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BEFORE THE ADMINISTRATOR

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

**PRESERVE PEPE'EKEO HEALTH &
ENVIRONMENT,**

Petitioner,

v.

**GINE MCCARTHY, ADMINISTRATOR,
United States Environmental Protection Agency,**

Respondent.

) Application for Initial Permit No. 0724-01

) Covered Source Permit No. 0724-01-C

) Revisions Dated

I. Introduction

Pursuant to Section 505(b)(2) of the Clean Air Act ("CAA" or "Act"), 40 C.F.R. § 70.8(d), and applicable Federal and State regulations, Preserve Pepe'ekeo Health & Environment ("Petitioner" or "PPHE") hereby petitions the Administrator of the U.S. Environmental Protection Agency ("EPA") to object to the Final Covered Source Permit No. 0724-01-C ("Permit"), the Authority to Construct, Permit to Operate and Title V operating permit issued by the Environmental Management Division of the Clean Air Branch ("CAB"), Hawai'i Department of Health ("HDOH") for the 21.5 megawatt (MW) Hu Honua Bioenergy Facility ("Hu Honua") proposed in Pepe'ekeo, Hawai'i.

1 All major stationary sources of air pollution and certain other sources are required to apply for
2 permits to construct and to operate, consolidated as Title V operating permits that include emission
3 limitations and other conditions necessary to assure compliance with applicable requirements of the Act.
4 CAA §§ 502(a), and 504(a), 42 U.S.C. §§ 7661a(a) and 7661c(a). The Title V program does not
5 generally impose new substantive air quality control requirements, but is intended to comprehensively
6 assure compliance with and enforceability of substantive requirements found elsewhere in the Act. 57
7 Fed Reg. 32250, 32251 (July 21, 1992). As such, the permit must contain sufficiently detailed
8 monitoring, record keeping, reporting and other requirements to ensure compliance with applicable
9 requirements. *Id.* Under 40 C.F.R. § 70.1(b), “[a]ll sources subject to [the Title V regulations] shall
10 have a permit to operate that *assures compliance* by the source will all applicable requirements”
11 (emphasis added). The program is designed to “enable the source, States, EPA *and the public* to
12 understand better requirements to which the source is subject, and whether the source is meeting those
13 requirements. 57 Fed Reg. 32250, 32251 (July 21, 1992) (emphasis added). EPA explains that the Title
14 V operating permit program is “*a vehicle for ensuring* that air quality control requirements are
15 appropriately applied to facility emissions *and for assuring* compliance with such requirements.” *Order*
16 *Granting in Part and Denying in Part Petition for Objection to Permit* for Petition No. IX-2011-1 p. 2
17 (emphasis added) (“Hu Honua Order”).

18 As detailed below, the Permit fails to assure compliance with the Act and conflicts with the letter
19 and spirit of the Title V program. The Permit suffers from the various legal deficiencies, including
20 various failures to comply with EPA’s Hu Honua Order. Because the Permit is not in compliance with
21 applicable requirements, the EPA is under a duty to object to this Permit, and should direct that this
22 project undergo Title V permitting process as a Major Source. 40 C.F.R. § 70.8(c)(1); *see also* 42
23 U.S.C. § 7661d(b)(1) and *New York Public Interest Research Group, Inc. (NYPIRG) v. Whitman*, 321
24 F.3d 316; 333 n.11 (2nd Cir. 2003). Petitioners request the Administrator of the EPA object to the Permit
25 on each of the specific objections detailed below, and order HDOH to commence permitting processes
26 for Hu Honua as a Major Source.
27
28

