

March 19, 2018

Scott Pruitt, Administrator U.S. Environmental Protection Agency Office of the Administrator, 1101A 1200 Pennsylvania Avenue, N.W. Washington, D.C. 20460

Alexis Strauss, Acting Regional Administrator U.S. Environmental Protection Agency Region IX 75 Hawthorne Street San Francisco, CA 94105

Re: Petition Requesting the Administrator Object to the Issuance of the Renewal Title V Major Facility Review Permit Issued to the Phillips 66 – San Francisco Refinery

Dear Administrator Pruitt and Regional Administrator Strauss:

On behalf of Communities for a Better Environment (CBE), San Francisco Baykeeper, Center for Biological Diversity, Friends of the Earth, Stand.earth, and Sierra Club ("Petitioners"), enclosed please find a petition requesting that the EPA object to the Renewal Title V Major Facility Review Permit issued to the Phillips 66 San Francisco Refinery by the Bay Area Air Quality Management District, which increases the source capacity limits for two hydrocracking units.

Petitioners file this petition because the permit is in violation of the Clean Air Act. The initial administrative deadline for EPA to comment or object ended on January 17, 2018; EPA did not comment. This petition is timely filed within 60 days of the close of EPA's comment period.

> Northern California Office 120 Broadway, Suite 2 Richmond CA 94804 510.302.0430

Southern California Office: 6325 Pacific Blvd, Suite 300 Huntington Park, CA 90255 323.826.9771 Petitioners ask that EPA grant this petition within the 60 days allowed for review. Petitioners believe that the issues presented require the Administrator to object and that the impact of this approval on the community of Rodeo and other communities plagued with pollution throughout the region requires immediate action.

Respectfully Submitted,

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CC via US Mail:

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BEFORE THE ADMINISTRATOR UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

In the Matter of the

RENEWAL TITLE V MAJOR FACILITY REVIEW PERMIT Petition to Object Pursuant to CAA § 505(b)(2)

Issued to Phillips 66 – San Francisco Refinery Facility ID #A0016

Issued by the Bay Area Air Quality Management District

PETITION REQUESTING THE ADMINISTRATOR OBJECT TO THE ISSUANCE OF THE RENEWAL TITLE V MAJOR FACILITY REVIEW PERMIT ISSUED TO THE PHILLIPS 66 – SAN FRANCISCO REFINERY

Pursuant to Clean Air Act § 505(b)(2) and 40 C.F.R. § 70.8(d), Communities for a Better Environment, Center for Biological Diversity, Friends of the Earth, San Francisco Baykeeper, Sierra Club, and Stand.earth ("Petitioners") hereby petition the Administrator of the United States Environmental Protection Agency ("EPA") to object to the issuance of the renewal Title V Major Facility Review Permit ("Renewal Title V Permit") to Phillips 66 – San Francisco Refinery ("Phillips 66 Refinery"), in Rodeo, California, Facility #A0016. The Renewal Title V Permit was issued by the Bay Area Air Quality Management District ("BAAQMD" or "District") on January 25, 2018.

The Administrator must object to the issuance of the Renewal Title V Permit because it violates the federal Clean Air Act ("CAA") by approving an increase in source capacity limits for Hydrocracking Units 240 and 246 without legal or factual basis. The Administrator must also object to the Renewal Title V Permit because the District did not provide adequate notice regarding the approved increases and therefore denied the public the opportunity to meaningfully participate in the permit review process and object to the approval during the public comment period. The Administrator should modify, revoke, or terminate the Renewal Title V Permit so

that it does not include the increased source capacity limits. To the extent Phillips 66 intends to pursue the increase in source capacity limits, the Administrator should require notice and public comment, and responses to comments, prior to reissuance.

INTRODUCTION

The Clean Air Act Title V permitting program offers an opportunity for concerned community members to learn what air quality requirements apply to a facility, and whether the facility is complying with those requirements. Title V meets its objective of public accountability by consolidating all information on a source of pollution into a single permitting document available to the public. The permit must contain several components to comply with the CAA, such as the operational requirements and limitations on a source, as well as monitoring, record keeping, and reporting requirements that assure compliance and accountability. Title V further achieves these objectives by allowing any member of the public to petition the EPA Administrator to object to the issuance of a Title V permit that does not comply with CAA standards.

The January 25, 2018 Renewal Title V Permit issued to the Phillips 66 Refinery violates the CAA because it approved increases to capacity limits for two of the facility's hydrocracking units without any factual or legal support, and without public notice. The District's unsubstantiated approval has prevented Petitioners, the EPA, and the public, from reviewing critical information on emission sources that process highly hazardous materials detrimental to members of the community and the environment.

A. Existing Capacity Limits for Hydrocracking Unit 240 and Unit 246

Emission sources at the Phillips 66 Refinery include, among others, two hydrocracking units that are identified in Table II-A of its Renewal Title V Permit as the U240 Unicracking Unit ("U240 Hydrocracking Unit") and the U246 High Pressure Reactor Train ("U246 Hydrocracking Unit").¹ The Renewal Title V Permit, as shown in Table II-A, increased the U240 Hydrocracking Unit maximum allowable capacity limit to 65,000 barrels per day, and increased

¹ **Exhibit A**, *Final Major Facility Review Permit issued to Phillips* 66 – *San Francisco Refinery, Facility* #A0016 ("2018 Title V Permit"), Table II-A (Jan 25, 2018) at 11, 13.

the U246 Hydrocracking Unit maximum allowable capacity limit from a *daily maximum* to a *twelve-month average* of 23,000 barrels per day.²

Prior to these revised limits, the facility's previous Title V permit limited the U240 hydrocracking unit to 42,000 barrels per day, and limited the U246 hydrocracking unit to 23,000 barrels per day.³ In fact, the U240 and U246 hydrocracking units combined were limited to a total of 65,000 barrels per day, consistent with Permit Condition 22965.⁴ As such, the U240 and U246 hydrocracking units combined has effectively been approved to now process up to 88,000 barrels per day on average, exceeding the 65,000 barrels per day limit in Condition 22965.⁵

While the District undeniably approved the maximum capacity limits for the refinery's hydrocracking units, the District simultaneously expressed that it would not process the permit application related to limit increases for U240 and U246 in this Renewal Title V Permit process.⁶ The only discussion related to changes in the permitted capacities for U240 and U246 stated that a request for a much smaller increase would not be processed in the Renewal Title V Permit and indicated consistency with Condition 22965.⁷ However, no discussion of the apparent conflict between the increased capacity limits at the U240 and U246 hydrocracking units and Condition 22965, or estimate of the emissions associated with those increased capacity limits, was included in the materials provided during the public review and comment period.

B. <u>Hydrocracking Can Drive Significant Environmental Impacts</u>

Hydrocracking is essentially aggressive hydrogen-addition cracking. A high-hazard process that operates at high temperatures and very high pressures, hydrocracking converts gas oil into lighter oils for gasoline, diesel, and jet fuel production in hydrotreating, naphtha reforming, and other downstream processes. Gas oil is one of the heaviest, most contaminated,

² Id.; see also redlined changes in **Exhibit B**, Draft Major Facility Review Permit issued to Phillips 66 – San Francisco Refinery, Facility #A0016 ("Draft 2018 Title V Permit"), Table II-A at 11, 13.

³ **Exhibit C**, *Final Major Facility Review Permit issued to Phillips 66 – San Francisco Refinery, Facility* #A0016, Table II-A – Permitted Sources ("2014 Title V Permit") (Aug 1, 2014) at 11, 13.

⁴ *Id.* at 544; *see also* **Exhibit D**, *Permit Evaluation and Statement of Basis* for Draft 2018 Title V Permit ("Statement of Basis") (November 2017) at 85 (noting the 65,000 barrels per day limit on Source S-307 for U240, which includes the amount of gas oil that can be processed at both U240 and U246).

⁵ **Exhibit A**, 2018 Title V Permit at 503; *see also* **Exhibit D**, Statement of Basis at 85.

⁶ **Exhibit D**, Statement of Basis at 5-6.

⁷ *Id.* at 6 ("Application 27954 is a request to increase the throughput through S307 U240 Unicracking Unit and S434 Heavy Gas Oil Hydrocracker by 4,000 barrels per day above the existing 65,000 barrels per day permit limit.); *See also Id.* at 85 (regarding Condition 22965).

and most hydrogen-deficient oil streams produced by crude distillation and coking. The fuel combustion and chemical reaction energy to heat, pressurize, power, and produce hydrogen for the additional gas oil hydrocracking, as approved by the Renewal Title V Permit, would increase routine and episodic air pollutant emissions substantially.

Hydrocracking is also the only way this facility converts the gas oil it produces in its crude distillation and coking units into lighter engine fuel feedstocks. The facility has no capacity to convert gas oil by fluid catalytic cracking.⁸ Each barrel of its gas oil hydrocracking capacity represents roughly two to three barrels of crude capacity.⁹ This is because the gas oil volume produced by crude distillation and coking is only about one-third to one-half of the crude volume refined, at typical distillation and coking yields reported for crude oils matching the facility's target crude slate. Implementing the approved gas oil conversion increase thus has the potential to de-bottleneck and increase processing rates at many sources across the facility, further increasing both routine and episodic air pollution hazards.

