

**SUMMARY OF COMMENTS RECEIVED
ON DRAFT AIR PERMITS
REGULATING THE EMISSIONS OF AIR POLLUTANTS
(Docket No. 20-CA-PA-13)**

I. OVERVIEW

Pursuant to Hawaii Administrative Rules (HAR) Chapter 11-60.1, a 30-day public comment period was afforded to consider significant modifications to covered source permits (CSPs) for Par East and Par West Refineries subject to greenhouse gas (GHG) emission reductions. The significant modifications amend the permits to incorporate facility-wide GHG emission caps as defined in HAR §11-60.1-202. The facility-wide GHG emissions caps were based on information in the GHG emission reduction plans submitted with each facility’s application for a significant permit modification and additional information from Par Hawaii Refining, LLC (Par) personnel to address the comments received. Par chose partnering for its two affected facilities in accordance with HAR §11-60.1-204(d)(6)(A) to meet the GHG reduction requirements. Partnering allows the affected facilities to combine facility-wide GHG emissions caps to leverage emission reductions in meeting their combined GHG emissions cap. The partnering facilities are:

- 1) Par East Refinery, CSP No. 0212-01-C; and
- 2) Par West Refinery, CSP No. 0088-01-C.

During the public comment period from 12-28-2020 to 1-26-2021, the Department of Health, Clean Air Branch (DOH-CAB) received comments on the draft permits from three (3) commenters. Comments and the DOH-CAB’s responses are addressed below in SECTION II, WRITTEN COMMENTS AND RESPONSES. Comments were received from the following commenters:

Commenter	Date Received
Sierra Club of Hawaii	Letter Postmarked January 16, 2021
Par	January 25, 2021 Email
Blue Planet Foundation	Letter Postmarked January 26, 2021

II. WRITTEN COMMENTS AND RESPONSES

A. Sierra Club of Hawaii Comment:

The Sierra Club objects to the greenhouse gas emission reduction plans submitted for Par East (Komohana Street) and Par West (Makakole Street).

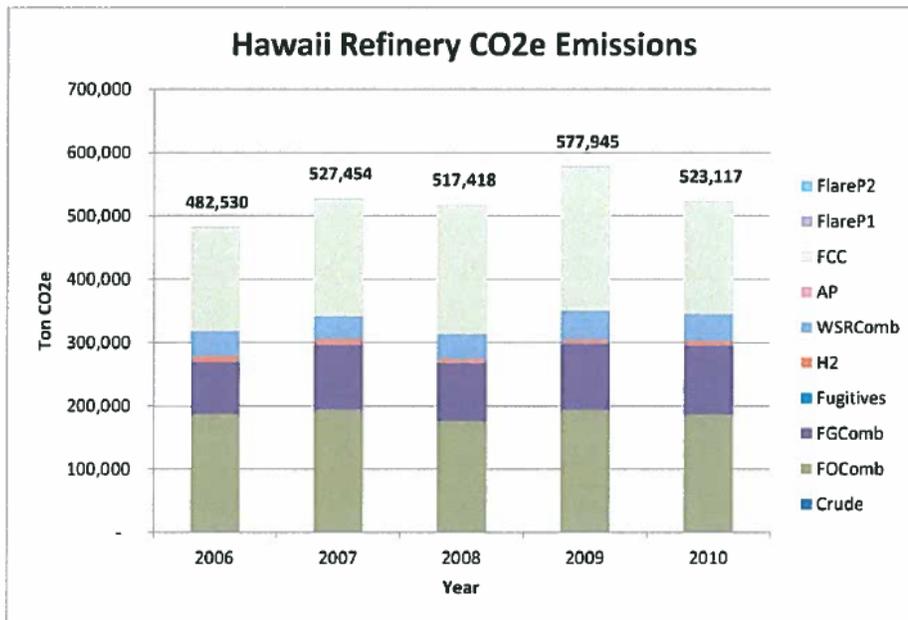
DOH must require that the facilities use the same baseline year: 2010. Both Par West and Par East choose the year in which their emission were the largest rather than the year that was most representative. DOH should reject the refineries attempts to play games with the baseline.

First, the refineries have provided no legitimate evidence that a ten percent reduction in greenhouse gas emission from 2010 levels is not attainable.

Second, their claims that 2010 is not a representative year are false. Par West (Makakole Street) has argued that 2009 is a better baseline year than 2010. It claims that it faced a shutdown in 2010, but provides no details as to how long its facility was shut down. It is not hard to understand why it picked 2009 as a “representative” year: It emitted ten percent more greenhouse gas in 2009 than in 2010. And in fact, the cap it proposes (577,945) is far greater than the amount emitted in 2010 (523,117).

Of the years 2006, 2007, 2008, 2009, and 2010, greenhouse gas emissions were the highest in 2009. The year 2009 is not representative at all.

Figure 1. 2006 – 2010 GHG Emissions and Unit Breakdown



Par East (Komohana Street) uses a completely different excuse to justify its refusal to use 2010 as the base year. It blames the recession – a recession that took place in 2008 and 2009. Its partner, Par West (Makakole Street), however, argues that 2009 is a representative year despite the recession. The two partners cannot take inconsistent positions. Given the recession’s lack of impact on Par West and DOH’s approval of the utilities’ various greenhouse gas emission plans using 2010 as a baseline despite the recession, Par East’s excuse for not using 2010 as a baseline makes zero sense and must be rejected. In addition, Par East fails to include any data that discloses what its emissions were in the years 2006, 2008, 2009, or 2010.

Finally, it is impossible to understand the partnering baseline in table 1 of the Par East plan. Where do these numbers come from and how do they relate to the Par West plan?

Given the mandatory duties identified in HRS §§ 342B-3 and 342B-72(a)(1), the obligations imposed by the public trust doctrine, and the legislature’s clear, expressed intent, it would be arbitrary and capricious for the health department to allow baselines that allow the two refineries to increase emissions. The health department may not refrain from controlling air pollution when it has the opportunity to do so.

The greenhouse gas emission reduction plans as proposed are inconsistent with the requirements of HAR § 11-60.1-204 and the legislative intent in enacting the Greenhouse Gas Emissions Act. If DOH were to approve the plans, its action would not only contravene HRS §§ 342B-3 and 342B-72, but would also breach its public trust duties.

Response to Comment A:

HAR Chapter 11-60.1, Air Pollution Control was amended on June 30, 2014, in accordance with Hawaii Act 234, 2007 that was enacted in Hawaii Revised Statutes (HRS) §342B-71 to 73 for regulating GHGs. The main requirements are set forth in HAR Subchapter 11, Greenhouse Gas Emissions that follows the core directives from Act 234 by proposing the following:

- 1) Adopting the statewide GHG emission limit of 1990 levels, or lower, by 2020;
- 2) Establishing the principle of seeking reductions that are the maximum practically and technically feasible and cost-effective; and
- 3) Requiring the reporting and verification of statewide GHG emissions to ensure compliance.

The purpose of Subchapter 11 is specified in HAR §11-60.1-201.¹ HAR Chapter 11-60.1 is available electronically at: http://health.hawaii.gov/cab/files/2014/07/HAR_11-60_1-typed.pdf.

Pursuant to HAR §11-60.1-204, the owner or operator may choose, as their alternative baseline year, the most recent representative year during the five-year period ending in 2010 if it can clearly be documented that 2010 was not representative of normal operations.²

Par West Refinery’s GHG Baseline

After further review, DOH-CAB does not agree with the justification provided by Par for using emissions from 2009 to establish the GHG emissions cap for the Par West Refinery.

Par claimed in its greenhouse gas emission reduction plan for the Par West Refinery that, “the 2010 calendar year does not meet the criteria of normal operation because there was extended unplanned shutdown of the fluid catalytic cracker (FCC) due to equipment malfunction and reduced complexity weighted barrels (CWB) throughput due to lower fuel market demands driven by poor economic conditions.” This is reflected in Table 2 below, provided as part of the Par West Refinery’s greenhouse gas emission reduction plan.