1 **II. Background**

2
3 Petitioner PPHE is an organization dedicated to preserving the environment from the air quality
4 threat posed by Hu Honua’s proposed facility, and ensuring that energy production is truly sustainable
5 and does not disproportionately increase air pollution when compared to alternative sources and
6 unnecessarily expose community to hazardous concentrations of air pollution. Its members include
7 residents of Pepe’ekeo who are deeply concerned that deficiencies in the Title V operating permit for the
8 Hu Honua facility fails to ensure compliance with requirements of the CAA or the State’s permitting
9 program. PPHE is concerned that emissions from the facility under the existing Permit will adversely
10 and disproportionately impact air quality in Pepe’ekeo, unnecessarily endangering the health, safety and
11 welfare of nearby communities. A primary concern, previously articulated by EPA in comment letters
12 to the proposed draft permit, is that the unsubstantiated emission factors relied on to calculate the
13 source’s Potential to Emit “(PTE)” will prove to be unattainable, which will cause dangerous pulses of
14 air pollutants over a short time horizon that will cause adverse impacts, including health effects, to the
15 community surrounding the Hu Honua facility.

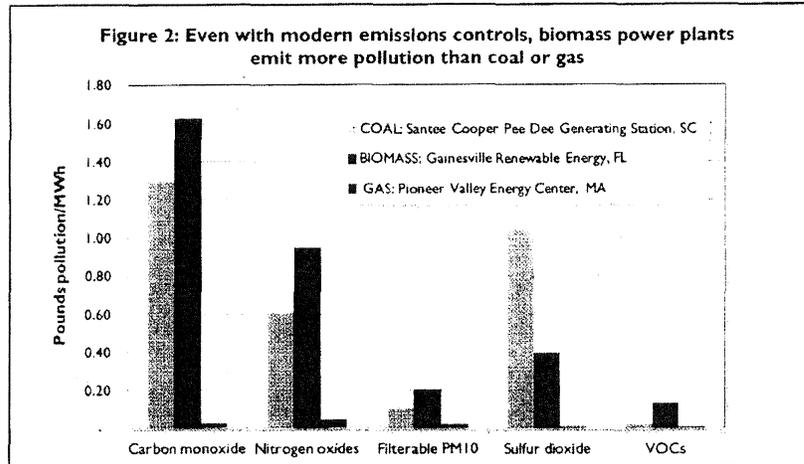
16 On August 8, 2009, Hu Honua submitted an application for a new covered source permit to
17 HDOH to re-start operations at the facility, which had previously ceased operations in December, 2004.
18 On August 13, 2010, HDOH released a Draft Permit for public comment. On December 27, 2010, Hu
19 Honua submitted a revised application to HDOH. On February 17, 2011, HDOH released a Revised
20 Draft Permit for a second round of public comments. After the end of the second round of public
21 comment period on March 21, 2011, HDOH made significant changes to the Revised Draft Permit
22 before submitting the Proposed Permit to EPA on May 19, 2011. The EPA’s 45-day review period on
23 the Proposed Permit ended on July 5, 2011. During the 45-day period, EPA did not object to the
24 Proposed Permit, but Region XI’s Chief Permits Officer in the Air Division, Gerardo Rios, did send a
25 letter to HDOH with substantial comments and suggested revisions on June 30, 2011 (“6/30/11 Letter”).
26 On August 26, 2011, within the 60-day window following the end of EPA’s 45-day review period,
27 Preserve Pepe’ekeo Health and Environment filed a petition to then-EPA Administrator Jackson to
28 object to the Permit. On August 31, 2011, HDOH issued the Final Permit and the Final Permit Review
Summary, which included Addendum A and Addendum B responding to public and EPA comments
respectively. On September 1, 2011, HDOH announced on its website that the Final Permit had been

1 issued. On February 17, 2014 EPA issued the Order, to which HDOH responded on April 15, 2014 with
2 a series of amendments to the Permit. According to the best information available to PPHE,
3 construction of the Hu Honua facility has not been completed due to a series of legal, organizational and
4 financial obstacles.

