

CONTRA COSTA COUNTY
HAZARDOUS MATERIALS COMMISSION

Thursday, January 23, 2020

4:00 p.m. – 6:00 p.m.

The County Connection
2477 Arnold Industrial Way, Board Room
Concord CA 94520

COMMISSION ACTION MAY BE TAKEN ON ANY ISSUE IDENTIFIED IN THIS AGENDA

The Contra Costa County Hazardous Materials Commission will provide reasonable accommodations for persons with disabilities planning to attend the Hazardous Materials Commission meetings who contact Michael Kent, Hazardous Materials Commission Executive Assistant, at least 24 hours before the meetings, at (925) 313-6587

AGENDA

1. CALL TO ORDER, ANNOUNCEMENTS AND INTRODUCTIONS
 2. APPROVAL OF MINUTES: December 5, 2019
 3. PUBLIC COMMENT
 4. HAZARDOUS MATERIALS PROGRAMS REPORT Randy Sawyer
 5. OPERATIONS COMMITTEE REPORT Committee Chair
 6. PLANNING AND POLICY DEVELOPMENT COMMITTEE REPORT Committee Chair
 7. OLD BUSINESS:
 - a) None
 8. NEW BUSINESS:
 - a) Elect commission chair and vice chair
 - b) Presentation on proposed deepening of San Francisco Bay Shipping Channels.... Ryan Hernandez, Contra Costa Water Agency
 - c) Consider recommendation from Communities for a Better Environment that the County perform an independent analysis of process hazards associated with the recent and foreseeable future introduction of new types of oil feed stocks at Phillips 66
 - d) Set committee priorities for 2020.
 9. REPORTS FROM COMMISSIONERS ON MATTERS OF COMMISSION INTEREST Members
 10. PLAN NEXT AGENDA
 11. ADJOURNMENT
- Attachments

Questions: Call Michael Kent (925) 313-6587

Any disclosable public records related to an open session item on a regular meeting agenda and distributed by Contra Costa Health Services to a majority of members of the Hazardous Materials Commission less than 72 hours prior to that meeting are available for public inspection at 597 Center Avenue in Martinez

597 Center Avenue, Suite 200, Martinez CA 94553 (925) 313-6712 Fax (925) 313-6721

CONTRA COSTA COUNTY
HAZARDOUS MATERIALS COMMISSION
597 Center Avenue, Suite 200
Martinez CA 94553
2020 MEMBERSHIP ROSTER

REPRESENTATIVES	MEMBERS (ALTERNATES)	EXPIRATION
Business Seat #1 * West County Council of Industries * Veolia North America	Fred Glueck Aaron Winer (A)	December 31, 2022 December 31, 2022
Business Seat #2 * Industrial Association * Marathon Oil Refinery	Mark Hughes Peter Dahling (A)	December 31, 2021 December 31, 2021
Business Seat #3 * Contra Costa Taxpayers Association * Contra Costa Taxpayers Association	Don Bristol Marj Leeds (A)	December 31, 2020 December 31, 2020
City Seat #1 * City of El Cerrito * City of San Ramon	Gabe Quinto Dave Hudson (A)	December 31, 2022 December 31, 2022
City Seat #2 * City of Martinez * City of Concord	Mark Ross Edi Birsan (A)	December 31, 2023 December 31, 2023
Environmental Engineering Seat * GBR Smith Group * Innovex Environmental Management	George Smith – Chair Ron Chinn (A)	December 31, 2021 December 31, 2021
Environmental Organization Seat #1 * * Sierra Club	Vacant Lisa Park (A)	December 31, 2021 December 31, 2021
Environmental Organization Seat #2 * Richmond South Shoreline Area Community Advisory Group * John Muir Land Trust	Steven Linsley Linus Eukel (A)	December 31, 2020 December 31, 2020
Environmental Organization Seat #3 * Sierra Club * Sustainable Contra Costa	Jonathan Bash Ed Morales (A)	December 31, 2023 December 31, 2023
General Public Seat	Vacant Tim Bancroft (A)	December 31, 2023 December 31, 2023
Labor Seat #1 * Central Labor Council *	Rick Alcaraz Vacant (A)	December 31, 2020 December 31, 2020
Labor Seat #2 * United Steelworkers - Local 5 * United Steelworkers - Local 5	Jim Payne Tracy Scott (A)	December 31, 2023 December 31, 2023
League of Women Voters Seat	Leslie Stewart Rita Xavier (A)	December 31, 2020 December 31, 2020