Table 2. Normal Operation Analyses Summary

Year	Direct Estimated GHG Emissions (tonnes)	Refinery Operation Impacted by Shutdowns	Refinery Throughput	CWB Throughput % of Mean (+/-6%)	Representative Year?
2010	523,117	Refinery Actual GHG emissions reduced due to an unplanned FCC shutdown	Refinery Actual GHG emissions reduced due to lower Refinery throughput	-8%	No
2009	577,945	No impact	No impact	-1%	Yes
2008	517,418	Planned Refinery turnaround (TA)	Not estimated due to impact from TA	-10%	No
2007	527,454	No impact	No impact	4%	Yes
2006	482,530	Refinery Actual GHG emissions reduced due to an unplanned Refinery-wide shutdown	No impact	-2%	No

IES Downstream, LLC (IES) transferred a portion of its refinery equipment to Par on December 18, 2018. The transfer involved a split in the total 2009 baseline GHG emissions of 577,945 metric tons³ (637,075 short tons). This ultimately resulted in a baseline of 348,273 metric tons (383,905 short tons) of CO₂e emissions for the Par West Refinery from equipment obtained by Par and 229,672 metric tons (253,170 short tons) of CO₂e emissions from equipment retained by IES after the equipment transfer. The 2009 GHG emissions split is shown in the following table:

¹ HAR §11-60.1-201. See Enclosure 1.

² HAR §11-60.1-204. See Enclosure 2.

³ There is an error in Figure 1 from the GHG emission reduction plan for the Par West Refinery on Page 2 in the Sierra Club of Hawaii’s comment. The vertical axis should refer to CO₂e in metric tons instead of short tons (Ton).

Calendar Year 2009 Baseline GHG Emission Split				
40 CFR Part 98	Unit	GHG Emissions (Metric Tons) (Short Tons)		
		Total Emissions	Par West Refinery	IES Facility
Subpart C	CatO _x Combustion	-----	-----	
	Fuel Gas Combustion	103,990	100,767	3,223
	WSR Combustion	44,986	44,986	-----
	Diesel Combustion	-----	-----	-----
	Fuel Oil Combustion	193,346	193,346	-----
Subpart P	Hydrogen Manufacturing	7,247	7,247	-----
Subpart Y	FCC Coke Combustion	226,349	-----	226,349
	Flare P1 (FCC/Sour)	1,017	1,017	-----
	Flare P2 (Crude/Sweet)	117	117	-----
	Acid Plant	485	485	-----
	Fugitive Venting (Columns)	363	308	55
	Loading Vent (Crude Receipts)	45	-----	45
¹ Total->		577,945 637,075	348,273 383,905	229,672 253,170

Upon further review, DOH-CAB has concerns with the justification provided by Par for not using 2010 as the baseline year for the Par West Refinery. As part of the justification to use 2009 as an alternate baseline year, Par stated that 2010 did not represent normal operations as there was an extended unplanned shutdown of the FCC due to equipment malfunction. However, the FCC was retained by IES after transferring a portion of its refinery to Par for the Par West Refinery. Therefore, emissions from the FCC are not part of the Par West facility's baseline. The 2009 emission split provided to DOH-CAB by Par also shows that the FCC unit emissions fall under IES and do not belong to the Par West Refinery. As such, DOH-CAB does not feel it is appropriate to use the FCC shutdown as a justification for using an alternate baseline year for the Par West Refinery. The following 2010 baseline emissions split (split between Par for equipment obtained and IES for equipment retained) was provided by Par as requested to address DOH-CAB's concerns⁴:

Calendar Year 2010 Baseline GHG Emission Split				
40 CFR Part 98	Unit	GHG Emissions (Metric tons) (Short Tons)		
		Total Emissions	Par West Refinery	IES Facility
Subpart C	CatO _x Combustion	-----	-----	
	Fuel Gas Combustion	108,645	107,098	1,547
	WSR Combustion	42,529	42,529	-----
	Diesel Combustion	-----	-----	-----
	Fuel Oil Combustion	186,197	186,197	-----
Subpart P	Hydrogen Manufacturing	7,025	7,025	-----
Subpart Y	FCC Coke Combustion	177,838	-----	177,838
	Flare P1 (FCC/Sour)	-----	-----	-----
	Flare P2 (Crude/Sweet)	8	8	-----
	Acid Plant	475	475	-----
	Fugitive Venting (Columns)	363	308	55
	Loading Vent (Crude Receipts)	37	-----	37
Total->		523,117 576,638	343,640 378,798	179,477 197,840

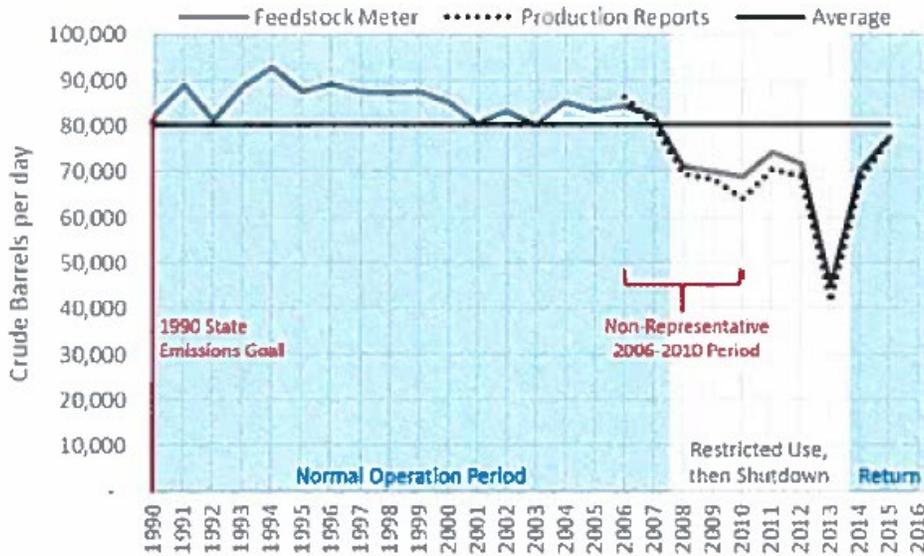
⁴ Additional information in emails from Par personnel on May 19, 2021 and June 16, 2021. See Enclosure 3.

Par East Refinery's GHG Baseline

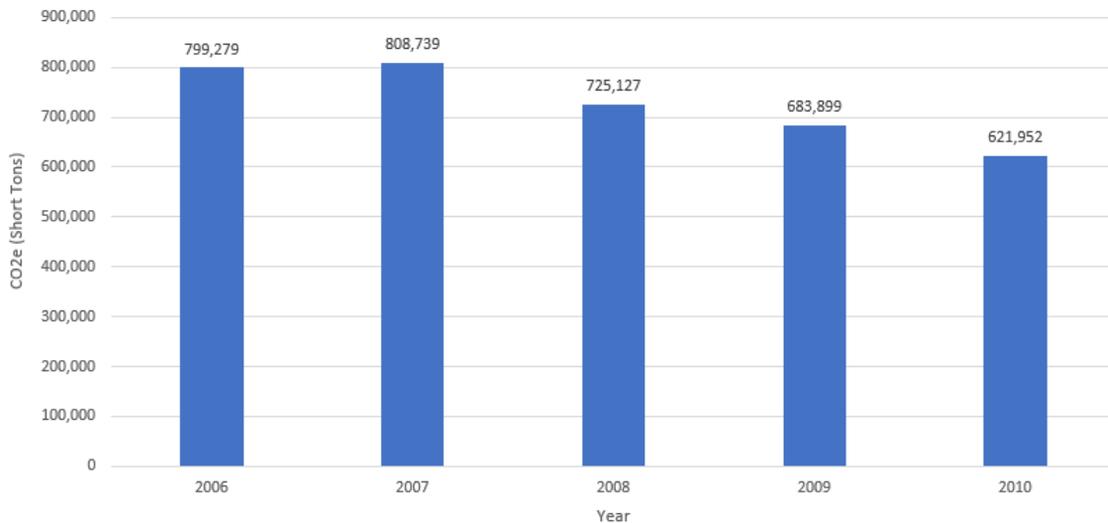
After further review, DOH-CAB agrees that 2010 is not representative of normal operations for establishing the GHG emissions cap for the Par East Refinery and has determined that 2007 is an acceptable alternate baseline year in accordance with HAR §11-60.1-204(d)(1).²

Par provided explanation for the Par East Refinery that, “because the refinery had a large-scale shut down during the refinery-wide turn-around beginning in July that year, 2010 is not representative of normal operations and is not a representative year for baseline emissions.” Par chose 2007 for the Par East Refinery as the most recent year that is representative of normal operations. For justification, Figure 1 below showing the Par East Refinery's crude processing rate history was included in the GHG emission reduction plan, depicting a stretch of restricted processing from years 2008 through 2010, that Par claimed was unrepresentative of normal operating conditions. The yearly CO₂e emissions from 2006 to 2010 for Par East are provided below Figure 1 in short tons.