5
6 Contrary to industry puffery that biomass is “clean and green”, in fact emissions from biomass
7 plants substantially exceed, per megawatt of electricity generated, those from the fossil fueled plants for
8 all pollutants except sulfur dioxide, for which biomass emissions exceed gas, but not coal (see Figure 2
9 below). “Trash, Trees and Toxics: How Biomass Energy has Become the New Coal,” Mary Booth,
10 PhD, Partnership for Policy Integrity p. 26 (April 2, 2014) (“PFPI Report”). Biomass power plants are
11 notorious for producing *intense pulses of air pollution over short time horizons* because the fuels they
12 burn are highly variable and inconsistent in composition and moisture content, which decreases
13 combustion efficiency, confounds the functions and effectiveness of air pollution control equipment as
14 compared to uniform fuels for which steady state operations are more easily achieved and maintained,
15 and consequently, increases emissions. *Id.* The pollutant emitted in greatest quantities from biomass
16 plants like Hu Honua is carbon monoxide (“CO”). CO emissions from a facility like Hu Honua are well
17 above levels typical for comparably sized fossil fuel-fired facilities. *Id.*

18
19 Typical air pollution control strategies for reducing CO emissions include adding more oxygen
20 to the combustion process. However, doing so increases the formation of “thermal” oxides of nitrogen
21 (“NOx”), making it more difficult to remain within NOx emission limits. *Id.* p. 28. The relationship
22 between CO emission limitation strategies and commensurate increases in NOx emissions makes the
23 enforceability of CO and NOx emissions limits critical to assuring compliance with the Act. Practical
24 enforceability in the Title V context requires thorough review and complete information about every
25 component related to CO and NOx emissions and a rigorous analysis into whether base emissions and
26 emissions limitations assumptions are realistic and supported by practice in the field with comparable
27 facilities, fuel sources, and air pollution control equipment.

28
29 This feature of biofueled power plants as compared to those powered by other fuel sources is
30 demonstrated in Figure 2, below, from the aforementioned PFPI Report.



III. Petition Summary

Below, Petitioners demonstrate that: i) HDOH failed provide adequate opportunities for public involvement; ii) the permit violates 40 C.F.R 70.7(a)(5); iii) various permit provisions are not federally enforceable (or enforceable as a practical matter); iv) the PTE figures are unjustified; v) HDOH failed to provide adequate reasoning and support for it decisions; and vi) that the permit is deficient in various other ways. Each and every claim raised below is proper in a Title V permit petition and is responsive to HDOH's reasoning (including response to comments).

This petition is timely filed within sixty days following the end of U.S. EPA's 45-day review period as required by Clean Air Act § 505(b)(2) and 40 C.F.R. § 70.8 (d). In compliance with section 505(b)(2) of the Act, 42 U.S.C. § 7661d(b)(2), this petition is based on objections to the various iterations of the proposed permit that were raised with reasonable specificity during the public comment period provided by the Act or on issues that could not have been raised previously.

IV. The HDOH has Failed to Fulfil Public Participation Requirements of The Act, Title V Regulations & State Law, Reflecting a Pattern and Practice that Materially Prejudices Public Participation in Title V Actions

HDOH has proven unwilling or unable to adequately involve the public in these proceedings, and based on PPHE's counsel's attempts to gain access to information and secure timely notice of pending

1 actions concerning the Hu Honua facility, it is PPHE's contention that HDOH is committed to avoid
2 disclosing information necessary to facilitate meaningful public participation in this process.