Michael Kent, Executive Assistant (925) 313-6587

1/17/2020

** For identification purposes only*

CONTRA COSTA COUNTY HAZARDOUS MATERIALS COMMISSION

2020 MEETING CALENDAR

HAZARDOUS MATERIALS COMMISSION

The County Connection - 2477 Arnold Industrial Way, Board Room
Concord CA 94520

4th Thursday of Each Month, 4:00 p.m. – 6:00 p.m.- (except Nov/Dec)

January 23
February 27
March 26
April 23
May 28
June 25

July 23
August 27
September 24
October 22
December 3

OPERATIONS COMMITTEE

North Richmond Center for Health - 1501 Fred Jackson Way
Richmond CA 94801

2nd Friday of Each Month, 10:00 a.m. – 12:00 noon

January 10
February 14
March 13
April 10
May 8
June 12

July 10
August 14
September 11
October 9
November 13
December 11

PLANNING & POLICY DEVELOPMENT COMMITTEE

United Steelworkers Local 5 (PACE) - 1333 Pine Street, Suite C -1
Martinez CA 94553

3rd Wednesday of Each Month, 4:00 p.m. – 5:30 p.m.

January 15
February 19
March 18
April 15
May 20
June 17

July 15
August 19
September 16
October 21
November 18
December 16

Contra Costa County
HAZARDOUS MATERIALS COMMISSION

Draft Minutes
December 5, 2019

Members and Alternates Present: Jonathan Bash, Don Bristol, Fred Glueck, Mark Hughes, Steve Linsley, Jim Payne, Gabe Quinto, George Smith, Leslie Stewart, Tim Bancroft (alternate), Lisa Park (alternate), Rita Xavier (alternate), Rich Kinney (alternate)

Absent: Rick Alcaraz, Frank Gordon (represented by alternate), Mark Ross (represented by alternate), Ralph Sattler (represented by alternate),

Staff: Michael Kent, Randy Sawyer

Members of the Public: Carl Perkins, Phillips 66; Greg Karras, Andres Soto, CBE; Charlie Davidson, Maureen Brennan, Maren Stanczak, Isabell Ezezi, Shoshana Wechsler, Steve Nadel, Ann ?, Nancy ?

1. Call to Order: Commissioner Smith called the meeting to order at 4:08

Announcements and Introductions:

Michael Kent announced:

- The Chair of the Chemical Safety Board will speak at the CAER Safety Summit on December 12th at the Shell Clubhouse in Martinez starting at 8:00.
- At their December 9th meeting, the Sustainability Committee of the Board of Supervisors will consider a recommendation from Supervisor Gioia that a new Environmental Justice seat be added to the Commission.
- At their December 9th meeting, the Internal Operations Committee of the Board of Supervisors will consider the recommendation from the Commission to reappointment Jim Payne and Tracy Scott in their Labor seat and appoint Ed Morales for the vacant Environmental Seat alternate.
- The annual meeting with Supervisor Burgis will be on December 11th at 3:00 at 651 Pine St., room 108 in Martinez.
- The recommendations from the Commission on pipeline safety should be on the Board of Supervisors agenda on December 10th.

2. Approval of the Minutes:

A motion was made by Commissioner Quinto and seconded by Commissioner Glueck to approve the minutes for the October 24, 2019 meeting. The motion passed 9-0-2 with Commissioners Park and Hughes abstaining. Commissioner Kinney arrived after the vote.

3. Public Comments:

Andres Soto from CBE said that the Army Corp of Engineers held a public meeting on November 13, 2019 concerning the proposed deep water dredging project for Carquinez Straights. He said that they do not have a local co-sponsor yet to pay for half the cost of doing the CEQA review, and have no federal appropriations for the project yet. CBE has been meeting with politicians about the project and CBE doesn't want it to proceed because it only helps the refining industry. They would like to discuss the issue with the Commission.

