions estimates shown in the DEIR and FEIR assume the Heater is fired at its maximum 85 MMBTU/hour firing rate.
- The CFEP FEIR evaluated emissions and other impacts from operation of the Air Liquide H<sub>2</sub> Plant (S-1, S-2, and S-3) under the assumption that the Plant operated at its full production capacity of 120 MMSCF/day hydrogen production. (DEIR, page 3-29.)
- The CFEP FEIR likewise assumed for purposes of its analysis that the Onsite H<sub>2</sub> Plant, H<sub>2</sub> Manufacturing Unit (U110H<sub>2</sub>), would operate at its full 28.5 MMBTU/hour hydrogen production capacity. (CFEP EIR Chapter 5, Table 5-1 "Refinery Projects Considered in the Cumulative Analysis".)
- The CFEP FEIR evaluated emission rates of oxides of nitrogen from operation of the Steam Power Plant (S-352 through S-357) in Section 3.10, which rates correspond to the limits established as part of the District's evaluation of the CFEP in Condition 12122.9b of the Refinery's Permit to Operate, and which rates the proposed 4,000 bpd throughput increase would not cause the SPP to exceed.
- The FEIR evaluated the effects of adding the New Sulfur Plant (S-1010, U235) with a capacity of 200 long tons/day to the existing Sulfur Recovery Plants (S-1002, S-1003,

and S-1010) and of operating at the SRUs' combined capacity of 471 long tons/day. (DEIR, starting on page 3-25.)

- For the Marine Terminal (S-425 and S-426), the FEIR concluded the CFEP would result in a net decrease of 121 barge and vessel trips because the CFEP entailed the construction of the High-Pressure Reactor Train, which enabled the Refinery to process Heavy Gas Oil, rather than to export it. If the Refinery imported the entire 4,000 bpd throughput increase of Heavy Gas Oil across the Marine Terminal, it would take nine vessel trips per year to do so, with the result that the net decrease in trips contemplated by the FEIR would change to 112 fewer trips than before the CFEP.

Applying CEQA and the Guidelines, the changes in utilization within the levels previously evaluated does not require the prior CEQA documents to be revised. The proposed 4,000 bpd throughput increase will not cause the Refinery support equipment to exceed any of the emission rates or utilization rates that the FEIR evaluated, mitigated, and found less-than-significant, with the exception of the increased use of the three storage tanks identified above which would result in a less-than-significant increase of organic compound emissions. Thus, the impacts of operating that equipment has already been fully reviewed and appropriate mitigation considered, and the Project described in Application #27954 does not change the conclusions of the FEIR. Neither does it trigger recirculation of the FEIR nor a preparation of a subsequent/supplemental EIR. The impacts evaluated in the FEIR should not be reviewed and mitigated a second time as part of review of the request for increased throughput at the uncracker complex and the three storage tanks.

### ***3. Greenhouse Gas Emissions from Operations***

The FEIR concluded that greenhouse gas emissions from the CFEP would total 1,232,585 tons per year of CO<sub>2</sub>. The FEIR also generally discussed climate change; Assembly Bill 32 – California Global Warming Solutions Act of 2006; and the fact the Refinery had joined the California Climate Action Registry. However, the FEIR noted the lack of significance thresholds or established methodology for assessing the impact of greenhouse gas emissions on climate change and global warming, and concluded that it was not possible to draw conclusions about the significance of the CFEP impacts on global warming in the absence of such thresholds and methodology.

While the proposed 4,000 bpd throughput increase might result in an increase in the emission of CO<sub>2</sub> above the levels emitted under the current throughput limits, primarily from increased utilization of the Heavy Gas Oil Feed Heater, B-801 A/B (S-45) and the Air Liquide H<sub>2</sub> Plant, as discussed above, the utilization of those and other support units will remain within the levels identified, analyzed, and mitigated in the FEIR. Likewise, GHG emissions from the support units will not increase above the level identified in the FEIR as a result of the proposed throughput increase.

Moreover, the fact the FEIR declined to make a significance determination regarding the impact of greenhouse gas emissions from the CFEP does not necessitate the Air District to do so with

regard to the proposed 4,000 bpd throughput increase. California Public Resources Code section 21166 provides:

When an environmental impact report has been prepared for a project . . . , no subsequent or supplemental environmental impact report shall be required . . . unless . . . one or more of the following events occurs:

- (a) Substantial changes are proposed in the project which will require major revisions of the environmental impact report.
- (b) Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report.
- (c) New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available.