3
4 1. Role of Public Participation

5 Since the Act's inception, Congress has intended citizens to supervise implementation of various
6 provisions and participate in enforcement actions in order to help achieve the goals of the Act.¹ The
7 citizen suit provisions in the 1977 amendments were designed to enable a citizen plaintiff to bolster the
8 government enforcement effort. 42 U.S.C. 7604 (1988). When Congress enacted the 1990
9 amendments, it sought to address shortcomings in the public participation provisions crafted in 1977,
10 and included a special mechanism not present in other permit mechanisms of the Act intended to
11 strengthened citizen participation by giving them a role in objecting to Title V permits. The 1990
12 amendments were designed to *promote* enforcement through the initiatives of private citizens, and
13 strengthened the right of citizens to act when the government declines (or lacks adequate resources) to
14 pursue a violation. 136 Cong. Rec H12,896 (daily ed. Oct. 26 1990) (comments of Collins, author of the
15 citizen suits provisions in the 1990 Clean Air Act, concerning the objective of the provisions). EPA's
16 own communications with the public underscore the importance Congress placed on public
17 participation. EPA's suggests that "[p]ublic participation is a very important part of the 1990 Clear Air
18 Act. Throughout the Act, different provisions give the public opportunities to take part in determining
19 how the law is carried out[...]. The Act give [the public] opportunities to take direct action to get
20 pollution cleaned up [...]. [The public] can get involved in reviewing air pollution permits for industrial
21 sources [in their communities]." EPA Website at http://www.epa.gov/airquality/peg_caa/public.html.²
22 For example, Congress explicitly declares its intent that PSD processes (which PPHE believes is
23 necessary here) should be designed and implemented to "assure that any decision to permit increased air
24 pollution in any area [...] is made *only* [...] *after adequate* procedural opportunities for *informed public*
25 *participation* in the decisionmaking process." 42 U.S.C. 7470(5) (emphasis added).

26 Furthermore, EPA's own Order in this case quotes the Federal Register and unambiguously

27 ¹ See *Baughman v Bradford Coal Co.*, 592 F 2d 215, 218 (3d Cir. 1979) (the legislative history of the citizen suit provisions
28 of the Act show congressional intent for citizens to supervise EPA enforcement); *cert. denied*, 441 U.S. 961 (1979). See
generally Nauen, *Citizen Environmental Lawsuits After Gwaltney: The Thrill of Victory of the Agony of Defeat?*, 15 WM
MITCHELL L. REV. 327 (1989) (citizen's suits provisions of the Act are the progenitor of all environmental citizen actions and
were designed to help achieve the goals of the Act).

² Elsewhere on the website, EPA informs the public "[s]takeholders and the public play a key role in developing standards
and implementation of the Clean Air Act." See <http://www.epa.gov/air/caa>

1 suggests that adequate opportunities for public participation are “[o]ne of the purposes of the Title V
2 program.” Hu Honua Order quoting 57 Fed Reg. 32250, 32251 (July 21, 1992). Title V permitting
3 processes and documentation must *enable the public to understand the requirements to which the source*
4 *is subject and whether the source is meeting those requirements. Id.* Title V itself requires that DOH
5 provide an adequate opportunity for public involvement in permitting processes. 40 CFR 70.7(h).

6 2. Documents Have Not Been Made Available, Are Not identifiable or Formatted, or Are Very
7 Difficult to Access and Understand

8 The requirements of Title V, PSD and other provisions of the Act are not simply to make
9 individual documents available to the public. Simply making information available to the public is a
10 necessary element of good governance, but is not sufficient to ensure that provisions of the Act are
11 implemented in such a manner that fulfills their purpose. More importantly, public availability is not the
12 legal standard against which permitting processes are judged. Rather, Congress intent establishes and
13 the Act embodies a rule under which permitting agencies have an affirmative obligation to “enable” and
14 “assure” the public has adequate avenues to become “informed” participants in decisions affecting their
15 communities.³ Regrettably, HDOH has failed to meet the basic legal standard and conflicts with a
16 fundamental purpose of the Act.

17 Specific impediments to public participation during the permitting process include the following
18 barriers to information: i) multiple revisions, which are themselves serially modified, are not clearly
19 identified or even dated⁴, thus preventing the public from establishing which documents (or which part
20 of which documents) contain the most recent modifications; ii) failure to supply a table of contents or
21 other organizational document that is necessary to permit a member of the public (even with some
22 background on Title V permits) to efficiently and effectively located those aspects of the permit related
23 to their concerns; iii) identification (and location information) for key documents are not identified in
24 notices; iv) refusing to grant simple and specific document requests (e.g. Statement of Basis requested
25 by Petitioners) and thereby delaying and inhibiting availability of information; v) failure to city authority

25 ³ Further supporting this interpretation of the Act is the fact that citizen enforcement provisions require a member of the
26 public exhaust administrative remedies, and meet the reasonable specificity requirement. Permit documents that are drafted,
27 organized and/or distributed in such a way that impedes or prevents a non-expert member of the public from exhausting
28 administrative remedies and meeting specificity requirements *within* the comment period render citizen enforcement
unavailable in direct contradiction of the Acts structure and explicit purpose. Any other interpretation of the letter and spirit
of the Act must be established by reference to specific authority.