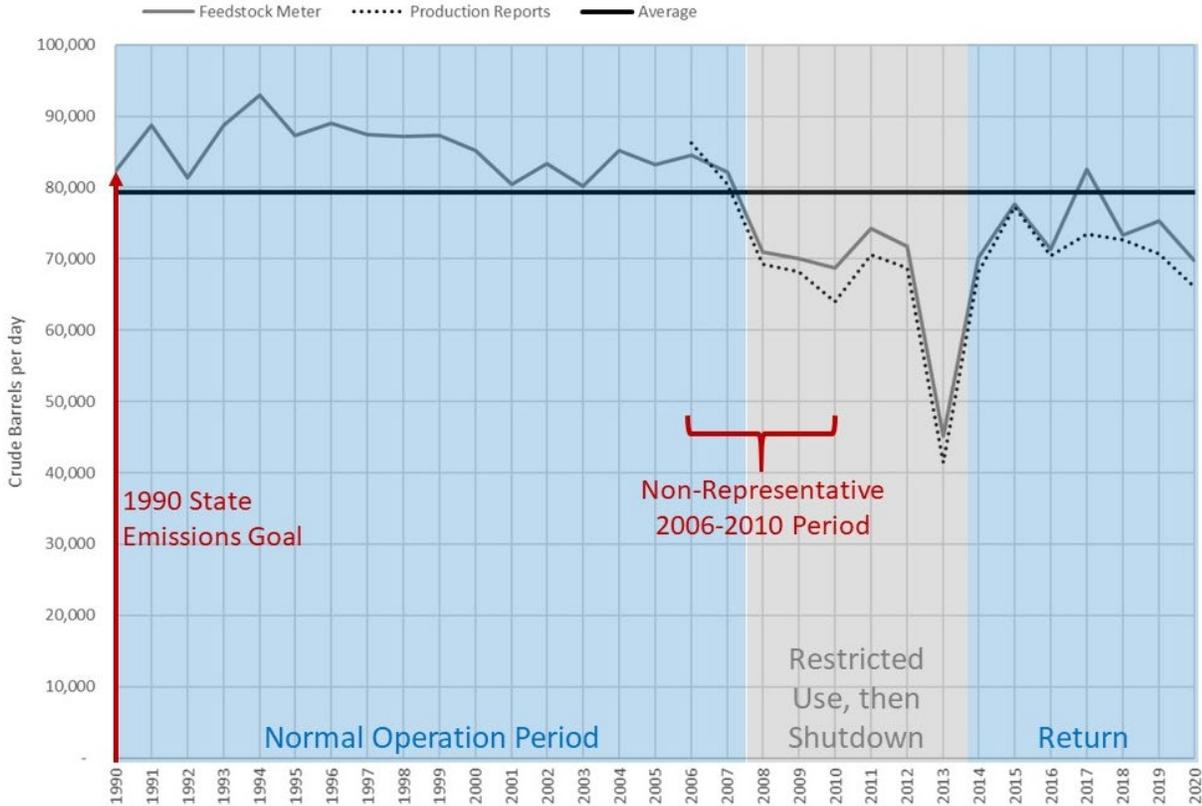
Figure 1- Crude Processing Rate History



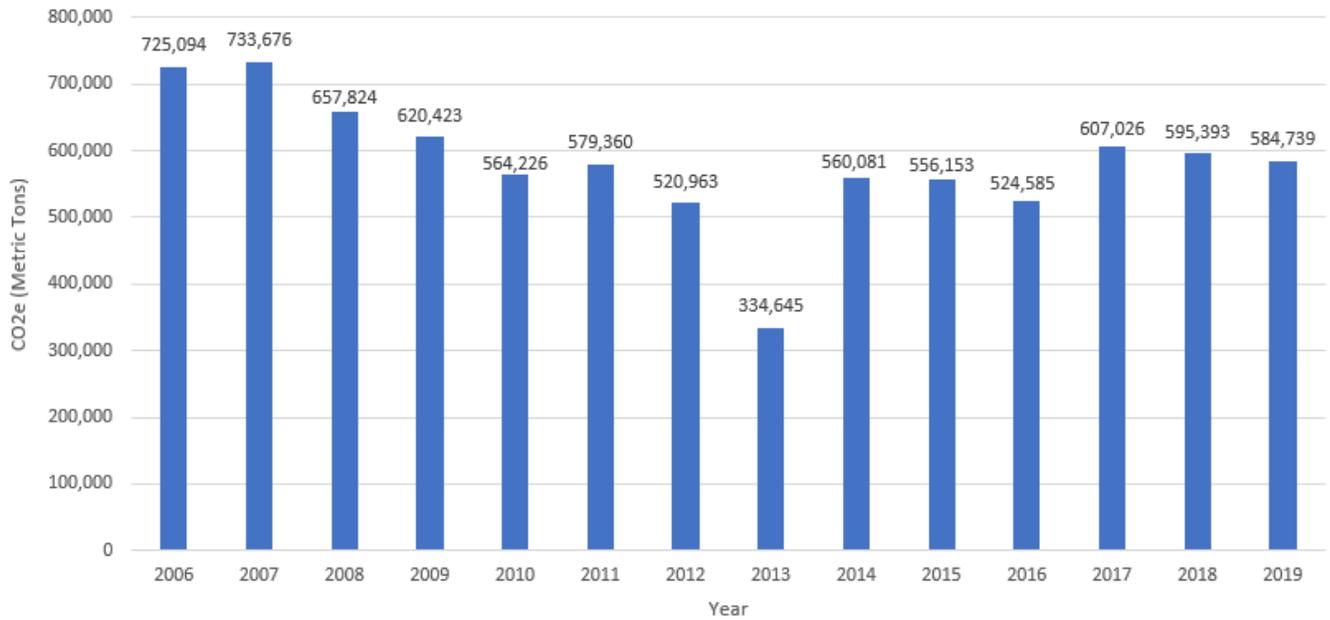
Par East Refinery
Short Tons of CO₂e Emissions Per Year



DOH-CAB requested additional information from Par to justify the selection of 2007 as a baseline year for establishing the GHG emissions cap for the Par East Refinery. The following figure was provided by Par for explaining why 2007 was selected as an alternative baseline year to 2010 and is compared with GHG emissions from 2006 to 2019 in metric tons:



Par East Refinery
Metric Tons of CO₂e Emissions Per Year



Comparing the yearly CO₂e emissions side-by-side with the crude barrels per day processing rate for the Par East Refinery provides a clear indication that 2007 is the most recent representative year of normal operation during the five-year period preceding 2010.² There is variability noticed between 2006 and 2007, but this is due to a variation in which fuel types were burned, and can happen any year.⁵ The types of fuels generated from different crudes need to be balanced with onsite energy needs, storage space, and logistics getting the products out.⁵ Less crude was processed in 2007 than 2006, but 2007 is the most recent year representative of normal operations, and therefore qualifies as a logical baseline year in accordance with the requirements of HAR §11-60.1-204.²

Par stated that in 2006 and 2007, the refinery had normal operation, operating under Tesoro.⁴ Par also stated that the “Great Recession in the United States” is recognized between December 2007 and June 2009, that took years to recover.⁴ As illustrated in the figure above on page 6, Par explained that the reduced crude processing rates at the refinery are observed from 2008 through the shutdown and sale of the facility in 2013.⁴ Par explained further that the duration of the refinery-wide turnaround (a large-scale outage that must occur approximately every four years) is about one month, and in 2010, began in mid-July.⁴ Par indicated that operation in 2011-2013, continued at a reduced rate through the shutdown of the facility in May 2013 for conversion to terminal operation.⁴ Par stated that the facility was restarted in September 2013 as a refinery under the name Hawaii Independent Energy, LLC, after acquisition at that same time.⁴ In January 2016, the name changed to Par Hawaii Refining, LLC.⁴

DOH-CAB Decision on Baseline and GHG Emission Caps

The CO₂e emission baselines provided in the following table, based on GHG emissions from 2009 for the Par West Refinery and 2007 for the Par East Refinery, were not used for establishing the GHG emission caps upon further review by DOH-CAB.

CO₂e Facility Emission Caps and Actual GHG Baseline (Before Public Comments)						
Plant	CSP Permit No.	Emissions (Short Tons)				% Reduction
		Baseline CO ₂ e	Baseline Biogenic CO ₂	Baseline CO ₂ e Less Biogenic CO ₂	CO ₂ e Cap	
		(a)	(b)	(c)=(a)-(b)	Proposed	
Par West Refinery	0088-01-C	383,905	0	383,905	322,480	16.0%
Par East Refinery	0212-01-C	808,739	0	808,739	679,341	16.0%
Combined Emissions ->		1,192,644	0	1,192,644	1,001,821	16.0%

The CO₂e emission baselines provided in the following table, based on GHG emissions from 2010 for Par West Refinery and 2007 for the Par East Refinery, represent DOH-CAB’s revised view subsequent to the public comment period. These numbers, based on additional information provided by Par for addressing comments on the draft permits, were used for establishing the GHG emission caps shown below and included in the final permits.