The proposed throughput increase would not result in the utilization of any equipment, or the emission of any air pollutant, including any greenhouse gas, above the levels identified in the FEIR. Accordingly, neither the throughput increase nor its effects would have changed the analysis or conclusion of the FEIR.

Similarly, there is no new information within the meaning of Section 21166, subdivision (c), to allow the preparation of a subsequent or supplemental EIR. Information concerning the potential environmental impact of greenhouse gas emissions was known at the time the FEIR was certified, and such information accordingly does not constitute new information upon which to revisit the FEIR's treatment of climate change and project greenhouse gas emissions now. (See, *Citizens Against Airport Pollution v. City of San Jose* (2014) 227 Cal. App. 4th 788, and *Citizens for Responsible Equitable Environmental Development v. City of San Diego* (2011) 196 Cal. App. 4th 515.) Moreover, the issuance of guidance since the certification of the FEIR, such as the Air District's significance thresholds for GHG emissions, does not constitute new information requiring the preparation of a supplemental environmental report under Public Resources Code section 21166. (*Concerned Dublin Citizens v. City of Dublin* (2013) 214 Cal. App. 4th 1301, 1317-1320. See also, *Fort Mojave Indian Tribe v. Department of Health Services* (1995) 38 Cal.App.4th 1574.)

Finally, CEQA Guidelines section 15064.4, promulgated in 2010, sets out procedures for determining the significance of a project's greenhouse gas emissions. In making that determination, subdivision (b)(3) of that section allows a lead agency to consider "[t]he extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions." In 2011, California Air Resources Board promulgated the regulations establishing the Cap and Trade program (Cal. Code Regs., tit. 17, §§ 95801–96022) to reduce greenhouse gas emissions under the California Global Warming Solutions Act of 2006. Cap and Trade is a "plan for the reduction . . . of greenhouse gas emissions" within the meaning of Guidelines section 15064.4, subdivision (b)(3), and that section therefore authorizes agencies to determine a project's greenhouse gas emissions will have a less than significant effect on the environment based on the project's compliance with the Cap and Trade program. (*Association of Irrigated Residents v. Kern County*

*Bd. of Supervisors* (2017) 17 Cal. App. 5th 708, 743.) The Refinery is subject to the Cap and Trade program and its greenhouse gas emissions, including those attributable to the CFEP as modified by the 4,000 bpd throughput increase, are required to comply with Cap and Trade. It would therefore be proper to find the impacts from greenhouse gas emissions from the CFEP and the 4,000 barrel throughput increase less-than-significant.

#### ***4. Cumulative Impacts***

The FEIR concluded that the CFEP would contribute to regional air pollutant emissions, but that its contribution would not be cumulatively considerable, and would not conflict with or obstruct implementation of the applicable air quality plan. According to the Clean Fuels Expansion Project EIR, this potentially significant impact would be mitigated to a less than significant level by mitigation measures. For the reasons discussed above, the proposed 4,000 bpd throughput increase would not entail emissions materially in excess of those identified, analyzed, and mitigated in the CFEP FEIR. Accordingly, the effects of the Project described in Application #27954 would not alter the FEIR's conclusion that the contribution to regional air pollution would not be cumulatively considerable.

Changes or alterations have been required in and/or incorporated into the projects to mitigate the project's emissions impacts and have been adopted by the County and the BAAQMD. The BAAQMD finds that this impact as studied in the Final EIRS would remain not cumulatively considerable.

The Air District will issue a Notice of Determination regarding the Air District's consideration of CEQA issues concurrently with the issuance of the Authority to Construct for the Project (BAAQMD Permit Application Number 27954). The Air District will provide notice to the public regarding this Notice of Determination in accordance with the requirements of CEQA.

The documents and other materials that constitute the record of proceedings upon which this decision is based are available to the general public at the BAAQMD offices, 375 Beale Street, Suite 600, San Francisco, CA 94105.

Signed by Damian Breen  
Damian Breen  
Deputy Air Pollution Control Officer  
Bay Area Air Quality Management District

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