Maureen Brennan asked if the Transportation, Water and Infrastructure committee of the Board of Supervisors in the appropriate committee to address this issue. Michael Kent responded yes.

4. Hazardous Materials Programs Report:

Randy Sawyer reported:

- The investigation of the October 15, 2019 fire at the Nustar facility next to Phillips 66 is on-going. Two tanks containing ethanol and piping containing other petroleum hydrocarbons caught fire. The investigators are sending materials from the tanks off-site for laboratory analysis. They should get the lab results back in about a week, and they should have a report out on the root cause shortly thereafter. The Board of Supervisors ISO/CWS ad-hoc committee hasn't scheduled a meeting yet to consider whether these type of facilities should be covered by the ISO. They are waiting till the report by the investigators is complete. They are also planning to hold a community meeting at that time. Commissioner Payne as how many facilities like this are in the County. Mr. Sawyer said that there are 12 in the County, but only two of them are in unincorporated areas – the Nustar facility and a facility near Martinez. He said the City of Richmond has said that they would also like to consider adding this type of facility to their Industrial Safety Ordinance. Andre Soto asked if the US Chemical Safety Board was contacted about this incident. Mr. Sawyer said not that he was aware.

5. Operations Committee Report:

Commissioner Glueck reported that the committee conducted two interviews for the General Public seat and then developed recommendations for the Commission to consider.

6. Planning and Policy Development Committee Report:

Commissioner Payne reported that the committee discussed the WSPA lawsuits concerning the recently amended PSM/CalARP regulations and recommendations about the County's legislative platform.

7. Old Business:

- a) **Consider recommendations from the Planning and Policy committee concerning input to the Board of Supervisors Legislative Platform on Brownfield, Pipeline Safety and School Siting issues.**

Michael Kent explained that the Board of Supervisors is transitioning their legislative platform from a policy-based platform to a principle-based platform in 2020. They will keep the items in the current platform for 2020, but will not be adding more. Therefore, the committee decided it would make no sense to make any more recommendations to the Board about any specific proposals, including the proposal to amend the state law concerning the underground storage tank cleanup program which was recently presented to the Planning and Policy committee. Instead, the committee recommended that the Commission come up with some general principle statements for the issues the Commission has been engaged in – brownfields, pipelines, school siting and Environmental Justice.

Commissioner Smith requested that staff come up with some proposed principle statements for these issue area for the Planning and Policy committee to consider, and then the committee should bring their proposed principle statements to the full Commission to consider.

8. New Business:

- a) **Presentation from Phillips 66 on their Marine Terminal application**

Carl Perkins, the refinery manager, introduced himself to begin the presentation. He said he has been the manager of the refinery for about one year and with Phillips 66 for 28 years, splitting his time equally between project work, maintenance and operations.

Mr. Perkins explained that Phillips 66 applied for a modification of their permit with the Bay Area Air Quality Management District (Air District) in 2016 to increase the amount of crude oil they can bring into their facility via ship from their marine terminal. They recently sent the Air District a letter clarifying the intent of their permit application (attached). He said motivation for their desire to modify their permit was a leak of a Planes pipeline in Southern California 2015 which required the pipeline to be replaced. This made Phillips 66 realize that a break to one of their pipelines would cause a reliability issue and their production could go down by as much as two-thirds.

Mr. Perkins then explained the various sources of feedstock coming into their refinery. They get most of their feedstock, approximately 100,000 barrels per day of crude or gas oil, from their refinery in Santa Maria via pipeline. The rest, approximately 51,000 barrels per day, comes by ship and is off-loaded at their marine terminal. So they asked for a modification to their permit to allow them to bring in 125,000 barrels annual average per day of feedstock by ship, though the

original permit application didn't explicitly say that it would only be for when their pipeline supply was cut off.

He also added that the heavy crude supply coming from the Central Valley is going down about 3% per year and the offshore crude that comes to their Santa Maria refinery is very light.