Notably, Phillips 66 has concurrently proposed to increase its permitted oil import capacity over its wharf, further demonstrating the potential that the subject action is part of a plant-wide expansion.¹⁰ The marine terminal part of its expansion plan would increase tanker emissions and oil spill hazards along the Pacific coast and in the San Francisco Bay. Moreover, environmental review of Phillips 66's recently rejected rail spur proposal at the Arroyo Grande facility of the San Francisco Refinery showed that Phillips 66's target oil source is diluted bitumen from Canadian tar sands.¹¹ Bitumen sinks in water when spilled and requires more fuel combustion energy to refine. Enabling more of it to be imported and refined at the San Francisco Refinery in Rodeo would further increase oil spill and refinery emission hazards in the region.

The higher hydrocracking limits approved for the Phillips 66 Refinery will significantly increase risks to human health and the environment. The State's Office of Environmental Health

⁸ **Exhibit A**, 2018 Title V Permit at 8-14 (Table II-A – Permitted Sources); *See also* **Exhibit D**, Statement of Basis at 20 ("Phillips 66 does not have any catalytic crackers.").

⁹ A barrel (of oil) is a volume of 42 U.S. gallons.

¹⁰ **Exhibit D**, Statement of Basis at 5, 6 (regarding requests to increase the marine terminal permit limit for crude oil from 51,182 barrels per day to 101,182 barrels per day).

¹¹ Phillips 66 Company Rail Spur Extension And Crude Unloading Project Final Environmental Impact Report, SCH #2013071028, Section 2.0 – Project Description, at 2-34,

⁽https://www.slocounty.ca.gov/getattachment/2e629318-e3e4-4f28-97df-f81343774c22/Phillips-Rail-Spur-FEIR.aspx).

Hazard Assessment has already identified Rodeo and its surrounding communities as bearing a concentrated and disproportionate burden of health hazards resulting from various pollution sources, including the Phillips 66 Refinery.¹² These communities are owed the opportunity to review critical information on emission resources that process highly hazardous materials that can impact their health. Prior to the permitted increase challenged here, the EPA and the public should at a minimum have had the opportunity to review, analyze, and comment on these increased risks.

PETITIONERS

Petitioner Communities for a Better Environment ("CBE") is a non-profit environmental justice organization committed to the rights of urban low-income communities and communities of color in California who are disproportionately impacted by environmental hazards. CBE has worked in Rodeo for numerous years on environmental justice issues, and its members include residents who are affected by the Phillips 66 – San Francisco Refinery. CBE engaged around initial issuance of the Title V permit for the Phillips 66 – San Francisco Refinery (then ConocoPhillips), and is closely analyzing the refinery's latest project efforts.

Petitioner Center for Biological Diversity is a non-profit corporation with offices in San Francisco, Los Angeles, and elsewhere throughout California and the United States. The Center is actively involved in environmental protection issues throughout California and North America and has over 63,000 members and more than 1.3 million online activists, including many throughout California and in the Bay Area. The Center's mission includes protecting and restoring habitat and populations of imperiled species, reducing greenhouse gas pollution to preserve a safe climate, and protecting air quality, water quality, and public health. The Center's members and staff include individuals who regularly live, work, recreate and visit the areas surrounding the Phillips 66 refinery.

Petitioner Friends of the Earth, founded by David Brower in 1969, fights to protect our environment and create a healthy and just world. We are more than 1.5 million members and activists across all 50 states working to make this vision a reality. We are part of the Friends of

¹² According to the California's multi-faceted burdens tool, CalEnviroScreen 3.0, the community suffers from a greater combination of pollution and other environmental stressors than 80% of the state. It is in the 98th percentile statewide for asthma, and 92nd percentile statewide for low birth weight. Not surprisingly, it is also majority people of color. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, 2017, CalEnviroScreen 3.0, (https://oehha.ca.gov/calenviroscreen/maps-data).

the Earth International Federation, a network in 74 countries working for social and environmental justice. Together we speak truth to power and expose those who endanger the health of people and the planet for corporate profit. To accomplish our mission, Friends of the Earth is working at the nexus of environmental protection, economic justice and social justice to fundamentally transform the way our country and the world value people and the environment. Our current campaigns focus on promoting clean energy and solutions to climate change, ensuring the food we eat and products we use are sustainable and safe for our health and the environment, and protecting marine ecosystems and the people who live and work near them.

Petitioner San Francisco Baykeeper ("Baykeeper") has worked for more than 25 years to stop pollution in San Francisco Bay and has more than five thousand members and supporters who use and enjoy the environmental, recreational, and aesthetic qualities of San Francisco Bay and its surrounding tributaries and ecosystems. San Francisco Bay is a treasure of the Bay Area, and the heart of our landscape, communities, and economy. Oil spills pose one of the primary threats to a healthy Bay, and environmental impacts from increased marine terminal activity directly threaten Baykeeper's core mission of a Bay that is free from pollution, safe for recreation, surrounded by healthy beaches, and ready for a future of sea level rise and scarce resources. Baykeeper is one of 200 Waterkeeper organizations working for clean water around the world. Baykeeper is a founding member of the international Waterkeeper Alliance and was the first Waterkeeper on the West Coast. Baykeeper also works with 12 Waterkeepers across California and the California Coastkeeper Alliance.

Petitioner Stand.earth (formerly ForestEthics) was founded nearly twenty years ago by a group of dedicated people who were working day in and day out to solve a big problem: What do you do when the health and foundation of communities and their environment are being undermined? Stand.earth's campaigns challenge destructive corporate and governmental practices, demand accountability, and create solutions that protect the forests and the stable climate required to keep our planet – and us – thriving. An unstable climate isn't good for anyone. We're already seeing the ugly effects of record-breaking temperatures, increased storm damage, displaced populations, and declining ecosystems as the result of climate change. The time is now to take swift action to stave off even greater disruption. Solutions to climate change are realistic, popular, and have enormous benefits. But first, we must overcome resistance from

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corporate and governmental forces that are motivated to continue to use outdated polluting supplies of fossil energy.

Petitioner Sierra Club is a national nonprofit organization with 67 chapters and over 635,000 members dedicated to exploring, enjoying, and protecting the wild places of the earth; to practicing and promoting the responsible use of the earth's ecosystems and resources; to educating and enlisting humanity to protect and restore the quality of the natural and human environment; and to using all lawful means to carry out these objectives. The Sierra Club has over 147,000 members in the state of California, including approximately 38,151 members in the San Francisco Bay Chapter and 2,157 members in the chapter's West Contra Costa Group which includes Rodeo. The Sierra Club's concerns encompass the causes and impacts of climate change. The Sierra Club is particularly concerned about our nation's dependence on dirty fossil fuels, such as crude oil, the emissions from which are exacerbating climate change, and its impacts on communities throughout the nation, and in particular on California communities and low income disadvantaged communities disproportionately burdened by toxic industrial pollution from the extraction, movement, refining, and consumption of crude oil. The Sierra Club seeks out opportunities to stem our nation's dependence on harmful fossil fuels, including advocating against projects that will exacerbate the harms associated with the proliferation of fossil fuels, in particular risky infrastructure projects for transporting hazardous crude.

PROCEDURAL BACKGROUND

On February 26, 2016, Phillips 66 submitted an application for a second renewal of the Refinery's Title V operating permit to the District.¹³ On November 16, 2017, the District completed its evaluation of the renewal application and declared its preliminary decision to issue the Renewal Title V Permit.¹⁴ Although Petitioners are identified as interested parties regarding the Phillips 66 San Francisco Refinery, none of these organizations has a record of receiving actual notice on the proposed Renewal Title V Permit, as required by 40 C.F.R. 70.7(h)(1).

¹³ The Refinery obtained its initial Title V operating permit on December 1, 2003. On February 26, 2016, Phillips 66 submitted Application No. 27798 requesting a second renewal of that initial Title V Permit. *See* Exhibit **D**, Statement of Basis at 3.

¹⁴ BAAQMD Letter to Elizabeth Adams, Acting Director for the Air Division, EPA, from Damian Breen, November 16, 2017. (http://www.baaqmd.gov/~/media/files/engineering/title-v-permits/a0016/a0016_11_2017 _renewal_proposed _epa_ltr_01-pdf.pdf?la=en).

Pursuant to 40 C.F.R. 70.7(h)(4), the 30-day period for public comments on the proposed Renewal Title V Permit ended on December 31, 2017, and the District received no public comments.¹⁵ The EPA's 45-day review period concluded on January 17, 2018.¹⁶ The EPA did not object to the proposed Renewal Title V Permit or otherwise submit substantive comments to the District.¹⁷ On January 25, 2018, the District issued a final Renewal Title V Permit to Phillips 66, which included increases to the permitted capacity for U240 and U246.¹⁸

Upon receipt of a proposed permit, the EPA has 45 days to object to final issuance if the EPA determines that the proposed permit is not in compliance with the applicable requirements under the CAA.¹⁹ If the EPA does not object to a permit on its own initiative, any person may petition the Administrator, within 60 days of the expiration of the EPA's 45-day review period, to object to the permit.²⁰ Since the EPA did not object to the proposed Renewal Title V Permit, Petitioners now request that the Administrator object to the permit.