⁵ Additional information provided in February 22, 2021 email from Par personnel. See Enclosure 4.

CO ₂ e Facility Emission Caps and Actual GHG Baseline (After Public Comments)						
Plant	CSP Permit No.	Emissions (Short Tons)				% Reduction
		Baseline CO ₂ e	Baseline Biogenic CO ₂	Baseline CO ₂ e Less Biogenic CO ₂	CO ₂ e Cap	
		(a)	(b)	(c)=(a)-(b)	Revised	
Par West Refinery	0088-01-C	378,798	0	378,798	318,190	16.0%
Par East Refinery	0212-01-C	808,739	0	808,739	679,341	16.0%
Combined Emissions ->		1,187,537	0	1,187,537	997,531	16.0%

Although the Par East and Par West Refineries are partnering facilities, DOH-CAB notes that those refinery facilities were operated by completely different companies between 2006 and 2010. DOH-CAB further notes that the HAR does not require that two separate partnering facilities use the same baseline year. Here, where the facilities were operated by different companies during the baseline year and options and the circumstances applicable to selecting a baseline year are substantively different for each facility, DOH-CAB believes it is justified in establishing different years to serve as the baseline for each facility.

Draft permits were revised to incorporate GHG emissions caps using 2010 baseline emissions for the Par West Refinery and 2007 baseline emissions for the Par East Refinery. The caps do not allow an increase in GHG emissions. The resulting GHG emission caps significantly reduce maximum potential emissions as follows:

- a. Par East Refinery's cap reduces maximum yearly GHG emissions for this facility from 1,370,917 short tons to 679,341 short tons which is a fifty percent (50%) reduction.
- b. Par West Refinery's cap reduces maximum yearly GHG emissions for this facility from 545,300 short tons to 318,190 short tons which is a forty-two percent (42%) reduction.
- c. The total combined cap for the Par East and Par West Refineries reduces maximum combined yearly emissions for these facilities from 1,916,217 short tons to 997,531 short tons which is a forty-eight percent (48%) total combined reduction.

B. Blue Planet Foundation Comment:

Blue Planet Foundation objects to the draft permits for Par Hawaii Refining, LLC (Par), regarding the amendment of covered source permits Nos. 0212-01-C and 0088-01-C. Because the draft permits rely on inappropriate and inconsistent baseline years, Par will likely be allowed to pollute over 160,000 tons of climate-changing greenhouse gas (GHG) pollution additional annually – an equivalent to the pollution generated by over 35,000 cars on Hawaii's roads. We urge the Department of Health (DOH) to revise these permits by using more representative and shared baseline year for the Par facilities.

Par's GHG emission reduction plans suggest that Par is selecting alternative baseline years which afford them the ability to emit more greenhouse gas than the intended baseline year of 2010 (the reference baseline year specified in HAR 11-60.1-204(c), adopted pursuant to Act 234, 2007 Hawaii Session Laws, or what was known as the "Global Warming Solutions Act"). In addition, Par wishes to take advantage of the "partnering" provision in HAR 11-60.1-204(d)(6) and combine their two facilities into a single facility for purposes of achieving the 16% GHG reduction – yet they select different alternative baseline years for each facility. This contravenes the intent of allowing facilities to partner in their joint GHG reduction.

Par's alternative baseline years are not appropriate

It is clear that the alternative years selected by Par for each facility will allow far more GHG pollution than the intended baseline year of 2010.

Par selects 2009 as the alternative baseline year for its West facility, which happens to be the year of greatest GHG emissions during the period of 2006 to 2010 specified in HAR 11-60.1-204(d)(1). While Par claims that 2006, 2007, 2008, and 2010 are not representative years due to downtime and other disruptions, it is apparent that such downtime and disruptions are the norm in refinery operations, not "non-representative" anomalies. In addition, the Par claims that 2009 is more representative than the intended 2010 baseline in part "due to lower fuel market demands driven by poor economic conditions" in 2010. Yet Hawaii's economy grew by over \$2.5 billion in 2010 over 2009.

Par selects 2007 as the alternative baseline year for its East facility, which seems to be the year with the second highest GHG emissions for the five-year (2006 - 2010) period. While Par did not provide the Par East GHG emissions for each of those years, emissions can be approximated based on production levels provided with the assumption that GHG emissions are linearly related to crude throughput. Based on such an approximation, the Par East GHG emissions for 2008, 2009, and 2010 would be 14%, 17%, and 23%, respectively, lower than the 2007 emissions. The rationale offered by Par is that the "baseline year of 2007 is the most recent year which excludes the effects of the recession and the refinery-wide turn-around year of 2010." Interestingly, Par did not, however, follow this same rationale when it selected 2009 as the alternative baseline for its Par West facility.

The inconsistency in rationale calls into question the selection of the alternative baseline years for the facilities. In fact, the alternative baseline years selected would allow for a 2020 GHG cap that is higher than the actual emissions from certain years during the 2006 - 2010 period. This is clearly not what the legislature intended or what the emissions reduction rules envision.

Both facilities should be required to use 2010 as the baseline year, as referenced in HAR 11-60.1-204(d)(1).

The partnering facilities must select identical baseline years

Par seeks to take advantage of the "partnering" provision in HAR 11-60.1-204(d)(6) and combine their two facilities for purposes of achieving the GHG cap. Par, however, selects different alternative baseline years for each facility. If facilities are allowed to partner and act as a single facility to achieve the required 16% reduction in emissions, they must select the same baseline year. Allowing facilities to select inconsistent years defies common sense and abuses the privilege (and intent) of allowing facilities to partner in their joint GHG reduction.

The allowed GHG increase under these permits is substantial

By allowing Par to inconsistently "cherry pick" alternative years as the baseline for its two facilities, DOH will be allowing Par to emit substantially more GHG emissions than by requiring both facilities to use 2010 as their baseline year (as specified in HAR). Based on the above GHG emissions estimate for Par East and the actual GHG emissions for Par West, the emissions cap in the proposed permits would allow an additional 162,000 short tons of GHG compared with a more reasonable cap based on 2010 baseline emissions.

This amount-162,000 short tons-is a substantial difference in allowable emissions. It is equivalent to over 1 % of Hawai'i's GHG emissions statewide. Reducing that amount would be equivalent to taking about 36,800 cars off of Hawai'i roads (given average gasoline consumption per car in Hawai'i over the past decade).

Proposed permits are antithetical to the intent of Act 234

In passing Act 234, 2007 Hawai'i Session Laws, the legislature mandated that "the director shall prevent, control, and abate air pollution and the emission of air pollutants in the State." HRS § 342B-3. Furthermore, the legislature charged the director of the department of health to enact rules "[e]stablishing greenhouse gas emission limits applicable to sources or categories of sources, to be achieved by January 1, 2020, and establishing emission reduction measures to achieve the maximum practically and technically feasible and cost-effective reductions in greenhouse gas emissions in furtherance of achieving the statewide greenhouse gas emissions limit." HRS § 342B-72(a)(1).

The director does not have an option to allow emissions to increase. The GHG caps for both facilities must be based on the 2010 baseline year.

The GHG emission reduction plans as proposed are inconsistent with the requirements of HAR § 11-60.1-204 and the legislative intent in enacting the Global Warming Solutions Act. If DOH were to approve the plans, its action would not only contravene HRS §§ 342B-3 and 342B-72, but would also breach its public trust duties.

Response to Comment B:

In accordance with HAR §11-60.1-204, the owner or operator of regulated facilities are afforded the option to choose an alternative baseline year, if they can clearly document why calendar year 2010 is not representative of normal operations.² The HAR provides some options by which to suggest a more representative baseline year; the first of which is to suggest the most recent representative year during the five-year period ending in 2010.² Please refer to DOH-CAB's response to Comment A in Section II WRITTEN COMMENTS AND RESPONSES.

Par provided explanation and documentation in their greenhouse gas emission reduction plan for the Par West Refinery that, "the 2010 calendar year does not meet the criteria of normal operation because there was extended unplanned shutdown of the FCC Unit due to equipment malfunction and reduced CWB throughput due to lower fuel market demands driven by poor economic conditions." However, based on additional information and after further review, the DOH-CAB will use 2010 emissions to establish the GHG emission cap for the Par West Refinery. Please see DOH-CAB's response to Comment A in Section II WRITTEN COMMENTS AND RESPONSES.