⁴ For example, the “Amendment of Covered Source Permit (CSP) No. 0724-01-C,” created in response to EPA’s Order, is
undated and the only document available online is labeled “draft.”

1 in specific terms; vi) as of Sept. 11, 2014, the search results for the “Hu Honua” on the HDOH website
2 gets “0” hits; and vii) failure to hold a public hearing despite clear evidence of public interest in and
3 questions about the project, and confusion with document production and organization. See LOMC
4 “Preliminary PPHE Comments” Letter April 14, 2014; and “PPHE Comments” letter dated May 9, 2014
5 (incorporated here by reference). Each of these actions alone are contrary to the spirit and letter of the
6 law, and the process as a whole amounts to piecemealing of permit documentation and obstruction of
7 public participation. HDOH’s course of conduct has rendered the public’s ability to “understand” and
8 substantively comment on various revisions infeasible, and constitutes an action contrary to law.⁵

9 At a minimum, HDOH should be required to produce a single document, available on-line in
10 PDF format that includes the statement of basis, and an understandable explanation of how the permit
11 evolved and proceeded, including the date and reason for various revisions (e.g. in response to change in
12 application vs. Order from EPA). Ideally the explanation would contain links to each version of permit,
13 response to comments, etc. PPHE recognizes that the Act itself is complicated and that permitting
14 authorities are likely to face staff and resource constraints. Nevertheless, in this case, HDOH’s course
15 of conduct fails to comply with the letter and spirit of the public participation requirements of the Act.
16 EPA should provide guidance on the critical issue of minimum requirements that support public
17 participation. Petitioners request that EPA’s Administrator find that the CSP does not comport with
18 CAA requirements, vacate its effectiveness and direct the State to: i) issue a single comprehensive
19 document, written in language “understandable” by the public and appropriately noticed, which includes
20 a table of contents, the Statement of Basis, an easily identified series of permit versions, responses to
21 comments and the final permit language in a format the permits readers to view and comment on
22 amendments; and ii) hold a series of three (3) public forums at which HDOH will detail the Project plans
23 and Permit decisions and provide support for the veracity of the emissions factors used to avoid PSD
24 review. Alternatively, EPA may provide its own guidance to HDOH as to how to proceed with the
25 permit in a manner that comports with the law. To date, HDOH has both excluded and erected barriers

25 ⁵ A source is protected from suits brought by citizens unless the citizen participated during the public comment period on the
26 source’s permit application. Further, exhaustion doctrine limits suits by these individuals to issues raised with particularity.
27 If the documentation and organization of a permit process is not approachable by the public, these requirements may be
28 impossible to fulfill. And a deliberately convoluted process could effectively bar suits by the vast majority of affected public
members. Petitioners understand that a balance has to be struck between dealing with the Act’s complex nature and public
participation goals. At some point a process steps over the line into unacceptably and unnecessarily (if not intentionally)
complicated. That line has been crossed here. Courts have recognized that § 505(b)(2) contains a “discretionary component”
that requires the exercise of the EPA’s judgment to determine whether a petition demonstrates non-compliance with the Act.
Sierra Club v Johnson, 541 F3d 1257.

1 to insulate the lay public from the processes and has been uncooperative and antagonistic to counsel and
2 technical professionals seeking to obtain information about the substance and process of HDOH's
3 rulemaking in this proceeding.

4 When Petitioner's counsel requested a unified SOB, HDOH staff directed PPHE to a differently
5 labelled document that possessed only part of the requested information, and played "hide the ball" in
6 mandating a formal public records request for basic project information.