This Petition was timely filed within the 60-day statutory period, as required by CAA § 505(b)(2), following the conclusion of the EPA's review period, which ended on January 17, 2018.²¹

GROUNDS FOR OBJECTION

The CAA requires the Administrator to issue an objection if a petitioner demonstrates that a Title V permit is not in compliance with the requirements of the Act.²² Moreover, the District may only issue a final Title V permit if the terms and conditions of the permit "provide for compliance with all applicable requirements and the requirements of [Part 70]."²³

Petitioners request the Administrator object to the Renewal Title V Permit because it does not comply with the Clean Air Act and 40 C.F.R. Part 70. In this petition, Petitioners demonstrate that the District improperly and unlawfully issued a Renewal Title V Permit because

¹⁵ BAAQMD Letter to Matt Lakin, Acting Director for the Air Division, EPA, from Damian Breen, dated January 25, 2018. (http://www.baaqmd.gov/~/media/files/engineering/title-v-permits/a0016/a0016_1_25_2018_ renewal_final_epa_ltr_01-pdf.pdf?la=en). For reasons discussed in this Petition, Petitioners did not provide public comments on the proposed Renewal Title V Permit.

I6 Id.

¹⁷ *Id*.

¹⁸ *Id.* The final Renewal Title V Permit reviewed and approved Applications 27798, 21850, 22672, 26487, 27532, 27560, 28688.

¹⁹ 42 U.S.C.A. § 7661d(b)(1); see also 40 C.F.R. § 70.8(c).

²⁰ 42 U.S.C.A. § 7661d(b)(2).

²¹ This Petition was filed on March 19, 2018.

²² 42 U.S.C.A. § 7661d(b)(1).

²³ 40 C.F.R.§ 70.7(a)(l)(iv).

it included an approval of permitted capacity increases for U240 and U246 without providing adequate notice to the public and without a legal or factual basis for the approval.

A. Impracticability of Raising Objections During the Comment Period

As a threshold matter, the CAA provides that a Title V petition to the Administrator:

"[S]hall be based only on objections . . . that were raised . . . during the public comment period . . . (<u>unless the petitioner demonstrates in the petition</u> to the Administrator that it was impracticable to raise such objections within such period or unless the grounds for such objection arose after such period.)"²⁴

Petitioners acknowledge that they did not raise objections during the public comment period. It was impracticable, however, for Petitioners or any member of the public or reviewing agency, to raise objections during the public comment period because the District failed to provide substantive notice of its proposed Renewal Title V Permit and because the grounds for objecting to the substantive change in the Renewal Title V Permit arose after such period.

In the draft Renewal Title V Permit that was provided for public comment, the District specifically wrote that it would not be reviewing an application requesting increases in capacity limits for the facility's hydrocracking units. Petitioners are extremely concerned about these increases in capacity limits for the hydrocracking units. Because the draft permit stated that no increases in the processing capacity of the hydrocracking units would be considered in the Renewal Title V Permit, Petitioners had no reason to make public comments to the draft.

Petitioners first received notice that the capacity limit increases were being considered when they reviewed the final Renewal Title V Permit. The District issued the final Renewal Title V Permit on January 25, 2018, after conclusion of EPA's review and after the public comment period. Because the comment period concluded before it was possible for Petitioners to learn of the increases in capacity limits, it was impracticable, indeed impossible, to raise concerns during the comment period. Therefore, the CAA requirement limiting Petitioners to objections raised during the comment period does not bar this petition.

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⁴² U.S.C.A. § 7661d(b)(2) (emphasis added).

B. Failure to Provide Substantive Notice

The Renewal Title V Permit was improperly issued because the District did not provide substantive notice to the public concerning the increase in capacity limits for the U240 and U246 hydrocracking units, as required by 40 C.F.R. § 70.7(h)(2). By giving notice that it **did not** intend to approve changes to the Refinery's hydrocracking units, the District affirmatively thwarted Clean Air Act requirements to provide notice of the activities involved in the permit action and emissions change. As a result, the District also failed to provide the public 30 days to comment on the proposed Renewal Title V permit.²⁵

Under the Clean Air Act, an agency must follow specific procedures to ensure the public notice and comment requirements are met prior to issuance of a Title V permit. These procedures include providing the public with specific information on which to base its evaluation and comments. Notice must include "the activity or activities involved in the permit action…" as well as "the emissions change involved in any permit modification…"²⁶ The notice must also identify where the public can obtain all "materials available to the permitting authority … that are relevant to the permit decision…"²⁷ The agency must make such materials available for public comment for at least 30 days.²⁸ The District has adopted a parallel regulation, which requires that the notice "include information about the operation to be permitted," as well as "any proposed change in emissions…"²⁹

Public notice and comment serve vital functions under the Clean Air Act, not only providing the public the opportunity to assess changes to facilities under federal law, and voice its concerns, but also ensuring the agencies have the benefit of the public's insights.³⁰ Where

²⁵ In addition to not receiving substantive notice, Petitioners also did not receive the BAAQMD's "Notice Inviting Written Public Comment," dated November 16, 2017. As noted in the Procedural Background, Petitioners are interested parties regarding the Phillips 66 San Francisco Refinery, but have no record of receiving actual notice of the District's proposal to renew Phillips 66 Refinery's Title V Permit.

²⁶ 40 C.F.R. § 70.7(h)(2).

²⁷ *Id.*

²⁸ 40 C.F.R. § 70.7(h)(4).

²⁹ BAAQMD Regulation 2-6-412.2, at 16 (http://www.baaqmd.gov/~/media/files/planning-and-research/rules-and-regs/reg-02/rg0206.pdf?la=en).

³⁰ See, e.g. In Re: Russell City Energy Ctr., 14 E.A.D. 159, 171 (E.P.A. July 29, 2008) ("[T]he essence of the alleged "harm" from the procedural violation is not simply its potential impact on the final permit decision, but rather the deprivation of the public's opportunity to have its views considered by the permitting agency."); In Re: Indeck-Elwood, LLC, 13 E.A.D. 126, 141 (E.P.A. Sept. 27, 2006) ("Condition 9 clearly changes the substance of the PSD permit, allowing for construction of a facility that is physically different than the one permitted, and which may potentially have different emission characteristics. In our view, Condition 9 is thus appropriately seen as a

agencies fail to comply with the mandatory public participation requirements, EPA may and should grant petitions for review and finds deficient notice. As EPA has explained, a state permitting agency may only issue a Title V permit if, among other things, it "'has complied with the requirements for public participation under [40 C.F.R. § 70.7(h)].' 40 C.F.R. § 70.7(a)(1)(ii); *see also* 40 C.F.R. § 70.7(e)(4)(ii) (requiring state programs to provide that significant permit modifications meet the public participation requirements of part 70).'"³¹ EPA specifically identified the 40 C.F.R. section 70.7(h)(2) requirement that a public notice specify "'the emissions change involved in any permit modification.'"³² For example, where the New Hampshire Department of Environmental Services ("NH DES") gave notice of a permit modification to allow burning construction debris in a wood burning plant, but failed to provide information on emissions increases, the notice was deficient.³³ Whether or not the emissions increase information.³⁴

Further, EPA has granted petitions for review when relevant supporting materials for a permit were not provided to the public. EPA noted that Title V regulations "require that public notice shall include information to enable the public to obtain copies of 'the permit draft, the application, all relevant supporting materials ... and all other materials available to the permitting authority that are relevant to the permit decision.' 40 C.F.R. § 70.7(h)(2)."³⁵ Thus, where the Wisconsin Department of Natural Resources ("WDNR") referred to and relied on four inspection plans of a coal-fired power plant in granting a Title V permit, EPA found that these plans should have been available for review during the Title V public comment process.³⁶ Since the plans were absent from both the permit application and the final permit, EPA granted the

³⁶ *Id.* at 12-14.

significant addition to the permit that, at a minimum, raises substantial new questions about the permit, and therefore IEPA should have reopened or extended the comment period to subject this condition to public comment. ... Accordingly, we conclude that the permit is defective with respect to permit Condition 9. The permit is therefore remanded on this issue. On remand, IEPA must either remove Condition 9 from the permit, or reopen the record and provide the public with an opportunity to comment on this issue and provide a response to any such comments received.")

³¹ *Bioenergy LLC*, Petition No. I-2003-01, (Order Partially Granting and Partially Denying Petition For Objection To Permit, October 1, 2006), at 9.

 $[\]begin{array}{ccc} 32 & Id. \\ 33 & Id. \end{array}$

³³ *Id.* at 9-10.

³⁴ *Id.*

³⁵ *Alliant Energy WPL Edgewater Generating Station*, Petition Number V-2009-02, (Order Granting In Part And Denying In Part Petition For Objection To Permit, August 17, 2010), at 12.

petition and required WDNR to terminate, modify, or revoke and reissue the title V renewal permit.³⁷

In November 2017, the District sent notice to the EPA of its draft Renewal Title V Permit and accompanying initial Permit Evaluation and Statement of Basis ("Statement of Basis").³⁸ The Statement of Basis includes a small table indicating specific pending applications that would not be considered in the Renewal Title V Permit. Application #27954, requesting to increase capacity limits for the U240 and U246 hydrocracking units, is one of the applications the District stated would "not be processed with the Title V permit renewal because they have not been issued or commenced construction."³⁹ Yet the final Renewal Title V Permit reflects changes to the capacity limits for those same hydrocracking units – U240 and U246.⁴⁰

The District also did not provide, nor include with its Permit Evaluation and Statement of Basis, any factual or legal background or analysis to support its decision to increase the capacity limits for U240 and U246. While the District's Statement of Basis purports to have attached engineering evaluations for all the NSR applications in the Renewal Title V Permit, it did not include any engineering evaluations addressing the increased limits for the U240 and U246 hvdrocracking units.⁴¹ Had there been evaluations or other supporting materials, Petitioners might have been able to discern at the very least that there was a discrepancy between the District's explicit intention not to review the application requesting to increase limits for the hydrocracking units and supporting materials that would imply quite the opposite. Without any supportive documents, however, there was no reason for Petitioners to provide public comment for an application that would be reviewed in a future permitting process.