Par provided explanation for its Par East Refinery that, "because the refinery had a large-scale shut down during the refinery-wide turn-around beginning in July that year, 2010 is not representative of normal operations and is not a representative year for baseline emissions." The Par East Refinery and equipment for the Par West Refinery were operated by completely different companies between 2006 and 2010, so it would be understandable that there would be different justifications for the baseline emissions year. Par provided additional information regarding its GHG emissions for addressing the comments received that is referenced in DOH-CAB's response to Comment A in Section II WRITTEN COMMENTS AND RESPONSES.⁴ Par chose 2007 for its Par East Refinery as its most recent year that is representative of normal operations.

Comparing yearly CO₂e emissions from the Par East Refinery side-by-side with their crude barrels per day processing rate provides a clear indication that 2007 is the most recent representative year of normal operation during the five-year period preceding 2010. There is variability to be noticed between 2006 and 2007, but this is due to a variation in which fuel types were burned, and can happen any year.⁵ The types of fuels generated from different crudes has to be balanced with onsite energy needs, storage space, and logistics getting the products out.⁵ Less crude was processed in 2007 than 2006, but 2007 is the most recent year representative of normal operations, and therefore qualifies as the logical baseline year. Additional information was provided to justify use of 2007 as an alternate baseline year for 2010. Please see DOH-CAB's response to Comment A in Section II WRITTEN COMMENTS AND RESPONSES.

The total combined GHG emissions for the Par West and Par East Refineries will be reduced by sixteen percent (16%) below the total combined individual baseline emission levels starting in calendar year 2020 and these individual and partnered GHG emission caps have been included in the Par East and Par West Refinery permit amendments being issued. Emissions from calendar year 2010 were used as the baseline to establish the revised Par West Refinery GHG emission cap. Emissions from calendar year 2007 were used as the baseline to establish the Par East Refinery GHG emission cap as initially proposed.

Although Par East and Par West Refineries are partnering facilities, the HAR does not state that two separate partnered facilities must use the same baseline year.² For instance, in this case where 2010 is used as the baseline year for the Par West Refinery GHG emission cap and 2007 is used as the base year for the Par East Refinery GHG emission cap, the sum of the baseline year emissions will be taken, and Par will be required to reduce the cumulative emissions from these facilities by at least sixteen percent (16%), as recorded in 2020 and every year thereafter. These facilities will not be allowed to increase GHG emissions. With regards to partnering, this is allowed in accordance with HAR §11-60.1-204(d)(6)(A)⁶ for all affected sources in meeting the GHG reduction requirements of HAR §11-60.1-204(c).² Please see DOH-CAB's response to Comment A in Section II WRITTEN COMMENTS AND RESPONSES.

HAR, Chapter 11-60.1, Air Pollution Control was amended on June 30, 2014 in accordance with Hawaii Act 234, 2007 that was enacted in HRS §342B-71 to 73 for regulating GHGs. The main requirements are set forth in HAR Subchapter 11, Greenhouse Gas Emissions that follows the core directives from Hawaii Act 234. Please see DOH-CAB's response to Comment A in Section II, WRITTEN COMMENTS AND RESPONSES.

Finally, it is important to note that GHG emission are being capped at 616,288 metric tons (679,341 short tons) per calendar year for the Par East Refinery and 288,657 metric tons (318,190 short tons) per calendar year for the Par West Refinery. This equates to a cumulative reduction in potential CO₂e emissions of 833,418 metric tons (918,686 short tons) per year which is a forty-eight percent (48%) reduction in maximum potential GHG emissions from these facilities. Again, the DOH-CAB is not allowing GHG emissions to increase. Please see DOH-CAB's response to Comment A in Section II WRITTEN COMMENTS AND RESPONSES.

⁶ HAR §11-60.1-204(d)(6)(A). See Enclosure 5.

C. Par Comment:

Par submitted letters dated January 25, 2021 requesting that the deadline for submitting their compliance certifications be extended from sixty (60) to ninety (90) days for Par East and Par West Refineries. Draft permit modifications for CSP Nos. 0212-01-C and 0088-01-C were prepared in accordance with applications Nos. 0212-57 and 0088-33 for incorporating GHG emission caps pursuant to Subchapter 11 of HAR Chapter 11-60.1. Attachment II-GHG, Special Condition E.3.b of the draft permits currently state that the compliance certification shall be submitted within sixty (60) days after the end of each calendar year. Par contends that since GHG baselines and the monitoring and recordkeeping portion of the permit (Section D) are based on the Environmental Protection Agency (EPA) methodologies specified in 40 CFR 98, the reporting to the state should be consistent with the EPA reporting timeframe of ninety (90) days.

Response to Comment C:

The DOH-CAB has reviewed Par's request and determined that the sixty (60) day submission deadline in Attachment II-GHG, Special Condition E.3.b of the draft permit modifications is appropriate. The GHG emission caps imposed by Subchapter 11 of HAR Chapter 11-60.1 are state enforceable requirements that are governed by state rules and requirements. It is justifiable that EPA's reporting and recordkeeping methodologies be adopted in state only requirements since standards for reporting performance metrics are an essential element when establishing enforceable goals. However, the sixty (60) day submission requirement for compliance certification is a long-standing state enforceable permit condition. As such, it has been time-tested and accepted as standard permit language. Compliance Certifications and the reporting of GHG emissions to EPA are completely different requirements. The DOH-CAB also notes that Attachment II-GHG, Special Condition E.3.c allows the compliance certification submission deadline to be extended where there is a justifiable need.

D. Par Comment:

Par requests that the draft permit modification requirement for completing and submitting the GHG mass rate on a semi-annual basis be modified to only require submittal of required monitoring data (fuel use, lab data, and similar). Par states that although HAR 11-60.1-90 (7)(I) requires semi-annual reporting of required monitoring data, there is no requirement to quantify and provide the GHG mass rate on a semi-annual basis. In addition, to the fact that a deviation for an annual permit limit is not determined within a semi-annual period, reporting requirement introduces significant unnecessary regulatory burden. Following the federal reporting rule, many calculations are not evenly split at the end of a semi-annual period, meaning the refinery would have to deviate from the regulatory methodology to complete a semi-annual calculation. In some cases, the total emissions of two semi-annual periods may not then equal the total emissions that would be reported to EPA. Inventory timing errors may occur and will have to be reconciled.

Response to Comment D:

The DOH-CAB has reviewed Par's request and as stated, HAR §11-60.1-90(7)(I) requires semi-annual reporting of monitoring data including deviations from permit requirements. However, the draft permit only requires GHG emissions be evaluated for compliance to the GHG emission limitations in Attachment II-GHG, Special Condition C.1 on a calendar year basis. As such, GHG emissions are required to be reported semi-annually to provide an interim measure of performance but no reporting of deviations are required in the first semi-annual reporting period since the permit does not contain a mid-year limit.

While it may seem that the semi-annual reporting requirement introduces significant and unnecessary regulatory burden, monitoring the GHG emissions on a semi-annual basis, as required by HAR §11-60.1-90(7)(I), does provide added value as an interim measure for determining the compliance status with respect to the calendar year permit emission limit. The DOH-CAB also notes that Attachment II-GHG, Special Condition E.4.d allows the submittal deadline to be extended, if reasonable justification exists for the extension.

- (1) waive the person's right to a contested case hearing pursuant to chapter 91, HRS;
- (2) waive any challenge to the citation;
- (3) pay the penalty assessed;
- (4) correct the violation; and
- (5) enter into the settlement agreement.

(c) The settlement agreement is not effective until it is signed by both the person to whom the citation was issued and by the director. Approval by the director shall be at the director's sole discretion.

(d) The director may withdraw the citation if the person to whom it is issued declines to accept the director's offer to settle or fails to satisfactorily meet any of the conditions set forth in §11-60.1-193(b), in which case the director may bring a formal administrative action under HRS, §342B-42 and pursue any remedies available under this chapter, HRS, chapter 342B, or any other law. [Eff and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14] (Auth: HRS §342B-42)

§11-60.1-194 Form of citation. A field citation issued pursuant to this section shall be in the form prescribed by the department. [Eff and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14] (Auth: HRS §342B-42)

SUBCHAPTER 11

GREENHOUSE GAS EMISSIONS

§11-60.1-201 Purpose. The purpose of this subchapter is to further implement the goals of Act 234, 2007 Hawaii Session Laws. A statewide greenhouse gas emission (GHG) limit, to be achieved by 2020, is set to equal or below the 1990 statewide greenhouse

gas emission levels. Greenhouse gas emissions from airplanes shall not be included. [Eff and comp 6/30/14] (Auth: HRS §§342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416) (Imp: HRS §§ 342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416)

§11-60.1-202 Definitions. As used in this subchapter:

“Carbon sink or carbon dioxide sink” means a carbon reservoir that removes a greenhouse gas or a precursor of a greenhouse gas or aerosol from the atmosphere, and is the opposite of a carbon source. The main sinks are the oceans and growing vegetation that absorb CO₂.