7
8 **3. No Statement Of Basis Was Furnished and Its Surrogate Was Inadequate**

9 A Statement of Basis ("SOB") is an introductory document prepared by a permitting authority
10 that sets for the legal and factual basis for the draft permit conditions, with references to applicable
11 statutory and regulatory provisions. 40 CFR 70.7(a)(5). The SOB serves a critical function in the Title
12 V context, as this document is intended to orient interested parties (including members of the public)
13 and provide a context for the permit being crafted. Commonly, the SOB includes a table of contents for
14 the permit, as well as a list of table and figures, which further help orient and guide interested parties in
15 reviewing and commenting on a permit. In addition to being a basic legal requirement of Part 70, a
16 complete and clearly written SOB is essential to providing adequate opportunities for public
17 participation.

18 The permit fails to include a statement of basis as required by 40 C.F.R. § 70.7(a)(5). The record
19 does not include any documentation that is designated as the Statement of Basis, and the permitting
20 authority did not provide the documents to Petitioner in response a specific request. The HDOH has
21 pursued this course of action (or inaction) despite clear language in 40 CFR § 70.7(a)(5) that the
22 permitting agency "shall send this statement to EPA and any other person who requests it." Id.

23 The document titled Permit Review Summary and Analysis fulfills certain purposes of a SOB,
24 but is woefully inadequate and improperly titled to constitute compliance with the Act. And as noted
25 above, Petitioner's attempts to gain timely access to required documentation, including the SOB, were
26 met with unnecessary and professionally inappropriate obstruction. LOMC May 9, 2014 Comment
27 Letter p. 3.

28 The SOB becomes even more important to compliance with the Act when a complex permit, like

1 the one at issue here, contains multiple documents that constitute “the permit,” most of which underwent
2 multiple revisions. As noted above, HDOH engaged in a piecemeal approach to permit drafting, which
3 makes a complete and adequate SOB an essential element to compliance with the Act. Without the
4 ability to locate and cross-reference the various revisions and documents that comprise CSP 0724-01-C,
5 the public is effectively blocked from meaningful participation.

6
7 Further, the Permit does not provide specific authority or citation (as noted above more
8 generally). Specifically, the Permit provides no reference for those sections of the lengthy Subpart
9 JJJJJ that apply to the Hu Honua facility, nor “the legal or factual basis” on which HDOH has
10 determined which requirements are applicable. 40 C.F.R. § 70.7(a)(5). It is not clear whether the State
11 is designating the facility as new or existing—given that the Applicant seeks to re-start a facility that had
12 previously ceased operations in 2004—and the Permit does not specify which of the various
13 requirements—emission limits, work practice standards, emission reduction measures, or management
14 practices—apply to Hu Honua. Without specificity on these issues, the public is unable to determine
15 whether the Permit applies all applicable requirements to the facility, and whether the Permit includes
16 sufficient monitoring, recording and reporting elements to measure, establish and assure compliance
17 with the Act. Indeed, a petitioner cannot be expected to meet the burden requirement of
18 “demonstrate[ing] non-compliance with the Act,” including offering “relevant analysis and citations to
19 support its claims” where the permitting authority has failed to adequately detail its own “decisions and
20 reasoning,” including accurate citations. In Re: Consolidated Environmental Management, Inc., “Order
21 Denying Specific Objection I in May 3, 2011 Petition for Objection to Permits, and As-Raised in
22 October 3, 2012 Petition for Objection to Permits” p 6-7 (“Nucor II Order”).

23 4. Mandatory Public Notification Procedures Were Ignored

24 Part 70 regulations require that the State procedures provide the following minimum procedures for
25 public involvement and notification:

26 (h) Public participation. Except for modifications qualifying for minor permit
27 modification procedures, all permit proceedings, including initial permit issuance, significant
28 modifications, and renewals, shall provide adequate procedures for public notice including
offering an opportunity for public comment and a hearing on the draft permit. These
procedures shall include the following:

1 (1) Notice shall be given: by publication in a newspaper of general circulation in the area
2 where the source is located or in a State publication designed to give general public notice; to
3 persons on a mailing list developed by the permitting authority, including those who request
4 in writing to be on the list; and by other means if necessary to assure adequate notice to the
5 affected public;

6 40 C.F.R. § 70.7(h).