The District's issuance of the Renewal Title V Permit without adequate notice deprived the public, and Petitioners, of notice and an opportunity to comment. Because of the lack of substantive notice, Petitioners were not able to raise objections specifically on the capacity limit

40 See, supra, Introduction, A. Existing Capacity Limits for Hydrocracking Unit 240 and Unit 246.

³⁷ Id.

³⁸ Letter to Elizabeth Adams, Acting Director for the Air Division, EPA, from Damian Breen, November 16, 2017. (http://www.baaqmd.gov/~/media/files/engineering/title-v-permits/a0016/a0016_11_2017_renewal_proposed _epa_ltr_01-pdf.pdf?la=en).

Exhibit D, Statement of Basis at 5.

⁴¹ Exhibit D, Statement of Basis at 5; See also, id. at 61 (Appendix B – BAAQMD Engineering Evaluation Reports Table).

increases for the U240 and U246 hydrocracking units. The Administrator must object to the final Renewal Title V permit based on the District's failure to comply with notice requirements.

C. Deficient Statement of Basis

The EPA must also object to the Renewal Title V Permit because the permit approves the increase in capacity limits for U240 and U246 without analysis or a legal or factual basis, as required by the CAA.⁴² Pursuant to CAA regulations, the permitting authority "shall provide a statement that sets forth the legal and factual basis for the draft permit conditions (including references to the applicable statutory or regulatory provisions)."⁴³ Indeed, a statement of basis "is more than just a short form of the permit" and "should highlight elements that EPA and the public would find important to review."⁴⁴ Further, the statement of basis should "include a discussion of the decision-making that went into the development of the Title V permit and provide the permitting authority, the public, and EPA a record of the applicability and technical issues surrounding the issuance of the permit."⁴⁵ The District has also adopted a parallel regulation, which requires preparation of a statement that sets forth the legal and factual basis for the draft permit conditions when issuing a majority facility review permit.⁴⁶

The capacity limits for U240 and U246 reflected in the final Renewal Title V Permit are higher than the previous limits approved in the 2014 Title V Permit.⁴⁷ However, the Statement of Basis provides no information or analysis to support the significant change in the limits permitted by the District. Rather, the Statement of Basis notes that Application #27954 ("hydrocracking units application"), regarding U240 and U246, would "not be processed with the Title V permit renewal because they have not been issued or commenced construction."⁴⁸ This is significant because it emphasizes the deficiency of the Statement of Basis, not only for its failure in providing a rationale for the permitted increases, but also by presenting misleading

⁴² 40 CFR 70.7(a)(5).

⁴³ *Id.*

⁴⁴ Los Medanos Energy Center, Permit No. B1866, (Order Denying In Part and Granting In Part Petition For Objection to Permit, May 24, 2004) at 10.

⁴⁵ EPA Memorandum regarding *Implementation Guidance on Annual Compliance Certification Reporting and Statement of Basis Requirements for Title V Operating Permits*, dated April 30, 2014, Attachment 2 at 2 (https://www.epa.gov/sites/production/files/2015-08/documents/20140430.pdf).

⁴⁶ BAAQMD Regulation 2-6-427, at 20 (http://www.baaqmd.gov/~/media/files/planning-and-research/rulesand-regs/reg-02/rg0206.pdf?la=en).

⁴⁷ See footnote 2 and 3, *supra*.

⁴⁸ **Exhibit D**, Statement of Basis at 5.

information contrary to what is shown in the final Renewal Title V Permit. Indeed, as discussed above, permits to expand hydrocracking capacity demand comprehensive and supportive analysis due to the hazardous materials it processes. No such analysis can be in the Statement of Basis.

Lastly, the District failed to include with its Statement of Basis any factual or legal supporting materials to address the increase of capacity limits for U240 and U246. There were also no estimates of the emissions associated with the increased limits. Although the Statement of Basis indicated that it had attached "engineering evaluations for all the NSR applications to be included with the Title V permit renewal," it did not include any engineering evaluations related to the increased capacity limits for the hydrocracking units.⁴⁹ The Statement of Basis should have included a discussion of the decision-making that went into allowing the increase in the capacity limits and attached materials, such as engineering evaluations, to support the decision for the increase. Instead, the incomplete permit record leaves the EPA and the public with nothing to review pertaining to the hydrocracking units.

In addition to Title V-specific requirements, agencies have a general duty to base their decisions on facts in the record. Agency action that is not based on facts in the record is arbitrary and capricious. An agency cannot determine impacts of a project without a record and evidence to support its conclusion.⁵⁰ For example, in *Richardson*, the court refused deference where the record was silent on the source of a conclusion that aquifer contamination impacts would be "minimal."⁵¹ Here, the District asserts it included, and therefore relied on, the engineering evaluations for each permit in the Renewal Title V permit.⁵² The engineering evaluations for other permits are, in fact, included, but the evaluation for the approved change in capacity limits for U240 and U246 is not. Approving the Renewal Title V permit without the engineering evaluation for the increase in capacity limits for Units 240 and 246 is arbitrary and capricious.

The Statement of Basis "should be as complete as possible, not only for the public and inspectors' benefit, but to assure that future generations of permit writers are able to understand

⁴⁹ *Id.* at 5 ("The engineering evaluations for all the NSR applications to be included with the Title V permit renewal are attached to this statement of basis."); *See also* Appendix B – BAAQMD Engineering Evaluation Reports Table, **Exhibit D**, Statement of Basis at 61. As described above, BAAQMD independently violated the notice requirement by stating engineering reports were included, and failing to include them.

⁵⁰ *N.M. ex rel. Richardson v. BLM*, 565 F.3d 683, 715 (10th Cir. 2009).

Id. See also Or. Natural Desert Ass'n, 531 F.3d 1114, 1142 (9th Cir. 2008) ("We cannot defer to a void.").
Exhibit D, Statement of Basis at 5.

what occurred in past permitting actions."⁵³ The draft Renewal Title V Permit reflecting the change in capacity limits, along with the finalized limits in the final Renewal Title V Permit, require a complete record from the Statement of Basis and relevant documentation. Without such a complete record, Petitioners are unable to understand and assess exactly how the limits were proposed in a draft permit and later approved in a final permit. The Statement of Basis accompanying this Renewal Title V Permit is noncompliant with the CAA. The Administrator must therefore object to the issuance of the Renewal Title V Permit.

CONCLUSION

The grounds for objection discussed above demonstrate that the issued Renewal Title V Permit is noncompliant with Clean Air Act requirements. The Administrator is therefore obligated to object to this Permit and should modify, revoke, or terminate the Renewal Title V Permit.

Dated: March 19, 2018

Respectfully submitted,

COMMUNITIES FOR A BETTER ENVIRONMENT, CENTER FOR BIOLOGICAL DIVERSITY, FRIENDS OF THE EARTH, SAN FRANCISCO BAYKEEPER, SIERRA CLUB, and STAND.EARTH

/s/ Camille Stough Camille Stough Shana Lazerow Communities for a Better Environment 120 Broadway, Suite 2 Richmond, CA 94530 cstough@cbecal.org slazerow@cbecal.org (510) 302-0430

(signature page continues)

⁵³ *Doe Run Company Buick Mine and Mill*, Petition No. VII-1999-001, (Order Granting In Part and Denying In Part Petition For Objection to Permit, July 31, 2002) at 25.

/s/ Hollin Kretzmann

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PETITION TO OBJECT TO RENEWAL TITLE V MAJOR FACILITY REVIEW PERMIT

Issued to Phillips 66 – San Francisco Refinery (Facility #A0016) Issued by the Bay Area Air Quality Management District

Exhibits A through D

March 19, 2018

Emphasis in attached excerpts were created by Petitioner

EXHIBIT A

EXHIBIT A

Emphasis in attached excerpts were created by Petitioner CBE, ET AL., PETITION TO OBJECT TO RENEWAL TITLE V MAJOR FACILITY REVIEW PERMIT March 19, 2018

Bay Area Air Quality Management District

375 Beale Street, Suite 600 San Francisco, CA 94105 (415) 771-6000

Final

MAJOR FACILITY REVIEW PERMIT

Issued To: Phillips 66– San Francisco Refinery Facility #A0016

> Facility Address: 1380 San Pablo Avenue Rodeo, CA 94572

> Mailing Address: 1380 San Pablo Avenue Rodeo, CA 94572

Responsible Official Mark Evans, Refinery Manager 510 245 4415 Facility Contact Brent Eastep, Senior Environmental Consultant 510 245 4672

Type of Facility: Primary SIC: Product: Petroleum refinery 2911 Refined petroleum products

BAAQMD Engineering Division Contact: M.K. Carol Lee

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Signed by Damian Breen for Jack P. Broadbent Jack P. Broadbent, Executive Officer/Air Pollution Control Officer January 25, 2018 Date