“Facility-wide GHG emissions cap” means a permit emissions limitation, applicable to a covered source, limiting the entire source’s annual non-biogenic greenhouse gas, and biogenic nitrous oxide and methane emissions. A facility-wide GHG emissions cap may also be defined in multiple covered source permits to identify partnering facilities with an approved combined GHG emissions cap as described in subparagraph 11-60.1-204(d)(6)(A).

“Municipal waste combustion operations” means a permitted covered source that combusts solid, liquid, or gasified household, commercial/retail, and/or institutional waste.

“On-the-Book” means control measures or operational practices affecting GHG emissions that the owner or operator of a facility plans, or is undertaking to implement because of regulatory or legal obligations; or as demonstrated through financial and resource commitments. Examples include required controls or practices mandated by a state or federal law; or budgeted and contracted/funded projects or resources.

“Permitted covered source” means a stationary source or facility issued or required to hold a covered source permit pursuant to this chapter, and

has begun construction or operation by the effective date of this subchapter. [Eff and comp 6/30/14] (Auth: HRS §§ 342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416) (Imp: HRS §§ 342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416)

§11-60.1-203 Greenhouse gas emission limit.

The statewide GHG emission limit to be achieved by 2020, is equal to or below 13.66 million metric tons (or 15.06 million tons) per year of CO₂e, based on Hawaii's 1990 GHG emission estimates prepared under Act 234, 2007 Hawaii Session Laws. The GHG limit excludes aviation and international bunker fuel emissions, and includes carbon sinks. The director may update the numerical GHG emission limit should improved methodologies and data become available for estimating emissions. The limit serves as an indicator to measure progress of the state's GHG reduction measures and to determine the achievement and maintenance of the state's GHG limit by 2020. [Eff and comp 6/30/14] (Auth: HRS §§ 342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416) (Imp: HRS §§ 342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416)

§11-60.1-204 Greenhouse gas emission reduction plan. (a) This section applies to an owner or operator of a permitted covered source, except for municipal waste combustion operations, with the potential to emit GHG emissions (biogenic plus non-biogenic) equal to or above 100,000 tons per year CO₂e. Each owner or operator of an affected source shall submit a GHG emission reduction plan for the director's approval within twelve (12) months of the effective date of this section. An owner or operator may submit a written request for an extension 30 days prior to the deadline.

(b) The GHG emission reduction plan will be used to evaluate and establish an annual facility-wide GHG

emissions cap for the affected source in support of achieving and maintaining the statewide GHG limit. The approved facility-wide GHG emissions cap and the associated provisions will be made a part of the covered source permit, and may be revised through the permit process to respond to new rules, updated technology, GHG reduction initiatives, and any other circumstances deemed necessary by the director to facilitate the state's GHG limit.

(c) Unless substantiated by the owner or operator of an affected source and approved by the director to be unattainable pursuant to the GHG control assessment described in subsection 11-60.1-204(d), each GHG emission reduction plan shall establish a minimum facility-wide GHG emissions cap in tons per year CO₂e, to be achieved by 2020 and maintained thereafter. The minimum facility-wide GHG emissions cap shall be sixteen percent (16%) below the facility's total baseline GHG emission levels less biogenic CO₂ emissions, as follows:

$$\text{Facility-wide cap} = (1 - 0.16) \times \left[\begin{array}{r} \text{Facility} \\ \text{Total} \\ \text{Baseline} \\ \text{Emissions} \end{array} - \begin{array}{r} \text{Facility} \\ \text{Baseline} \\ \text{Biogenic} \\ \text{CO}_2 \text{ Emissions} \end{array} \right] \text{ (tpy CO}_2\text{e)}$$

Where:

$$\text{Facility Total Baseline Emissions (tpy CO}_2\text{e)} = \text{Baseline}[\text{Biogenic CO}_2 + \text{Non-Biogenic GHG Emissions}]$$

Calendar year 2010 shall be used as the baseline year, unless the owner or operator can provide records for the director's approval demonstrating another year or an average of other years to be more representative of normal operations. Newly permitted sources without an operating history, shall estimate normal operations for the director's approval in establishing the facility-wide GHG emissions cap.

(d) The GHG emission reduction plan required of affected sources shall at a minimum include:

(1) The facility-wide baseline annual emission rate (tpy CO₂e). Calendar year 2010 annual emissions shall be used as the baseline emissions to calculate the required facility-wide GHG emissions cap, unless another baseline year or period is approved by the director. Baseline emissions shall be determined in accordance with section 11-60.1-115, separated between biogenic and non-biogenic emissions, and exclude all emissions of noncompliance with an applicable requirement or permit limit. The owner or operator shall include the data and calculations used to determine the baseline emissions. If calendar year 2010 is deemed unrepresentative of normal operations, then the owner or operator may propose an alternate baseline annual emission rate for the director's approval, as follows:

(A) The owner or operator shall clearly document why calendar year 2010 is not representative of normal operations and why the proposed alternate year or period is more suitable based on trends, existing equipment and controls, scheduled maintenance, operational practices, and any other relevant information. Acceptable methods for determining alternate facility-wide baseline annual emissions include:

- (i) the facility-wide GHG emissions (less biogenic CO₂) based on the most recent representative year during the five-year period ending 2010;
- (ii) average facility-wide GHG emissions (less biogenic CO₂) over any consecutive two-year period

- during the five-year period ending in 2010;
 - (iii) average facility-wide GHG emissions (less biogenic CO₂) for the five-year period ending in 2010; or
 - (iv) comparable methods as approved by the director. The director will not consider the use of periods greater than five years from 2010, except for extreme cases such as where an affected source may not have been fully operational for an extended period of time.
- (B) For newly permitted covered sources without a 2010 operating history, the owner or operator shall make the best estimate of normal operations based on contract agreements, available operational records, required scheduled maintenance, market forecast, or any other information for projecting the affected source emissions. Potential emissions shall not be used, unless the owner or operator can clearly demonstrate that the facility will be continually operating at the maximum capacity for each and every year.

The owner or operator shall provide all supporting documentation for the proposed alternate baseline emission rate. The director, based on available information, may reject and modify the baseline emission rate in establishing the final facility-wide GHG emissions cap.

- (2) The 2020 facility-wide GHG emissions cap. Determine the facility-wide GHG emissions cap in accordance with subsection(c), using calendar year 2010 or the proposed GHG baseline emission rate determined by paragraph (1) above. If the required

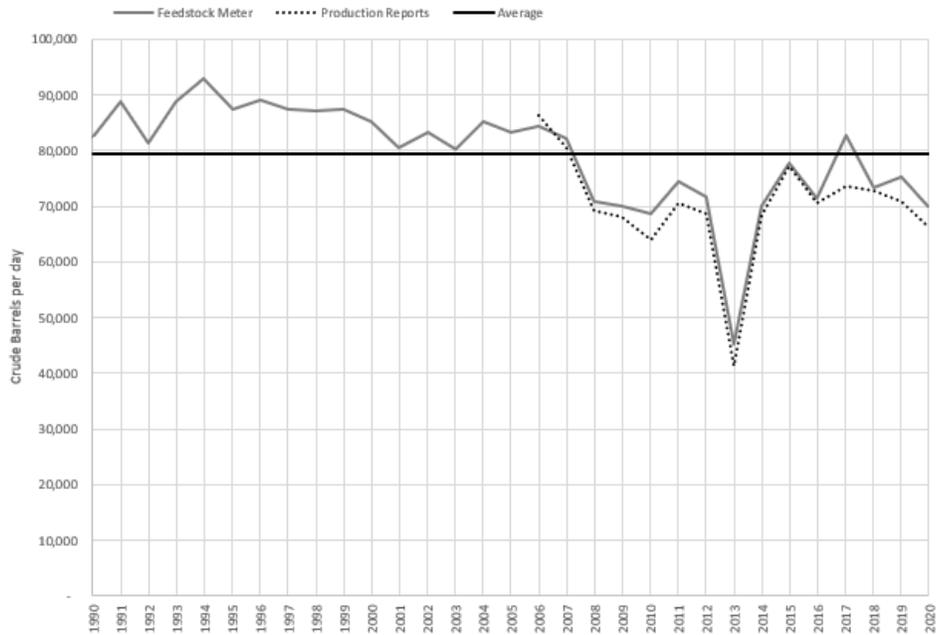
Request 1 (Par East):

“The GHG emission reduction plan for Par East indicates 2007 is the most recent year within the period from 2006 to 2010 which excludes the effects of the recession and refinery-wide turn-around. Figure 1 in the plan also references restricted use and shutdown events within the 2008 to 2013 time frame. You indicated that these events were associated with plans to sell the refinery. Please provide a year by year explanation on what was happening at the Par East facility from operating years 2006 to 2014. Include dates and the duration of the recession, large-scale shutdown, and refinery-wide turnaround. Indicate date(s) when the refinery was sold and companies involved with the sale. Also explain how these events or other circumstances affected emissions and the crude processing rate history.”