7 State law similarly requires notice “to persons on a mailing list developed by the director, including
8 those who request in writing to be on the list.” HAR 60.1-99(b)(4)(B).

9 In written comments, PPHE expressed concern and objection based on HDOH’s failure to notify any
10 member of the public of its notice of permit action and public comment period. PPHE Letter, 4/14/14,
11 page 2. In response, the HDOH Clean Air Branch Engineering Section responsible for administering the
12 Title V program explained that its understanding of their role does not include any duty to maintain a list
13 of states, “[the Department regulates and monitors air pollution sources...It conducts engineering
14 analysis and permitting, performs monitoring and investigations, and enforces the federal and state air
15 pollution regulations.” Summary of Public Comments Received on Draft Air Permit for comment
16 period March 14, 2014 to May 9, 2014 p. 4 of 9. The Department’s response states further that they
17 “cannot generate a mailing list and notify only those commenters that objected to the Hu Honua facility
18 or questioned the adequacy of a permit condition.” HDOH Responses to Comments, page 5 of 9.
19 PPHE’s comment made not such request, only that HDOH should have a mailing list and PPHE should
20 be on it. While there was some back and forth, it turns out that HDOH simply does not maintain a
21 mailing list as contemplated by state and federal requirements.

22 HDOH’s narrow view of applicable rules related to public participation ignores explicit references to
23 public participation in the Act itself, as noted earlier with respect to 42 U.S.C. 7470(5). HDOH’s
24 response clearly demonstrates their unwillingness to comply with the public participation mandate, and
25 demonstrates that they fail to understand the varied purposes and outcomes of public participation. As a
26 consequence of not timely notifying both Petitioner and other commenters (without regard for their
27 position on the project), PPHE and the public at large has been prejudiced in this proceeding.

28 5. A Hearing Was Improperly Denied

PPHE requested that the HDOH conduct a public hearing so the public comment process would be
robust and provide opportunity for both PPHE and other interested members of the public to have actual,

1 real time interaction with HDOH personnel and describe their technical concerns over the revisions to
2 the Project.

3 The Department rejected the public hearing request, concluding that it “determined after reviewing
4 the comments submitted...that a public hearing...would not have aided the Department...and therefore a
5 public hearing was not held.” *Id.* at p. 5 of 9. While it is certainly the case that public involvement in
6 permitting processes is, in part, intended to aid the Department, such a narrow view is contrary to both
7 the letter and spirit of the Act and is yet another example of the HDOH’s pattern and practice of limiting
8 public engagement and participation in these proceedings.

9
10 **V. Permit Limitations Are Not Practically Enforceable**

11 For a variety of reasons, HDOH has failed to ensure the Permit is sufficiently clear to be enforceable.

12
13 1. The emissions factors are fundamentally erroneous and the Permit lacks enforceability

14
15 HDOH relied on unsubstantiated and highly questionable emissions factors in calculating the Hu
16 Honua facility’s PTE and allowing use of a synthetic minor permit assuming the permit emissions cap
17 would be reached at the 12 month mark, when the much higher actual emissions rates will require
18 periods of extended shutdowns to meet 12 month rolling emissions limits. Petitioner’s concerns are
19 twofold. First, the facility will reach or exceed the emissions limits for CO and/or NOx in less,
20 potentially much less than twelve months, which will in turn subject the community of Pepe’ekeo to
21 variable pulses of higher concentrations of air pollution that will impair human health and well being,
22 and which would not be permitted under PSD. Second, Petitioner is concerned with if, when and how
23 HDOH will respond when it is ascertained that the Hu Honua facility’s emissions are substantially
24 higher than calculated by the Applicant in their submittal. Since the emissions factors are not supported
25 by actual experience with similar facilities and substantially understate Hu Honua facility emissions per
26 unit of electricity when compared to the emissions from similar facilities operating elsewhere, the Hu
27 Honua facility can be expected to have to shut down during a substantial portion of each 12 month
28 rolling period to maintain compliance with the cumulative emissions limitations embedded into the
synthetic minor permit. This will increase the number of times that the Hu Honua facility goes through
shutdown and startup cycle, with concomitantly higher emissions.