II. EQUIPMENT

Table II A - Permitted Sources

S#	Description	Make or Type	Model	Capacity
	U229, B-301 Heater	Petro-Chem	process	22 MMbtu/hr
2	(natural gas, refinery fuel gas)		heater	
	U230, B-201 Heater	Petro-Chem	process	53 MMbtu/hr
3	(natural gas, refinery fuel gas)		heater	
•	U231, B-101 Heater	Braun	process	96 MMbtu/hr
4	(natural gas, refinery fuel gas)		heater	
	U231, B-102 Heater	Braun	process	104 MMbtu/hr
5	(natural gas, refinery fucl gas)		heater	
	U231, B-103 Heater	Petro-Chem	process	64 MMbtu/hr
7	(natural gas, refinery fuel gas)		heater	
	U240, B-2 Boiler	Born	process	61 MMbtu/hr
9	(natural gas, refinery fuel gas)		heater	
	U240, B-101 Heater	Foster-Wheeler	process	223 MMbtu/hr
10	(natural gas, refinery fuel gas)		heater	
	U240, B-201 Heater	Econo-Therm	process	108 MMbtu/hr
11	(natural gas, refinery fuel gas)		heater	
	U240, B-202 Heater	Econo-Therm	process	42 MMbtu/hr
12	(natural gas, refinery fuel gas)		heater	
	U240, B-301 Heater	Born	process	194 MMbtu/hr
13	(natural gas, refinery fuel gas)		heater	
	U244, B-501 Heater	Alcorn	process	239.75 MMbtu/hr total for
15	(natural gas, refinery fuel gas)		heater	S15 through S19
	U244, B-502 Heater	Alcorn	process	239.75 MMbtu/hr total for
16	(natural gas, refinery fuel gas)		heater	S15 through S19
	U244, B-503 Heater	Alcorn	process	239.75 MMbtu/hr total for
17	(natural gas, refinery fuel gas)		heater	S15 through S19
	U244, B-504 Heater	Alcorn	process	239.75 MMbtu/hr total for
18	(natural gas, refinery fuel gas)		heater	S15 through S19
	U244, B-505 Heater	Alcorn	process	239.75 MMbtu/hr total for
19	(natural gas, refinery fuel gas)		heater	S15 through S19
	U244, B-506 Heater	Econo-Therm	process	23 MMbtu/hr
20	(natural gas, refinery fuel gas)		heater	
	U244, B-507 Heater	Econo-Therm	process	8.1 MMbtu/hr
21	(natural gas, refinery fuel gas)		heater	
	U248, B-606 Heater	Econo-Therm	process	31 MMbtu/hr
22	(natural gas, refinery fuel gas)		heater	
	U200, B-5 Heater	Foster-Wheeler	process	103 MMbtu/hr
29	(natural gas, refinery fuel gas)		heater	
	U200, B-101 Heater	Petro-Chem	process	50 MMbtu/hr
30	(natural gas, refinery fuel gas)		heater	
	U200, B-501 Heater	Petro-Chem	process	20 MMbtu/hr
31	(natural gas, refinery fuel gas)		heater	
	U200, B-102 Heater	NA	process	82.1 MMbtu/hr
36	(natural gas, refinery fuel gas)		heater	

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Table II A - Permitted Sources

S#	Description	Make or Type	Model	Capacity
	U200, B-202 Heater		process	230 MMbtu/hr
43	(natural gas, refinery fuel gas)		heater	
	U200, B-201 PCT Reboil		process	46 MMbtu/hr
	Furnace		heater	
44	(natural gas, refinery fuel gas)			
	U246 B-801 A/B Heater			85 MMbtu/hr
45	(refinery fuel gas, natural gas)			
	Diesel Engine (turbine S352	Allis-Chalmers	6138	435 hp
50	startup)			
	Diesel Engine (turbine S353	Allis-Chalmers	6138	435 hp
51	startup)			
	Diesel Engine (turbine S354	Allis-Chalmers	6138	435 hp
52	startup)			
	SPP Emergency Generator G-27	Cummins	6B-5.9	97 hp
53	(dicsel fuel)	· · · · · · · · · · · · · · · · · · ·		
	Pump Station 4 G-201A	Caterpillar	3406	370 hp
56	Emergency Engine (diesel fuel)			
	Pump Station 4 G-201B	Caterpillar	3406	370 hp
57	Emergency Engine (diesel fuel)			
	Pump Station 4 G-422A	Caterpillar	3406	370 hp
58	Emergency Engine (diesel fuel)			
- 0	Pump Station 4 G-422B	Caterpillar	3406	370 hp
59	Emergency Engine (diesel fuel)			
97	Tank 100	external floating roof	crude oil	298 thousand bbl
98	Tank 101	external floating roof	Petroleum liquids	170 thousand barrels
100	Tank 103 _	external floating roof	ship ballast	47 thousand bbl
	Storm Water Equalization Tank	external floating roof	stormwater	5.5 million gal
101	T-104			Ŭ
	Storm Water Equalization Tank	external floating roof	stormwater	5.5 million gal
102	T-105	ç		Ŭ
	Storm Water Equalization Tank	external floating roof	stormwater	10.6 million gal
106	T-130	-		, v
107	Tank 150	external floating roof	crude oil	68 thousand bbl
		external floating roof	crude oil,	4.2 million gal
		Ŭ	gas oil,	-
110	Tank 155		distillate oil	
111	Tank 156	external floating roof	crude oil	100 thousand bbl
112	Tank 157	external floating roof	crude oil	100 thousand bbl
113	Tank 158	external floating roof	crude oil	101 thousand bbl
114	Tank 159	external floating roof	crude oil	136 thousand bbl
115	Tank 160	external floating roof	naphtha	75 thousand bbl
122	Tank 167	external floating roof	naphtha	3.1 million gal
123	Tank 168	external floating roof	naphtha	75 thousand bbl

Table II A - Permitted Sources

S#	Description	Make or Type	Model	Capacity
124	Tank 169	external floating roof	naphtha	75 thousand bbl
125	Tank 170	external floating roof	naphtha	75 thousand bbl
126	Tank 172	internal floating roof tank with dome roof	naphtha, MTBE	75 thousand bbl
128	Tank 174	external floating roof	crude oil, naphtha	76 thousand bbl
129	Tank 180	external floating roof	naphtha	76 thousand bbl
133	API Waste Oil Tank T-193	external floating roof	waste oil	22 thousand bbl
134	API Waste Oil Tank T-194	external floating roof	waste oil	22 thousand bbl
135	Tank 200	Fixed roof	Petroleum liquids to 11 psia	79 thousand bbl
137	Tank 202	Fixed roof	Petroleum liquids to 11 psia	88 thousand bbl
139	Tank 204 (also oil-water separator)	Fixed roof	Sour water, distillate oil	81 thousand bbl
140	Tank 205 (also oil-water separator)	Fixed roof	Sour water, naphtha	54 thousand bbl
150	Tank 241	external floating roof	gasoline	79 thousand bbl
151	Tank 242	external floating roof	gasoline	75 thousand bbl
168	Tank 269	Fixed roof	Non- phenolic water	39 thousand bbl
173	Tank 280	Fixed roof	Gas oil	134 thousand bbl
174	Tank 281	Fixed roof	Gas oil	134 thousand bbl
175	Tank 284	Fixed rood	Gas oil	134 thousand bbl
177	Tank 287	external floating roof	gasoline	104 thousand bbl
178	Tank 288	external floating roof	diesel	104 thousand bbl
182	Tank 294	fixed roof	naphtha	40 thousand bbl
183	Tank 295	external floating roof	naphtha	13 thousand bbl
184	Tank 296	external floating roof	naphtha	70 thousand bbl
186	Tank 298	external floating roof	naphtha	47 thousand bbl
194	Tank 306	fixed roof	dye	2,000 gal
195	Water Treatment Sludge Tank T-501	fixed-roof	sludge	2,500 bbl
216	Tank 695	external floating roof	naphtha	2.0 million gal
239	Stripped Foul Water Tank T- 212	fixed-roof	sour water	10,000 БЫ
254	Tank 1001	external floating roof	gasoline	104 thousand bbl
255	Tank 1002	external floating roof	gasoline	104 thousand bbl
256	Tank 1003	external floating roof	gasoline	104 thousand bbl
257	Tank 1004	internal floating roof tank with dome roof	gasoline	104 thousand bbl

Table II A - Permitted Sources

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-301.