Response:

Crude processing rate (the amount of total feed refined onsite) is the fundamental measure of how much a facility operated. GHG emissions are generated from processing the crude and, thus, inherently linked. In 2006 and 2007, the refinery had normal operation, operating under Tesoro. The “Great Recession in the United States” is recognized between December 2007 and June 2009, and is noted that it took years to recover¹. As illustrated in the figure below, reduced crude processing rates at the refinery were observed from 2008 through the shutdown and sale of the facility in 2013. The duration of the refinery-wide turnaround (a large-scale outage that must occur approximately every 4 years) is about one month, and in 2010, began in mid-July. Operation in 2011-2013, all after the acceptable period outlined in HAR §11-60.1-204(d)(1)(a), continued at reduced rates through the shutdown of the facility in May 2013 for conversion to terminal operation. In September 2013, the facility was restarted as a refinery under the name Hawaii Independent Energy, LLC, after acquisition at that same time. In January 2016, the name changed to Par Hawaii Refining, LLC.

¹ https://en.wikipedia.org/wiki/Great_Recession_in_the_United_States



Request 2 (Par East): “Explain why the GHG emission numbers reported during review of the GHG reduction plan are different than those in EPA’s FLIGHT application for the Par East facility.”

Response: Differences between FLIGHT and the State emissions are insignificant (<0.2%) and due to a combination of reasons.

In initial years’ reporting, values for various GHG streams were reported to EPA rounded to appropriate significant digits as regulatory guidance best reporting practice. Values vary (in the insignificant digits) between when rounding is or is not performed. In more recent years’ EPA reports - in the calculations for the full history of GHGs for the state- the rounding practice was not use, in order to facilitate data validation, which the state completed with vigor.

Additionally, there are some minor actual differences between the federal emission calculations and the state calculations. The state includes propane emissions from fuel gas combustion in the Hydrogen Generation Unit, which are specifically required to be excluded from EPA/FLIGHT emissions. Finally, there were some corrections identified during the thorough review process by the state, which have been included in the calculations for the GHGERP, such as minor emissions from vapors in our wastewater treatment unit, which were added to later federal reports, as well as a similarly insignificant Carbon Content correction for recycled hydrogen.

Year	Metric Tons CO2e in State Calculations	Metric Tons CO2e in EPA's FLIGHT tool	Difference
2010	564,226	564,190	0.01%
2011	579,360	578,300	0.18%
2012	520,963	520,936	0.01%
2013	334,645	334,780	-0.04%
2014	560,081	560,170	-0.02%

It should also be noted that for the development of the GHG Emission Reduction Plan (GHGERP), as in FLIGHT, all emissions are using the updated Global Warming Potentials (those current in federal regulation), for consistency and more direct comparison (vs as initially reported under the previous version of the rule).

Request 3 (Par West): “In addition, we are concerned with documentation provided for not using 2010 as the baseline year to establish the GHG emissions cap for the Par West facility. As part of the justification, it was indicated that 2010 did not represent normal operations because there was an unplanned shutdown of the fluid catalytic cracker (FCC). However, the FCC was retained by IES Downstream, LLC (IES) after transferring a portion of its refinery to Par Hawaii Refining, LLC (Par) for the Par West facility. Therefore, emissions from the FCC are not part of the Par West facility’s baseline. Since the FCC is not part of the baseline, we do not feel that the shutdown of this unit is a valid reason for excluding 2010 as a baseline and choosing 2009 emissions to establish the cap for the Par West facility instead. We, therefore, request you to provide the split in the 2010 baseline GHG emissions for equipment obtained by Par and other equipment retained by IES after the equipment transfer.”

Response:

Attached is a calculation of the estimated split for 2010 based on equipment, similar to that which had been provided and reviewed for 2009, to allocate all GHG emissions between two new permit holders, Par West and IES. However, until December 2018, the Par West & IES facilities were a singular, integrated facility, which had to undergo physical changes before they could be operated mostly independently. The equipment operated under one permit and as one facility in the alternate baseline year assessment period (five-year period ending 2010) used to evaluate and propose a more suitable year “representative of normal operations”, as described in the HAR. Pre-2018 split, a singular year for the single facility is the only representative option to establish a facility-wide baseline. As a single facility, the FCC Unit was an integral part of the refinery and the FCC could not operate independently of the equipment that was sold to Par. The FCC shutdown in 2010 would have also affected the use of the rest of the equipment in the refinery, including the equipment purchased by Par. It is technically justified that 2009 remains the best representative year for Par West and normal operations of the refinery as-a whole.

The split of baseline emissions between Par West and IES was only performed for the purpose of allocating the defensible baseline between two permits after the partial sale. The 2009 data was thoroughly vetted by the Department, and any change in the well-assessed baseline year would be material and may lead to further delay for formal revision, additional public comment, and adoption. Year 2009 is most representative of normal operations of the refinery as-a-whole in the 5-year period ending 2010, as described in HAR.

		Total Emissions (tonnes)	Par Topping Plant (tonnes)	IES Facility (tonnes)	Total Emissions (tonnes)	Par Topping Plant (tonnes)	IES Facility (tonnes)	
		2010	2010	2010	2009	2009	2009	
Subpart C	CatOx Combustion	-	-	-	-	-	-	0.01424 % FG FCC used
	Fuel Gas Combustion	108,645	107,098	1,547	103,990	100,767	3,223	
	WSR Combustion	42,529	42,529	-	44,986	44,986	-	
	Diesel Combustion	-	-	-	-	-	-	
	Fuel Oil Combustion	186,197	186,197	-	193,346	193,346	-	
	Total Subpart C	337,371	335,824	1,547	342,322	339,099	3,223	
Subpart P	Hydrogen Mfg	7,025	7,025	-	7,247	7,247	-	
Subpart Y	FCC Coke Combustion	177,838	-	177,838	226,349	-	226,349	
	Flare P1	-	-	-	1,017	1,017	-	
	Flare P2 (Crude/Sweet)	8	8	-	117	117	-	
	Acid Plant	475	475	-	485	485	-	
	Fugitive Venting (Columns)	363	308	55	363	308	55	
	Loading Vent (Crude Receipts)	37	-	37	45	-	45	
	Total Subpart Y	178,721	791	177,930	228,376	1,927	226,449	
Total Direct CO2e (tonnes)		523,117	343,640	179,477	577,945	348,273	229,672	
		523,117			577,945			
CAP at 16% Reduction		439,418	288,657	150,761	485,474	292,549	192,924	
metric tons required		83,699	54,982	28,716	92,471	55,724	36,748	

Numbers in the table above were updated in an email from Par personnel on June 16, 2021. Information on pages 1 through 4 are based on that in an email from Par personnel on May 19, 2021.

Madsen, Michael A

To: Widlansky, Benton
Subject: RE: GHG Emissions for Par East Refinery

From: Widlansky, Benton [REDACTED]
Sent: Monday, February 22, 2021 3:42 PM
To: Madsen, Michael A [REDACTED]
Cc: Erickson, Colin [REDACTED]; Hamamoto, Dale [REDACTED]; Metrose, Theodore K [REDACTED]
Subject: [EXTERNAL] RE: GHG Emissions for Par East Refinery

Hi Mike,

The spreadsheets that were attached all look to be the current (revised in 2018), and the crude processing rate history still holds as well. It is also correct that 2007 had a bit higher emission rate than 2006, though crude processing was less.

There is variability and both years would be allowable under the rule. The differences between 2006 and 2007 were a result of variation in which fuel types were burned, and can happen any year. The type of fuel used onsite depends on the fuel balance which is the result of the various properties of different crude types. The types of fuels generated from different crudes has to be balanced with onsite energy needs, storage space, and logistics getting the products out.