He reiterated that the permit application isn't an expansion of their marine terminal as it doesn't require any physical modification of the terminal. He also added that the letter they sent the Air District clarified that they are committed to only utilizing the extra capacity that would be allowed in the amended permit if their supply via pipeline was interrupted, and only until the pipeline supply is restored. He also added that they can currently bring in 51,000 barrels per year on average of heavy Canadian crude through their marine terminal if they wanted to, but they don't. Over the last five years, they have brought in one ship of Canadian crude per year only because someone else was selling a shipment they couldn't use. He added that if due to an abnormal disruption of their pipeline supply they may choose to bring in Canadian crude through their marine terminal, but not beyond their current capacity.

Commissioner Smith asked what the date of the original permit was. Mr. Perkins said that it was about 10 years old. Commissioner Smith also asked if the proposal assumes the current water depth. Mr. Perkins said it did, but if the channel was deepened they could bring in fuller, thus fewer ships. Commissioner Quinto observed that fewer ships would mean less air pollution.

Michael Kent asked if the commitments in the letter they sent the Air District would be incorporated into the amended permit. Mr. Perkins said that they would be, but in greater detail.

Greg Karras said that what defines abnormal conditions in the proposal is a problem. He also asked if they have had any abnormal conditions in the last few years. Mr. Perkins said they had not had any in the last few years. He added that other refineries they run in joint ventures use Canadian crude, and public references by their CEO about them using Canadian crude were referring to those refineries.

Nancy ? asked why Phillips 66 resubmitted their proposal for their propane/butane project. She felt the area is not seismically safe. She asked why they would be doing this project if they aren't planning to process Canadian tar sands because she believed that the normal crude slate the refinery uses doesn't produce enough propane and butane to warrant the project. Mr. Perkins responded that there is enough propane and butane to warrant the project, and the proposal was designed based on their current crude slate. They are not building additional butane tanks. Their current tanks don't store propane today so there are building elongated propane tanks. He added that the area where the tanks are being planned for is not a liquefaction zone.

Andres Soto asked if the proposed permit would allow double the amount of tankers that could come to the marine terminal. Mr. Perkins said that it would be slightly less than double.

Mr. Perkins said they are also working on developing renewable diesel fuel and are looking at installing solar panels that could generate 8-10 megawatts of energy to be used for backup purposes.

Randy Sawyer said that his program's review of the Process Hazard Analysis (PHA) of the changes allowed as part of an amended Air District permit would happen as part of a regular audit of the facility. His understanding of the proposed Air District permit changes wouldn't trigger the requirement for a County Land Use permit or CEQA.

Maureen Brennan asked if the refinery had a response plan for the spill of bitumen crude that sinks. Mr. Perkins said they have a response plan for their current crude slate. They have tested the crude they have previously brought in and it doesn't sink.

Greg Karras said he would like the Commission to ask for a safety analysis of all the projects the refinery is doing that are associated with switching their crude slate to tar sands. CBE believes they have proved Phillips 66 wants to refine tar sands and have already been refining it. He believes they have started to make a switch. He said there are many impacts from tar sands, and when a refinery changes feedstocks it increases the hazards. He said that on November the 6th Phillips 66 management said they are going to repurpose the diesel hydrotreater. There are hazards associated with doing this. He said the Air District has said the County should be the lead agency for CEQA, but the County hasn't agreed to this. So the Commission should ask for an analysis of all the hazards.

Shoshanna Weschler said she was struck that Mr. Perkins said this facility isn't interested in refining Canadian crude. She said Phillips 66 is the largest importer of Canadian Crude and it is very profitable. So she is skeptical that this facility isn't interested in it.

Commissioner Stewart said she felt the Commission couldn't make that decision on the spot. Chairperson Smith referred CBE's request to the Planning and Policy committee.

b) Consider recommendations from the Operations Committee concerning appointments to the General Public seat and alternate

Commissioner Glueck said the committee interviewed seven candidates for the open General Public seat and alternate seat. The Committee unanimously recommends Audrey Comeaux for the General Public Seat and recommends keeping Tim Bancroft in the alternate seat.