S#	Description	Make or Type	Model	Capacity	
258	Tank 1005	internal floating roof tank with dome roof	gasoline	104 thousand bbl	
259	Tank 1006	external floating roof	gasoline	104 thousand bbl	
261	Tank 1010	external floating roof	naphtha, distillate oil	104 thousand bbl	
294	Non-Retail Gasoline Dispensing Facility (GDF 7609 – 1 nozzle)	phase I / II vapor recovery	EW A4000	15,000 gal underground tank	
ź96	C-1 Flare (main refinery flare, elevated, steam-assisted, serves S304, S305, S306)	Callidus		845 ton/hr gas handling capacity, 6.6 MMbtu/hr pilot	
300	U200 Delayed Coker	delayed coker	NA	81,000 bbl/day	
301	Molten Sulfur Pit 234	NA	NA	271 long ton/day for S30 S302, S303	
302	Molten Sulfur Pit 236	NA	NA	271 long ton/day for S3 S302, S303	
303	Molten Sulfur Pit 238	NA	NA	271 long ton/day for S3 S302, S303	
304	U229 Light Naphtha Hydrotreater	NA	NA	12,198 bbl/day monthly average	
305	U230 Prefractionator/Naphtha Hydrotreater	NA	NA	28,000 bbl/day	
306	U231 Platforming Unit	NA	NA	21,000 bbl/day	
307	U240 Unicracking Unit	NA	NA	65,000 bbl/day	
308	U244 Reforming Unit	NA	NA	18,500 bbl/day	
309	U248 UNISAR Unit	NA	NA	16,740 bbl/day	
318	U76 Gasoline/Mid Barrel Blending Unit	NA	NA	113,150 bbl/day petroleum fluids except diesel, No daily limit for diesel	
319	U215 Gasoline Fractionating Unit	NA	NA	9,600 bbl/day	
322	U40 Raw Materials Receiving	NA	NA	throughput limited at specific tanks, process units	
324	U100 API Oil Wastewater Separator (with outlet channel cover)	NA	NA	7,500 gpm during media filter backwash and 7,00 gpm during all other tim	
334	Tank 107	external floating roof	crude oil	180 thousand bbl	
336	U231 B-104 Heater (natural gas, refinery fuel gas)	Foster-Wheeler	process heater	111 MMbtu/hr	
337	U231 B-105 Heater (natural gas, refinery fuel gas)	Foster-Wheeler	process heater	34 MMbtu/hr	
338	U233 Fuel Gas Center			7.5 E 6 cubic feet/hr	
339	U80 Refined Oil Shipping Unit	gasoline shipping		294 thousand gal/hr	
		external floating roof			

.

Table II A - Permitted Sources

S#	Description	Make or Type	Model	Capacity
341	Tank 208	external floating roof	gasoline	103 thousand bbl
342	Tank 209	external floating roof	gasoline	103 thousand bbl
343	Tank 210	external floating roof	gasoline	103 thousand bbl
350	U267 Crude Distillation Unit	atmospheric/vacuum towers		36,000 bbl/day
351	U267 B-601/602 Tower Pre- heaters (natural gas, refinery fuel gas)			95 MMbtu/hr
3.51	Combustion Turbine	Westinghouse	191	291 MMbtu/hr
352	(natural gas, refinery fuel gas)	westinghouse	191	continuously
3.52	Combustion Turbine	Westinghouse	191	291 MMbtu/hr
353	(natural gas, refinery fuel gas)	westinghouse	171	continuously
333	Combustion Turbine	Westinghouse	191	291 MMbtu/hr
354	(natural gas, refinery fuel gas)	westinghouse	171	continuously
557	Supplemental Firing Duct	Coen		175 MMbtu/hr
	Burners			110 111100011
355	(natural gas, refinery fuel gas)			
555	Supplemental Firing Duct	Coen		175 MMbtu/hr
	Burners	COOL .		
356	(natural gas, refinery fuel gas)			
	Supplemental Firing Duct	Coen		175 MMbtu/hr
	Burners			
357	(natural gas, refinery fuel gas)		5	
360	Mid-Barrel Tank 223	fixed roof	distillate oil	110 thousand bbl
370	U228 Isomerization Unit			460 bbl/hr
	U228 B-520 (Adsorber Feed)	Selas		58 MMbtu/hr for S371,
	Furnace			372
371	(natural gas, refinery fuel gas)			
	U228 B-521 (Hydrogen Plant)	Selas		58 MMbtu/hr for S371,
	Furnace	,		372
372	(natural gas, refinery fuel gas)			
376	Tool Room Cold Cleaner	Build-All	DM-32	29 gal
377	Machine Shop Cold Cleaner	Build-All	DM-32	29 gal
378	Auto Shop Cold Cleaner	Snap-On	DM-226	18 gal
380	Activated Carbon Silo (P-204)			50,000 lb
381	Aeration Tank, Pact (F-201)	wastewater	100 ft dia	1.2 million gal
382	Aeration Tank, Pact (F-202)	wastewater	100 ft dia	1.2 million gal
383	Clarifier, F-203	wastewater	95 ft dia	0.69 million gal
384	Clarifier (F-204)	wastewater	95 ft dia	0.69 million gal
385	Media Filter (F271-F278)	wastewater		420 thousand gal/hr
	PAC Regeneration Sludge		25 ft dia	44,000 gal
386	Thickener (F-211)			· · ·
387	Wet Air Regeneration (P-202)	Zimpro		15 gpm

Table II A - Permitted Sources

S#	Description	Make or Type	Model	Capacity
	F-106 Thickened Sludge	15 ft diameter open tank		38,000 gal
390	Storage			
	Regenerated PAC Slurry	fixed roof		42,000 gal
392	Storage Tank F-266			
	MP-30 Flare (backup refinery	John Zink	Q5-48C	845 ton/hr gas handling
398	flare, elevated, steam-assisted,			capacity, 3.1 MMbtu/hr
	serves \$304, \$305, \$306)	y		pilot
	Wet Weather Wastewater Sump	32 ft x 36 ft x 23 ft deep		175 thousand gal
400	(with vented cover)			
	Dry Weather Wastewater Sump	33 ft x 25 ft x 26 ft deep		150 thousand gal
401	(with vented cover)			
		2 permitted arms		Products: 25,000 bbl/day
				annual average for S425,
				S426 total; Crude oil or gas oil:
				51,182 bbl/day annual average for S425, S426
425	Morino Loodino Dorth MI			total
423	Marine Loading Berth M1	4 permitted arms		Products: 25,000 bbl/day
		4 permitted arms		annual average for S425,
				S426 total:
				Crude oilor gas oil: 51,182
				bbl/day annual average for
426	Marina Loading Darth M2			S425, S426 total
420	Marine Loading Berth M2 U215 Deisobutanizer			10,200 bbl/day
432	MOSC Storage Tank	fixed roof		30,000 gal
435	MOSC Slorage Talik	1120 1001		23,000 bbl/day (8,395,000
	U246 High Pressure Reactor			bbl per 12 months annual
434	Train (Cracking)			daily average)
435	Reformate Splitter			18,100 bbl/day
436	Deisopentanizer			13,400 bbl/day
437	Hydrogen Manufacturing Unit			28.5 million scf/day
137	U110, H-1 (H2 Plant	John Zinc PFFG burners	reforming	250 MMbtu/hr
	Reforming) Furnace	sourcement in Grounders	furnace	155 CHAILENNI III
	(natural gas, refinery fuel gas,			
438	PSA offgas)			
		external floating roof	Crude oil,	161 thousand bbl
			gasoline,	
439	Tank 109		others	
440	Tank 110 (Alkylate)	external floating roof	alkylate	161 thousand bbl
		external floating roof	crude oil,	161 thousand bbl
442	Tank 112		gas oil	
		external floating roof	gasoline,	113 thousand bbl
444	Tank 243		others	
445	Tank 271 (Cracked Naphtha)	fixed roof tank	naphtha	189 thousand bbl

Table II A - Permitted Sources

S#	Description	Make or Type	Model	Capacity
446	Tank 310 (Isopentane)	fixed roof	isopentane	41 thousand bbl
447	Tank 311 (Isopentane)	fixed roof	isopentane	41 thousand bbl
448	Tank 1007 (Blendstock Receiving)	internal floating roof	gasoline, diesel, others	243 thousand bbl
449	Tank 285 (Cracked Naphtha)	fixed roof	naphtha	189 thousand bbl
450	Groundwater Extraction Trenches		ground- water remediation	3 gpm continuously
453	U236 Cooling Tower	Induced draft	Unknown	13,500 gpm
455	U240 Cooling Tower	Induced draft	Unknown	33,000 gpm
460	U250 Diesel Hydrotreater	NA	NA	35,000 bbl/day monthly average
461	U250, B-701 Heater (natural gas, refinery fuel gas)	NA	process heater	50.2 MMbtu/hr
462	U215 Fuel Gas Caustic Treatment System	NA	NA	4.2 million scf/day of fuel gas
463	U215 Butane Caustic Treatment System	NA	NA	1,000 bbl/day of butane
465	Molten Sulfur Pit	NA	NA	200 long ton/day
503	Sulfur Storage Tank			471 long ton/day sulfur
504	Sulfur Degassing			400 long tons/day sulfur
505	Sulfur Truck Loading Rack			200 gpm sulfur
506	Tank 257	fixed roof	heavy unicrackate	80 thousand bbl
507	Tank 21, Unit 76 Active Skimmer System	fixed roof		450 gallons
1002	Sulfur Plant Unit 236 (including aux. burner, water stripper)		Claus	201 long ton/day for S1002 and S1003 combined
1003	Sulfur Plant Unit 238 (including aux. burner)		Claus	201 long ton/day for S1002 and S1003 combined
1007	U100 Dissolved Air Flotation Unit (with fixed roof)			7,500 gpm during media filter backwash and 7,000 gpm during all other times
1008	U100 Primary Stormwater Basin			2.3 MMgal
1009	U100 Main Stormwater Basin			7.2 MMgal
1010	Sulfur Plant Unit 235 (including aux. burner)		Claus	200 long ton/day
1012	Fire Training Fluid Tank	fixed roof	E-III Industrial Grade	8000 gallon

VI. Permit Conditions

[Consent Decree Case No. 05-0258 amendment, paragraph 123, DATE: 5/1/07]