Thanks and please let me know if you have any other questions,

Benton Widlansky

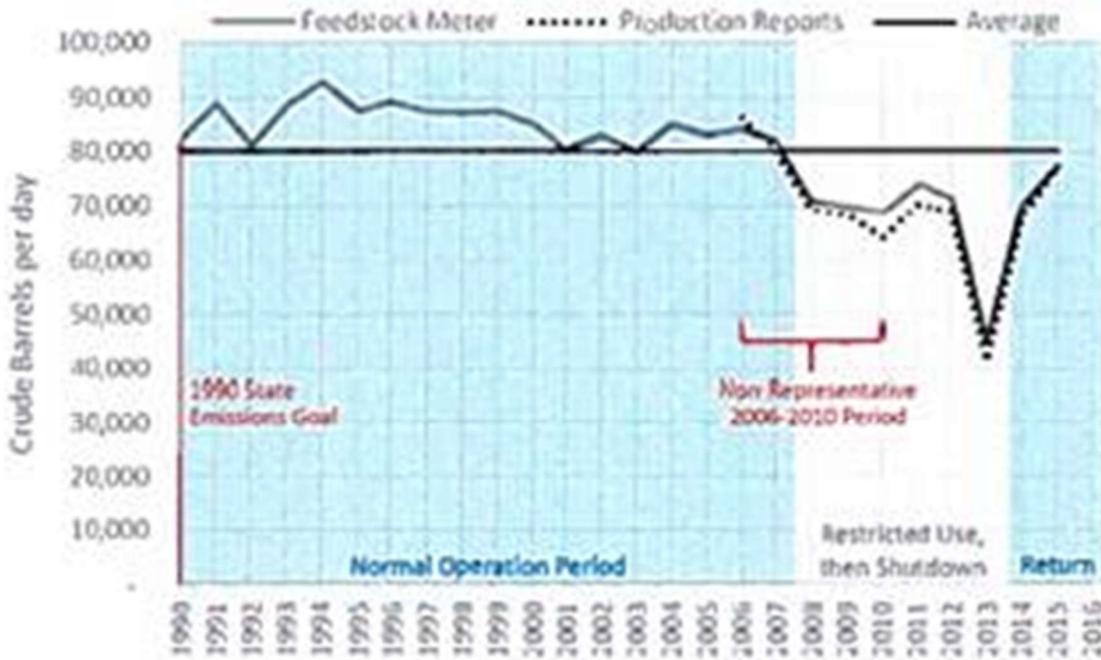
Environmental Manager | Par Hawaii Refining
91-325 Komohana Street | Kapolei, Hawaii 96707

From: Madsen, Michael A [REDACTED]
Sent: Friday, February 19, 2021 10:35 AM
To: Widlansky, Benton <[REDACTED]>
Cc: Erickson, Colin [REDACTED] <[REDACTED]>; Hamamoto, Dale [REDACTED] <[REDACTED]>
Subject: GHG Emissions for Par East Refinery

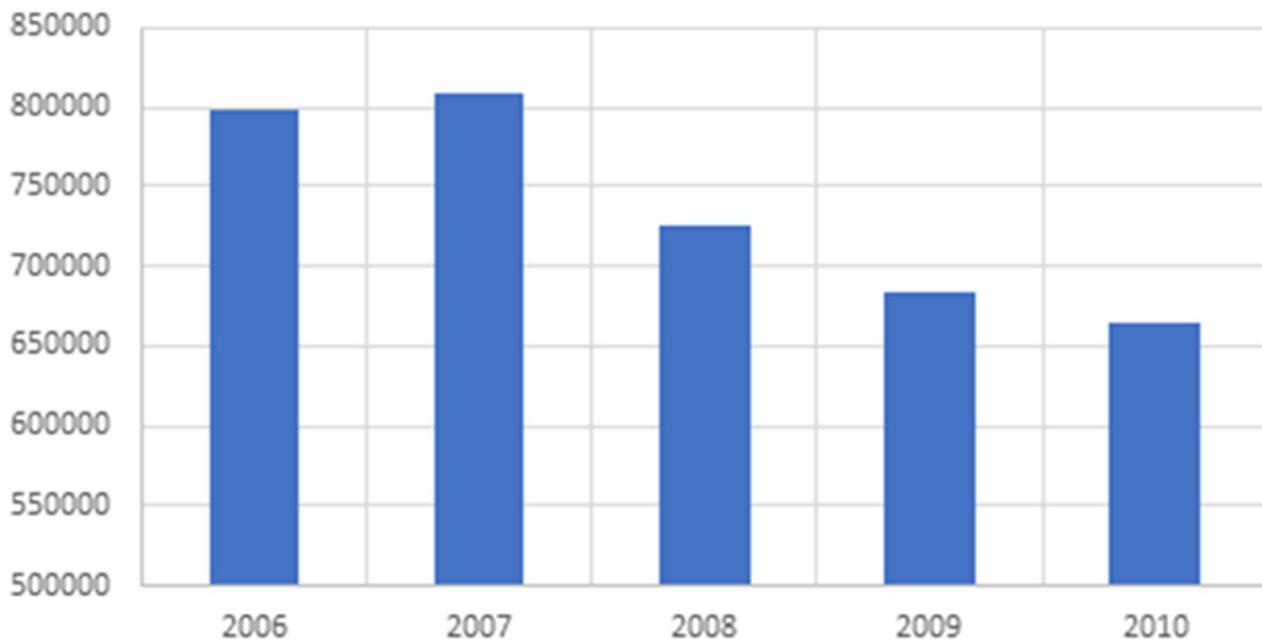
Hi Benton,

We are responding to public comments on significant permit modifications to incorporate GHG emission caps for the Par East and West Refineries. In preparing our responses to the comments, we noted that Par East did actually have higher CO₂e emissions in 2007 than 2006, while Par East's barrels of crude processed per day was higher in 2006 than 2007. Can you please provide us with an explanation as to why CO₂e emissions were higher in 2007 than 2006? You would think that the emissions would be higher in 2006 because the crude processed per day in 2006 was higher. Also, the graph of GHG emissions from 2006 to 2010 below was prepared using the attached information. Are these the most current emission estimates for the Par East Refinery?

Figure 1- Crude Processing Rate History



Updated Short Tons of CO₂e per Year



Thanks,

Mike

- (E) Environmental impacts (other media and the emissions of other regulated air pollutants);
- (F) Any secondary emissions or impacts resulting from the production or acquisition of the control measure; and
- (G) Economic impact (cost effectiveness: annualized control cost, dollar/megawatt-hr, dollar/ton CO₂e removed, and incremental cost effectiveness between the control and status quo).

For committed or required on-the-books control measures and any other GHG control initiatives, identify at a minimum, items (A) through (C) above. Considering the energy, environmental, and economic impact, determine the GHG control or suite of controls found to be feasible in achieving the maximum degree of GHG reductions for the facility. Determine whether the required GHG emissions cap, pursuant to subsection (c) will be met. If an alternate cap must be proposed for approval, declare the proposed percentage GHG reduction and the alternate GHG reduction cap. Provide the justification and associated support information (e.g., references, assumptions, vendor quotes, sample calculations, etc.) to substantiate the control analysis and alternate GHG emissions cap.

- (6) The proposed Control Strategy. Present the listing of control measures to be used for implementation in meeting the required or proposed alternate 2020 facility-wide GHG emissions cap. Include discussion of the control effectiveness, control implementation schedule, and the overall expected GHG CO₂e emission reductions (tpy) for the entire facility. Owners or operators shall also consider the following:

- (A) Affected sources may propose to combine their facility-wide GHG emissions caps to leverage emission reductions among partnering facilities in meeting the combined GHG emissions caps. If approved by the director, each partnering facility will be responsible for complying with its own adjusted GHG facility-wide emissions cap.
- (B) Except for fee assessments and determining applicability to this section, biogenic CO₂ emissions will not be included when determining compliance with the facility-wide emissions cap until further guidance can be provided by EPA, or the director, through rulemaking.
- (C) The approved facility-wide GHG emissions cap and the associated monitoring, recordkeeping, and reporting provisions will be made a part of the covered source permit, enforceable by the director.

(e) Failure to submit an adequate GHG emission reduction plan, or failure to submit relevant facts or correct information upon becoming aware of such failure, constitutes a violation of this chapter. The owner or operator of an affected source has the same duty to certify the GHG emission reduction plan in accordance with section 11-60.1-4, and supplement or correct the GHG emission reduction plan, similar to the provisions in section 11-60.1-84 for covered source permit applications. During the processing of a GHG emission reduction plan, if the director determines that a re-submittal of the plan is required, or submittal of additional information is necessary to evaluate or take final action on the plan, the director may make the request in writing and set a reasonable deadline for the response.

(f) If the owner or operator of an affected source fails to submit an adequate GHG emission reduction plan, or if a facility-wide GHG emissions