He said that Ms. Comeaux was highly respected for her community services in the Environmental Justice arena and had experience with dealing with diverse perspectives. She had good knowledge and experience with hazardous materials issues and showed a good willingness

to participate in the Commission. Commissioner Bancroft has a good record of service on the Commission and has very good knowledge and experience.

Commissioner Stewart added that it was a difficult choice as each candidate had different strong skills and experience to offer.

The Commission voted 12 – 0 to support the Operations Committee’s recommendations.

c) Discussion of adding an Environmental Justice Seat to the Commission being considered by the Board of Supervisors Sustainability Committee

Michael Kent began the discussion by explaining that Supervisor Gioia had asked that consideration be given at the December 9, 2019 Sustainability committee of the Board of Supervisor to adding an Environmental Justice seat to the Hazardous Materials Commission. He further explained that the memo included in today’s agenda packet was sent to the Sustainability committee as background to the issue, and described the Commission’s long-standing commitment to the issue of Environmental Justice and their consideration of his previous recommendation to add an Environmental Seat to the Commission. He informed the Commission that the agenda packet for the Sustainability Committee had already been published in compliance with the County’s Better Government Ordinance, but that he would relay the outcome of this discussion to the Sustainability committee at their December 9th meeting. He recommended the Commission provide feedback to the Sustainability committee on the issue of whether it would be better to add an Environmental Justice seat to the Commission or replace one of the Environmental Seats on the Commission with an Environmental Justice seat, and on the criteria used to determine eligibility for the seat.

Commissioner Hughes began the discussion by saying that he likes the current approach of the Commission, which is to ask that applicants of the Environmental seats show an understanding of, and commitment to, the principles of Environmental Justice as defined in state law, and likes the fact that Commissioners applying for the Environmental seats are interested in hazardous materials issues broadly, so would be opposed to adding an Environmental Justice seat.

Commissioner Smith said he thought there is currently a good balance of viewpoints on the Commission, and that adding an Environmental Justice seat would might upset that balance, so he would be for replacing one of the Environmental seats if the Board want to add an Environmental Justice seat. He added that when Henry Clark retired off of the commission it definitely created a vacuum in terms of having an Environmental Justice champion. Commissioner Glueck agreed that it would be better to replace one of the Environmental seats rather than add a new seat to the Commission, but he still has a hard time defining the criteria for who could apply for this seat.

Commissioner Stewart said she would also rather convert an Environmental seat rather than create a new seat if the decision is made to add an Environmental seat. She also added that the

Commission has tried to keep the concern with Environmental Justice issues a priority of all the members, and she wouldn't want to see designating one Commissioner as the Environmental Justice representative keep everyone from being involved in considering Environmental Justice concerns. She reminded the Commission that when the Commission was first formed to deal with the Tanner plan the concerns about Environmental Justice were raised by Jean Siri who, while a being a board member of the West County Toxics Coalition, did not live in a frontline community and was not a person of color. And when Leslie herself became Chairperson of the Commission she also made it a priority for the Commission to address Environmental Justice issues, and she did not live in a frontline community and wasn't a person of color.

Commissioner Park said she was concerned how to define a frontline community, as referenced in the Sustainability Committee's application of the term. Michael Kent explained that he thought from the reference in their description to disadvantaged communities that they were defining it as a census tract rank in the top 25% of Cal EnviroScreen.

Commissioner Kinney thought there is high interest in the community with Environmental Justice concerns but there are many different viewpoints on how to address these issues, and he wondered if the seat might get politicized.

Commissioner Bash thought that adding an Environmental Justice seat could be a good chance for the Commission to hear the perspective of someone from a community with Environmental Justice concerns and would help diversify the Commission.

Commissioner Hughes made a motion to recommend to the Sustainability committee that they not change the make-up of the Commission, but if they do, the Environmental Justice seat should replace one of the Environmental Seats. Commissioner Kinney seconded the motion.

Commissioner Glueck asked to make a friendly amendment to the motion that the requirement that applicants demonstrate an understanding of, and commitment to, the principles of Environmental Justice be added for the General Public seat and Environmental Engineer seat as well. Commissioner Hughes accepted the friendly amendment.

Commissioner Linsley said he didn't think this would satisfy Supervisor Gioia's concerns.