- 8. The owner/operator shall maintain monthly records of throughput at S301, S302, and S303 combined. These records shall be maintained on site for a minimum of 5 years and shall be made available to District staff upon request. [Cumulative Increase]
- 9. The owner/operator shall maintain monthly records of throughput at S465. These records shall be maintained on site for a minimum of 5 years and shall be made available to District staff upon request. [Cumulative Increase]

CONDITION 22965

Source S307, U240 Unicracking Unit

- 1. The owner/operator shall ensure that the throughput of S307 does not exceed 65,000 barrels/day. [Cumulative Increase]
- The owner/operator shall keep throughput records for this source on a daily basis. The records shall be kept on site for a period of at least 5 years and shall be made available for inspection by District staff upon request. [Cumulative Increase]
- 3. All pressure relief devices on the process unit shall be vented to a fuel gas recovery system, furnace, or flare with a recovery/destruction efficiency of 98% by weight. [8-28-302, BACT]

CONDITION 22966

Source S308, U244 Reforming Unit

- 1. The owner/operator shall ensure that the throughput of S308 does not exceed 18,500 barrels/day.
- The owner/operator shall keep throughput records for this source on a daily basis. The records shall be kept on site for a period of at least 5 years and shall be made available for inspection by District staff upon request. [Cumulative Increase]
- 3. All pressure relief devices on the process unit shall be vented to a fuel gas recovery system, furnace, or flare with a recovery/destruction efficiency of 98% by weight. [8-28-302, BACT]

CONDITION 22967

Source S309, U248 Unisar Unit

- 1. The owner/operator shall ensure that the throughput of S309 does not exceed 16,740 barrels/day.
- 2. The owner/operator shall keep throughput records for this source on a daily basis. The records shall be kept on site for a period of at least 5 years and shall be made available for inspection by District staff upon request. [Cumulative Increase]

CONDITION 22968

Source S339, U80 Gasoline/Mid Barrel Blending

1. The owner/operator shall ensure that the throughput of S339 does not exceed 52,600,000 barrels

Revision Date: January 25, 2018

EXHIBIT B

EXHIBIT B

Emphasis in attached excerpts were created by Petitioner CBE, ET AL., PETITION TO OBJECT TO RENEWAL TITLE V MAJOR FACILITY REVIEW PERMIT March 19, 2018

Bay Area Air Quality Management District

<u>375 Beale Street, Suite 600</u>939 Ellis Street San Francisco, CA 94109<u>94105</u> (415) 771-6000

FinalDraft

MAJOR FACILITY REVIEW PERMIT

Issued To: Phillips 66– San Francisco Refinery Facility #A0016

Facility Address: 1380 San Pablo Avenue Rodeo, CA 94572

Mailing Address: 1380 San Pablo Avenue Rodeo, CA 94572

Responsible OfficialFacility ContactRand SwensonMark Evans, Refinery ManagerJennifer AhlskogBrent Eastep, SeniorEnvironmental SpecialistConsultant510 245 4415510 245 4415510 245 4672439

Type of Facility: Primary SIC: Lee Product: Petroleum refinery 2911 BAAQMD Engineering Division Contact: Brian Lusher<u>M.K. Carol</u>

Refined petroleum products

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Signed by Jeff McKay for Jack P. Broadbent Jack P. Broadbent, Executive Officer/Air Pollution Control Officer <u>August 1, 2014</u> Date

[

Table II A - Permitted Sources

S#	Description	Make or Type	Model	Capacity
194	Tank 306	fixed roof	dye	2,000 gal
195	Water Treatment Sludge Tank T-501	fixed-roof	sludge	2,500 bbl
196	Water Treatment Sludge Tank T-502	fixed-roof	sludge	2,500 bbl
216	Tank 695	external floating roof	naphtha	2.0 million gal
239	Stripped Foul Water Tank T- 212	fixed-roof	sour water	10,000 БЫ
254	Tank 1001	external floating roof	gasoline	104 thousand bbl
255	Tank 1002	external floating roof	gasoline	104 thousand bbl
256	Tank 1003	external floating roof	gasoline	104 thousand bbl
257	Tank 1004	internal floating roof tank with dome roof	gasoline	104 thousand bbl
258	Tank 1005	internal floating roof tank with dome roof	gasoline	104 thousand bbl
259	Tank 1006	external floating roof	gasoline	104 thousand bbl
261	Tank 1010	external floating roof	naphtha, distillate oil	104 thousand bbl
294	Non-Retail Gasoline Dispensing Facility (GDF 7609 – 1 nozzle)	phase I / II vapor recovery	EW A4000	15,000 gal underground tank
296	C-1 Flare (main refinery flare, elevated, steam-assisted, serves S304, S305, S306)	Callidus		845 ton/hr gas handling capacity, 6.6 MMbtu/hr pilot
300	U200 Delayed Coker	delayed coker	NA	81,000 bbl/day
301	Molten Sulfur Pit 234	NA	NA	271 long ton/day for S301, S302, S303
302	Molten Sulfur Pit 236	NA	NA	271 long ton/day for S301, S302, S303
303	Molten Sulfur Pit 238	NA ,	NA	271 long ton/day for S301, S302, S303
304	<u>U229</u> Light Naphtha Hydrotreater	NA	NA	12,198 bbl/day monthly average
305	U230 Prefractionator/Naphtha Hydrotreater	NA	NA	28,000 bbl/day
306	U231 Platforming Unit	NA	NA	21,000 bbl/day
307	U240 Unicracking Unit	NA	NA	42 <u>65,000 bbl/day</u>
308	U244 Reforming Unit	NA	NA	16,087<u>18,500</u> bbl/day
309	U248 UNISAR Unit	NA	NA	16,740 bbl/day
318	U76 Gasoline/Mid Barrel Blending Unit	NA	NA	113,150 bbl/day petroleum fluids except diesel, No daily limit for diesel
319	U215 Gasoline Fractionating Unit	NA	NA	9,600 bbl/day

Table II A - Permitted Sources

S#	Description	Make or Type	Model	Capacity	
376	Tool Room Cold Cleaner	Build-All	DM-32	29 gal	
377	Machine Shop Cold Cleaner	Build-All	DM-32	29 gal	
378	Auto Shop Cold Cleaner	Snap-On	DM-226	18 gal	
380	Activated Carbon Silo (P-204)			50,000 lb	
381	Aeration Tank, Pact (F-201)	wastewater	100 ft dia	1.2 million gal	
382	Aeration Tank, Pact (F-202)	wastewater	100 ft dia	1.2 million gal	
383	Clarifier, F-203	wastewater	95 ft dia	0.69 million gal	
384	Clarifier (F-204)	wastewater	95 ft dia	0.69 million gal	
385	Media Filter (F271-F278)	wastewater		420 thousand gal/hr	
386	PAC Regeneration Sludge Thickener (F-211)		25 ft dia	44,000 gal	
387	Wet Air Regeneration (P-202)	Zimpro		15 gpm	
388	-Water-Freatment-Sludge Tanks (T276, F205)	30 ft dia by 24-ft 1 2 ft dia by 24 ft		3,500 bbl	
389	Diatomaceous-earth silo (F-214)			4 0,000 lb	
390	F-106 Thickened Sludge Storage	15 ft diameter open tank		38,000 gal	
392	Regenerated PAC Slutry Storage Tank F-266	fixed roof		42,000 gal	
398	MP-30 Flare (backup refinery flare, elevated, steam-assisted, serves S304, S305, S306)	John Zink	Q5-48C	845 ton/hr gas handling capacity, 3.1-MMbtu/hr pilot	
400	Wet Weather Wastewater Sump (with vented cover)	32 ft x 36 ft x 23 ft deep		175 thousand gal	
401	Dry Weather Wastewater Sump (with vented cover)	33 ft x 25 ft x 26 ft deep		150 thousand gal	
425	Marine Loading Berth M1	2 permitted arms		Products: 25,000 bbl/day annual average for S425, S426 total; Crude oil or gas oil: 51,182 bbl/day annual average for S425, S426 total	
		4 permitted arms		Products: 25,000 bbl/day annual average for S425, S426 total; Crude oilor gas oil: 51,182 bbl/day annual average for	
426	Marine Loading Berth M2			S425, S426 total	
432	U215 Deisobutanizer			7,600<u>10,200</u> bbl/day	
433	MOSC Storage Tank	fixed roof		30,000 gal	
_				23,000 bbl/day (8,395.000	
	U246 High Pressure Reactor			bbl per 12 months annual	
434	Train (Cracking)			daily average)	
435	Reformate Splitter			18,100 bbl/day	

EXHIBIT C

EXHIBIT C

Emphasis in attached excerpts were created by Petitioner CBE, ET AL., PETITION TO OBJECT TO RENEWAL TITLE V MAJOR FACILITY REVIEW PERMIT March 19, 2018

Bay Area Air Quality Management District

939 Ellis Street San Francisco, CA 94109 (415) 771-6000

Final

MAJOR FACILITY REVIEW PERMIT

Issued To: **Phillips 66– San Francisco Refinery** Facility #A0016

Facility Address: 1380 San Pablo Avenue Rodeo, CA 94572

Mailing Address: 1380 San Pablo Avenue Rodeo, CA 94572

Responsible Official Rand Swenson, Refinery Manager 510 245 4415

Facility Contact Jennifer Ahlskog, Environmental Specialist 510 245 4439

Type of Facility: Primary SIC: Product:

