Appendix C.1

Areas of Controversy—Potential Air Quality Impacts From Increased Use of Heavy Canadian Crudes

ESA

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During public review of the IS/MND, several commenters expressed concern that the Project could result in the increased use of heavy sour Canadian crude at the Valero Benicia Refinery, thereby causing an increase in refinery air emissions. According to the commenters, Valero's use of heavy Canadian crudes is likely to increase after the Project is complete because (1) heavy Canadian crudes are the cheapest of the North American crudes that would become available by rail, and (2) the Valero Improvement Project (VIP) significantly increased the Valero Benicia Refinery's ability to process heavy sour crudes. Since heavy sour crudes require more processing than crudes that are relatively lighter and/or sweeter, the commenters conclude, refinery emissions could increase as a result of the Project.

The City has considered this issue carefully, and reached the following conclusions:

(1) There is no reason to believe that, if the Project is approved, Valero would be more likely to purchase heavy Canadian crudes than any number of other North American crudes that are lighter and/or sweeter;

(2) Even if Valero were to purchase large amounts of heavy sour Canadian crudes as a result of the Project, this would not cause an increase in refinery emissions because Valero must blend crude feedstocks to a narrow range of weight and sulfur content before processing them; and

(3) Even if refinery emissions were to increase based on Valero's purchase of heavy sour Canadian crudes, any such emissions increases would properly be considered part of the baseline because the baseline includes of the full scope of operations allowed under existing permits that were issued based upon prior CEQA review.

As explained in Chapter 3, *Project Description*, Valero, like all refiners, decides what crudes to purchase based on linear programming. The analysis takes many factors into account, including the quality of each crude, the price of each crude, the unique configuration of the Refinery, the market demand for specific products, the market price of specific products, and the specifications of the products to be produced. Thus, like all other refiners, Valero does not necessarily purchase the cheapest available crude that it has the ability to process. The cost of crude is but one factor among many.

Moreover, even if Valero were to import heavy sour Canadian crudes by rail, the weight and sulfur content of the crudes actually processed at the Refinery would remain within the same narrow range. As explained in Chapter 3, the Refinery's configuration imposes certain constraints on Valero's ability to process crude oil into products. One of the most important constraints is the fact that the crude to be processed must weigh between roughly 20° and 36° API gravity, and contain between 0.4%-1.9% sulfur. Moreover, actual practice shows that the optimum range is even narrower. Over a recent three year period at the Refinery, a substantial majority of crude blends processed ranged between 24° and 29° API gravity, and had a sulfur content ranging from 0.08%-1.6 %.

It follows that the average weight and sulfur content of the crude feedstocks that Valero purchases over any given time (1) *must* also fall roughly within the narrow ranges of 20° - 36° API gravity and 0.4%-1.9% sulfur content, and (2) *likely* will fall within the even narrower ranges of 24° - 29° API gravity, and 0.08%-1.6% sulfur content. Therefore, although Valero could purchase heavy sour Canadian crudes, it can only purchase so much because the weight and sulfur content of any Canadian crudes would have to be offset by purchases of light sweet crudes. This is so because, again, the crude that is actually processed at the Refinery will remain within the same narrow range of weight and sulfur content.

Finally, even if one assumed that Valero will purchase 70,000 barrels per day of heavy sour Canadian crude, and the crude blend processed became substantially heavier and more sulfurous, the resulting increase in emissions would be within the baseline for operational air quality impacts.

Public Resources Code Section 21166 and CEQA Guidelines Section 15162 strictly limit the ability of a lead agency to require additional CEQA review of a project that has already undergone CEQA review. Thus, as the courts have recognized, when an applicant proposes to modify a previously approved project, the baseline includes the full scope of operations previously approved – regardless of whether the project is operating at maximum capacity when CEQA review commenced. (*Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 48 Cal.4th 310, 326; *Fairview Neighbors v. County of Ventura* (1999) 70 Cal.App.4th 238, 242-3;, *supra*, 70 Cal.App.4th at 241; *Temecula Band of Luiseno Mission Indians v. Rancho California Water District* (1996) 43 Cal.App.4th 425, 437-38'; *Benton v. Board of* Supervisors (1991) 226 Cal.App.3d 1467, 1477-84;)

In *Fairview Neighbors*, for example, the operator of a mine applied to renew its conditional use permit in the early 1990's. (*Fairview Neighbors v. Ventura*, *supra*, 70 Cal.App.4th at 241.) A previous conditional use permit, approved in 1976, allowed the facility to mine 1.8 million tons of aggregate, which could generate 810 truck trips per day. (*Id*. at 240-41.) In 1994 when the mine filed its application, the mine was operating at less than permitted capacity, such that the volume of truck traffic was significantly less than 810 truck trips per day. The court held that the appropriate baseline for truck traffic was the amount permitted under the 1976 conditional use permit, 810 trips per day, notwithstanding the fact that the facility was operating at less than the fully permitted capacity when the county commenced CEQA review. (*Id*. at 242.) In reaching this

conclusion, the court noted that the use permit had undergone CEQA review in the past. (*Id*. at 243.)

Here, as required by the federal and California Clean Air Acts, Valero holds permits for all of the Refinery's process equipment. Valero also holds a use permit from the City. The City and the Bay Area Air Quality Management District issued these permits based on the environmental impact report for the VIP prepared and certified by the City in 2003. The baseline includes the full scope of operations allowed under these permits.

Thus, to the extent that the Project would cause an increase in emissions based on an increase in the weight and sulfur content of crude feedstocks (as explained above, this cannot happen) – any such emissions increase would be within the baseline environmental conditions. The Project will not require any modifications to the Refinery's process units, or indeed any equipment at the Refinery except for the installation of a loading rack and related rail lines. If the Project were approved, the Refinery would continue to operate within the permit limits of the existing process units and other equipment.

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