Commissioner Payne said he disagreed with replacing one of the Environmental Justice seats.

A member of the public, Isabelle Azizi, commented that she sees a difference between an Environmentalist and someone living in a community with Environmental Justice concerns. She felt the recruitment process should include posting flyers in communities with Environmental Justice concerns. Commissioner Bristol said he agreed with this strategy.

Greg Karras from Communities for a Better Environment, an Environmental Justice group, commented that in his experience, he is sometimes aligned with Environmental groups, and

sometimes not, so he wouldn't replace the Environmental Seat with an Environmental Justice seat, he would add the seat to the total.

The Commission voted 8 – 4 (Comm. Bash, Payne, Bancroft and Linsley) in support of the motion.

9. Reports From Commissioners On Matters of Commission Interest: None

10. Plan Next Agenda:

The Commission will set its priorities for 2020.

11. Adjournment: The meeting adjourned at 6:00 pm.

Attachment

Item 1

Phillips 66 - Marine Terminal Permit Application

- This permit request seeks to ensure a reliable crude oil supply for the future
- This permit request is not a refinery expansion, does not increase volumes of crude/gas oil processed and does not require any construction or modifications
 - Pipeline supply is approximately 100k barrels annual average per day of crude/gas oil
 - The Marine Terminal is currently permitted at approximately 51k barrels annual average per day of crude/gas oil
 - This Marine Terminal permit request is for approximately 125k barrels annual average per day of crude/gas oil
- Phillips 66 has offered the following commitments as part of its application process:
 - Phillips 66 will not utilize the additional volumes requested in the permit application at the Marine Terminal unless there are crude oil supply impacts
 - Under normal operations, Phillips 66 will not unload any heavy Canadian crude oil at the Marine Terminal
 - Under abnormal conditions, Phillips 66 will not unload heavy Canadian crude oil at the Marine Terminal beyond current permitted quantities

Attachment

Item 2

**Proposed County Legislative Platform General Principle Statements from Planning and Policy
Development Committee – January 15, 2020**

Exposure

- 1) Support legislative efforts to reduce or eliminate lead and toxic substances in consumer products, particularly those used by infants and children.
- 2) Support legislative efforts to reduce exposure to toxic air pollutants and reduction of greenhouse gases.

Land Use

- 3) Support legislative efforts to evaluate, clean up and redevelop contaminated sites.
- 4) Support legislative efforts that address the illegal dumping of household hazardous wastes through incentives and enforcement.

Pipeline Safety

- 5) Support legislative efforts that increase the safety of the shipment of hazardous materials by pipeline through better monitoring, detection, operational practices and equipment.

School Siting

- 6) Support legislative efforts that reduce the risk to students from the accidental release of hazardous materials by requiring risk assessments that account for all sources of hazardous materials as part of school siting and re-building decisions.

Goods Movement

- 7) Support legislative efforts to increase and improve waterborne transportation of goods when it increases safety.

Rail Safety

- 8) Support legislative efforts that improve the safety of the shipment of hazardous materials by rail through training for local first responders, increased sharing of data, reduction of material hazards, and appropriate speed limits.

Waste Management

- 9) Support legislative efforts that establish producer responsibility for management at the end of their useful life of products, including pharmaceuticals, batteries, sharps and veterinary medicine.

- 10) Support legislative efforts to allow third parties, under specific circumstances and conditions, to collect and transport household hazardous waste to collection facilities.
- 11) Support legislative efforts that reduce the amount of harmful pharmaceuticals (including veterinary medicine) that ultimately enter waste water treatment facilities, bodies of water, and landfills.

Attachment

Item 3

Phillips 66 San Francisco Refinery tar sands expansion update—tars sands up, and a ‘new’ project component

CBE reported on the Phillips 66 Company’s project to expand the capacity to import and process tar sands oil at its San Francisco Refinery (SFR) in **early 2019**. Now its tar sands imports are increasing drastically, and another part of its tar sands project appears to have been revealed.