Petroleum refinery 2911 Refined petroleum products

BAAQMD Engineering Division Contact: Brian Lusher

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Signed by Jeff McKay for Jack P. Broadbent August 1, 2014 Jack P. Broadbent, Executive Officer/Air Pollution Control Officer

Date

Table II A - Permitted Sources

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388	Water Treatment Sludge Tanks (T276, F205)	30 ft dia by 24 ft 12 ft dia by 24 ft		3,500 bbl
389	Diatomaceous earth silo (F-214)			40,000 lb
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432	U215 Deisobutanizer	· · · ·		7,600 bbl/day
433	MOSC Storage Tank	fixed roof		30,000 gal
12.4	U246 High Pressure Reactor			23,000 bbl/day
434	Train (Cracking)			
435	Reformate Splitter			18,100 bbl/day
436	Deisopentanizer			13,400 bbl/day

EXHIBIT D

EXHIBIT D

Emphasis in attached excerpts were created by Petitioner CBE, ET AL., PETITION TO OBJECT TO RENEWAL TITLE V MAJOR FACILITY REVIEW PERMIT March 19, 2018

Bay Area Air Quality Management District

375 Beale Street, Suite 600 San Francisco, CA 94105-2001 (415) 749-5000

Permit Evaluation and Statement of Basis for RENEWAL of

MAJOR FACILITY REVIEW PERMIT

for Phillips 66 – San Francisco Refinery Facility #A0016

> Facility Address: 1380 San Pablo Avenue Rodeo, CA 94572

> Mailing Address: 1380 San Pablo Avenue Rodeo, CA 94572

> > November 2017

Application Engineer: M.K. Carol Lee Site Engineer: M.K. Carol Lee

Applications: 27798, 21850, 22672, 26487, 27532, 27560, 28688

9/10/2015 and an administrative amendment on 9/17/2015. The Refinery was unable to install the thermal oxidizer within the two-year period of their Authority to Construct and a request for renewal of their Authority to Construct was submitted on August 1, 2017. The thermal oxidizer is expected to be installed by the end of 2017.

Application 27557 requested a change to lower the minimum S-1010 Sulfur Recovery Unit tail gas incinerator temperature (A-424) from 1496 degrees F to 1409 degrees F. The facility provided source test data at the new temperature that ensures there is no increase in emissions above existing permit limits.

Application 28110 requested revisions for 2 of the 15 sources with NOx boxes under condition 21235. Phillips 66 requested revisions to 4 of 27 NOx boxes.

Application 28687 was for a permit application for a new Fire Training Liquid Storage Tank. An Authority to Construct was issued on 7/25/2017. The storage tank is expected to be installed by the end of 2017.

The engineering evaluations for all the NSR applications to be included with the Title V permit renewal are attached to this statement of basis. Each engineering evaluation shows the effect on emissions for each permit application.

NSR	Description	Title V.	Revision	NSR
Application		Application		Issuance
				Date
23987	Steam Power Plant, Request to Increase in SO2 Permit Limits	23988	TBD	TBD
25199	Propane Recovery Project	25200	Minor	Authority to Construct 3/18/15
25608	Marine Terminal, Request to Increase Crude brought by ship	28082	TBD	TBD
27954	S307 U240 Unicracking Unit and S434 U246 High Pressure Reactor Train, Request to Increase Throughput	27955	TBD	TBD
27870	Temporary Thermal Oxidizer for S-324 Oil Water Separator	None	Not Applicable	Authority to Construct 4/12/16

The facility has submitted following applications that will not be processed with the Title V permit renewal because they have not yet been issued or commenced construction:

Notes: NSR = New Source Review

Application 23987 is a request to increase the SO2 permit limits at the Steam Power Plant. This application has not been processed. The increase in SO2 hourly emission rates requested by Phillips 66 may make the gas turbines and duct burners subject to Standards of Performance for Stationary Combustion Turbines. An applicability determination request has been submitted by Phillips 66 to the USEPA to determine if the gas turbines and duct burners would become subject to Subpart KKKK if the short term SO2 permit limits were increased.

Application 25199 is for an Authority to Construct two new sources that would allow the Phillips 66 Refinery to start to recover propane from the existing fuel gas system and increase the amount of butane recovered from the fuel gas system. The project planned to install S-520 Refinery Fuel Gas Hydrotreatment Unit (27.25 MMscf/day) and S-521 LPG Recovery Unit (14,500 bbl/day). The project also altered numerous other Refinery sources. The project received an Authority to Construct on March 18, 2015, but has not yet commenced construction. The changes to the Title V permit associated with this NSR application will be processed when the project is closer to being constructed and actually starting to operate.

Application 25608 is a request to increase the marine terminal (S425, S426) permit limit for crude oil from 51,182 barrels per day to 101,182 barrels per day. The application also requests that the corresponding ship and tanker permit limits be increased from 59 to 114 tankers or ships per 12-month rolling average basis. The refinery processes crude from central California received by pipeline and from a variety of domestic and foreign crude sources delivered by ship at the marine terminal. The application does not request any throughput increases or modifications to downstream process units. However, some tankage may be affected by the increase in crude oil across the marine terminal. Phillips 66 has stated that the permit changes will not change or affect the types of crude oil that the refinery can process currently.

Application 27954 is a request to increase the throughput through S307 U240 Unicracking Unit and S434 Heavy Gas Oil Hydrocracker by 4,000 barrels per day above the existing 65,000 barrels per day permit limit. Three downstream tanks will also require throughput increases.

Application 27870 is for an Authority to Construct a thermal oxidizer to abate emissions from S-324 API Oil Water Separator. This unit is a rented unit and the permanent thermal oxidizer permitted under application 27061 should be online in the September 2017. The oxidizer permitted under application 27870 will no longer need to operate.

B. Facility Description

This facility is a typical full-scale oil refinery, which processes crude oils and other feedstocks into refined petroleum products, primarily fuel products such as gasoline and fuel oils. Feedstocks are received via marine tanker vessels and pipeline, and petroleum products are shipped from the refinery the same way. Refining is a process which takes crude oil and distills it under atmospheric pressure into its primary components: gases (light ends), gasolines, kerosene and diesels (middle distillates), heavy distillates, and heavy bottoms. The heavy bottoms go on to a vacuum distillation unit to be distilled again, this time under a vacuum, to salvage any light ends or middle distillates that did not get separated under atmospheric pressure; the heaviest bottoms are eventually processed into coke. Other

APPENDIX B - BAAQMD ENGINEERING EVALUATION REPORTS

NSR	Description	Title V
Application		Application
21848	NOx Box Revisions	21850
22671	Hot Standby Mode for S45 and	22672
	S461	
26486	S442 Tank 112 Change of	26487
	Conditions	
27061	Thermal Oxidizer for S-324 API	27532
	Oil Water Separator	
27557	SRU Temperature Limit, Change	27560
	of Conditions	
28110	NOx Box Revisions S3, S9	None
28687	Fire Training Fluid Storage Tank	28688

ENGINEERING EVALUATION ConocoPhillips, San Francisco Refinery Application #26486- Plant #16

I. BACKGROUND

ConocoPhillips has applied for a change of conditions for the following equipment:

S442 External Floating Roof Tank, 6,762K barrel capacity (Tank 112)

The facility receives and refines both gas oil and crude oil. The tank currently only stores gas oil. The facility would like the ability to also store crude oil in S442. The facility has also requested a throughput increase from 2.74 to 10 MMbbl/yr for gas oil or crude oil service.

The ability to store crude oil in tank S442 will allow the Refinery to store more crude oil which may reduce vessel trips at the marine terminal. The Refinery can sometimes only partly unload a vessel, and the vessel may actually have to return to the Refinery later to complete the unloading operation. In addition, allowing S-442 to store both gas oil and crude oil will afford the facility greater flexibility in removing other storage tanks from service so maintenance can be performed. Application 22904 allowed the Refinery to increase the amount of crude received by the marine terminal.

This application does not involve changing the type of crude oil processed by the Refinery or increasing the amount of crude oil processed by the Refinery. District staff verified that the amount of crude oil storage is not a "bottleneck" to the amount of crude oil that the Refinery can process. S97 (Tank 100) has a capacity of 298,000 bbl. S-334 (Tank 107) has a capacity of 180,000 bbl. S-340 (Tank 108) has a capacity of 200,000 bbl. Each of these tanks has sufficient capacity to provide more crude oil in a day than the Refinery can currently process. The Refinery has permit limits at S-350 crude unit (36,000 bbl/day) and at S-300 delayed coker (81,000 bbl/day) which limit the amount of crude oil that may be processed by the Refinery on a daily basis.

District staff also verified that the storage capacity of gas oil is not a "bottleneck" to the amount of material the Refinery can process. The Refinery currently processes the majority of gas oil at S-307 U240 Unicraking Unit. Condition 22965 limits the daily throughput of S-307 to 65,000 bbl/day. The amount of gas oil processed at S-307 includes the amount of gas oil that can be processed at S-434 U246 High Pressure Reactor Train (Cracking) which has a capacity of 23,000 bbl/day (Table II of Title V permit). S168 Tank 269, S173 Tank 280, and S174 Tank 281 each has a capacity of 134,000 bbl. S442 Tank 112 has a capacity of 6,762,000 bbl. Each of these tanks has sufficient capacity to provide more gas oil in a day than the Refinery can currently process.