Tar Sands Rising

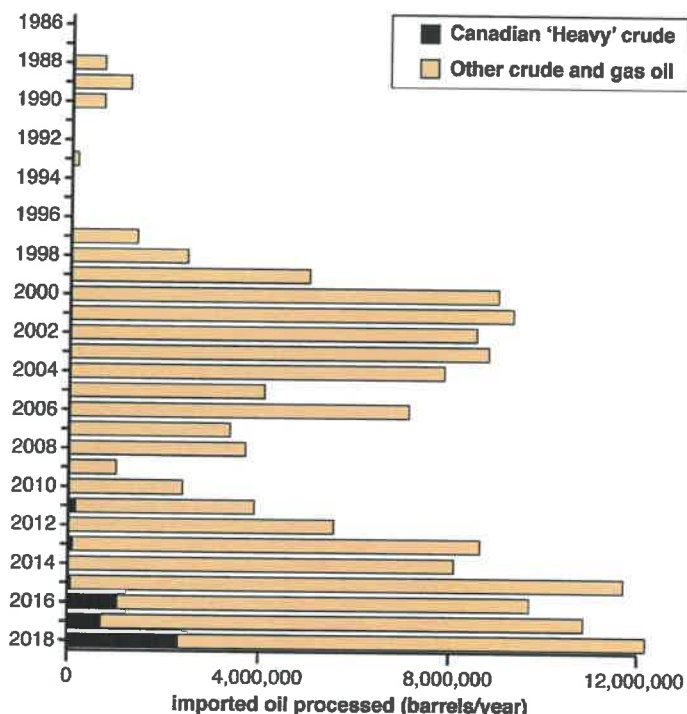
In 2018 the SFR imported and processed more than two million barrels of Canadian ‘Heavy’ crude.¹ Chart 1. Canadian Heavy ($\leq 25^\circ\text{API}$ and ≥ 2 wt. % sulfur) is primarily a ‘dilbit’ mix of diluent oils and bitumen from the Canadian tar sands. It grew to nearly 5 % of the SFR’s total current capacity² by 2018. Chart 2.

Compared with the 158,000 barrels of this oil it refined during 2013–2015, during 2016–2018 the SFR refined 4,081,000 barrels of Canadian Heavy.¹ This means its three-year average tar sands oil refining volume grew over this period by a rate of nearly 25 *times*.

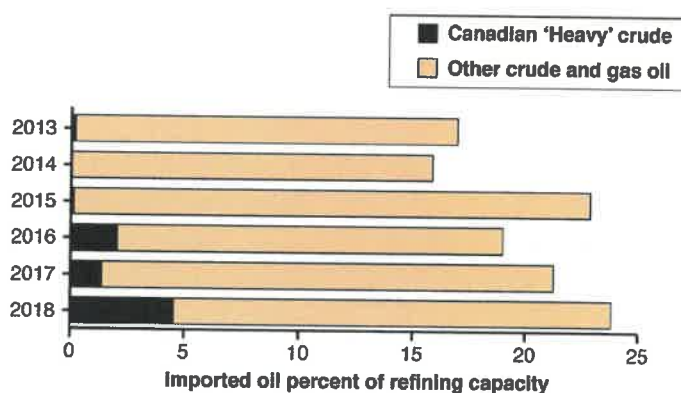
At this rate the Rodeo refinery could make a near-total switch to tar sands oil in another three years or less—but that would require expanding SFR tar sands oil import and refining capacities. Crucially, Phillips 66 has proposed several parts of this expansion, and now has revealed what appears to be a new component of its project

Diesel Hydrotreater Conversion

On 6 November 2019 Phillips 66 told investors it plans “to convert a diesel hydrotreater to run renewable feedstocks like soybean oils” at the SFR.³ Its management talked then about how this could take advantage of the Low Carbon Fuel Standard to boost profits.³ But this *also*



1. Foreign oil imports processed by the San Francisco Refinery from 1986–2018. Canadian Heavy: $\leq 25^\circ\text{API}$ and ≥ 2 % sulfur; is primarily diluted bitumen ‘tar sands’ oil. Data from USEIA imports: www.eia.gov/petroleum/imports/companylevel/archive.



2. Oil imports v. San Francisco Refinery Capacity, 2013–2018. Canadian Heavy: $\leq 25^\circ\text{API}$ and ≥ 2 % sulfur. Foreign imports from USEIA: www.eia.gov/petroleum/imports/companylevel/archive; total San Francisco Refinery capacity (140,000 barrels/day) from Phillips 66: www.phillips66.com/refining/san-francisco-refinery.

continued next page

San Francisco Refinery tar sands expansion update—continued

could help the SFR refine more tar sands oil, and refining biofuels has its own hazards.

Tar sands ‘dilbit’ has a notoriously low crude distillation yield of distillate-diesel. Chart 3. This means that a switch to tar sands could idle some of the diesel hydrotreating capacity at the SFR. So, to maximize profits while switching to tar sands dilbit, the SFR would need another hydrotreater feedstock. The refiner’s newly announced diesel hydrotreater conversion could help it switch to tar sands oil in this way.

Despite the green image, refining biofuels creates new hazards

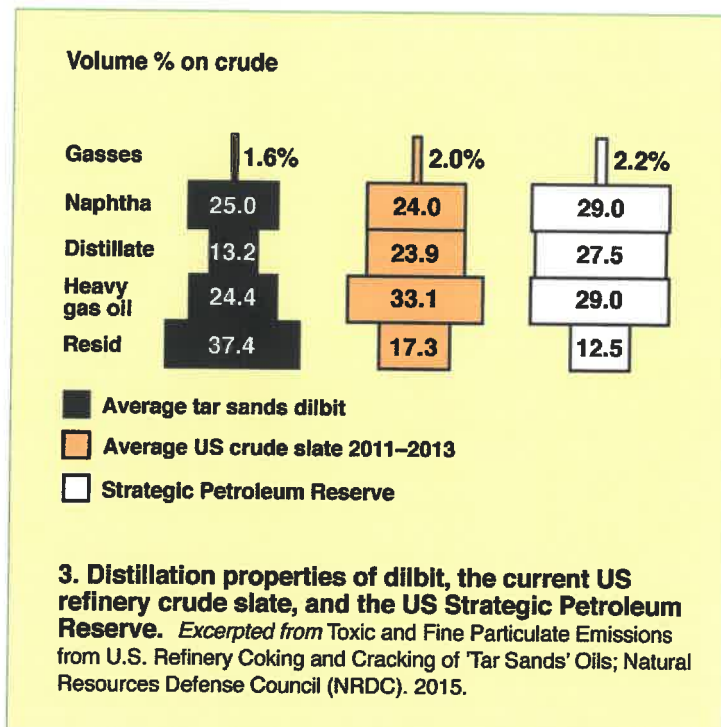
Climate: New investments in refining biofuels instead of in solar-electric vehicles risk carbon lock-in (continuing too much oil refining emissions for too long).

Health: Compared with maximum feasible reliance on solar and wind-powered electric vehicles, over-reliance on biofuels to meet our 2050 climate target could cause 9,300 air pollution deaths statewide each year.⁴

Safety: Introducing a new refinery feedstock introduces new hazards. The Nustar ethanol explosion incident pictured is a disastrous example that this is true for biofuels too.

References:

(1) U.S. Energy Information Administration, *Company Level Imports*; www.eia.gov/petroleum/imports/companylevel/archive. Downloaded 2 December 2019. (2) Phillips 66 Company, *San Francisco Refinery: Facts & Figures*; www.phillips66.com/refining/san-francisco-refinery. Accessed various dates through 3 December 2019. (3) Phillips 66 Company, *Transcript, Phillips 66 2019 Investor Day: Phillips 66 (NYSE: PSX), November 6, 2019 at 8:30 a.m. ET*. (4) Zhao, B., Wang, T., Jiang, Z., Gu, Y., Liou, K.-N., Kalandiyur, N., Gao, Y., and Y. Zhu. Air Quality and Health Cobenefits of Different Deep Decarbonization Pathways in California. *Environmental Science & Technology* 2019 53: 7163–7171. DOI: 10.1021/acs.est.9b02385.



Ethanol tank explosions and fire, Nustar Shore Terminals in Rodeo, October 15, 2019. Photo: Chris Riley, Times-Herald