1
2 Further, the Hu Honua facility may be constrained in its ability to shut down. Petitioners note
3 that the Hu Honua facility has entered into a power supply agreement with local consumer electricity
4 providers with minimum power supply and specific timing expectations concerning the Hu Honua
5 facility's operations that create contractual incentives or requirements to provide a certain amount of
6 electricity to help balance on the grid.

7
8 EPA initially noted that HDOH had not provided sufficient documentation or justification for the
9 CO emissions factors used to calculate the CO PTE, and without adequate justification the permit should
10 be denied and the applicant "must submit a PSD permit application." EPA Region IX Letter to Clean
11 Air Branch Manager Wilfred Nagmine from Permits Office Chief Gerardo Rios on 6-30-11 point 1 ("6-
12 30-11 Letter"). EPA's Order offered HDOH (and/or the operate) an opportunity to avoid such
13 justification *if* it established federally and practically enforceable emissions limits in the final Permit.
14 Hu Honua Order p 9. EPA suggested that HDOH's other option was to provide documentation that
15 would justify treating Hu Honua as a synthetic minor source using "source test data from other existing
16 stoker biomass boilers that are complying with the emissions limits...proposed for Hu Honua." 6-30-11
17 Letter point 1 (emphasis added). HDOH has failed in both regards, and therefore Hu Honua must be
18 treated as a major source of criteria pollutants and undergo PSD/BACT analysis.

19 A permit is enforceable as a practical matter (or "practically enforceable") if permit conditions
20 establishes a clear legal obligation for the source and/or allows compliance to be verified and enforced
21 under, for example, section 113(a) of the Act. EPA suggests that "practical enforceability of a permit
22 should be reviewed to *assure* the public's and EPA's ability to enforce the Title V permit is maintained,
23 and to clarify for the Title V source its obligations under the permit." EPA Region IX "Guidelines:
24 Practical Enforceability," Sept. 9, 1999 ("Practical Enforceability Guidelines").⁶

25 Significantly, as currently configured under the Revised Permit, HDOH and the public will not
26 be able to learn of potential or actual emission violations for as many as eight (8) months under current
27 reporting requirements. Semi-annual reporting, with a sixty-day window for actual report submittal,

28 ⁶ <http://www.epa.gov/region9/air/permit/Titlev-guidelines/practical-enforceability.pdf>. See also Region V guidance which suggests that "[f]or any permit term that requires a calculation to determine compliance, make sure that *the equation and all assumptions* are written into the permit."

1 would permit 8 months to pass before the State or the public became aware of a exceedances and the
2 consequent requirement to subject the facility to full PSD or HAP analysis. The Permit's failure to
3 permit more rapid determinations of likely or actual emissions threshold exceedances make relevant
4 emissions limits practically unenforceable, and may permit avoidable and adverse public health threats
5 to nearby communities who are not afforded the protections that the BACT or MACT analysis of a
6 major source would require.

7 2. Revised Permit Emissions Limits Are Not Practically Enforceable

8
9 An emission limit for criteria pollutants can be relied upon to restrict a source's PTE *only if* it is
10 legally and practically enforceable. *In the Matter of Cash Creek Generation, LLC*, Order Granting in
11 Part and Denying in Part Petition for Objection to Permit for Air Quality Permit No V-09-006 at 14-15
12 ("*Cash Creek Order*"); *see also* 40 C.F.R. § 52.21(b)(4) (federal PTE definition for PSD applicability
13 [incorporated into 40 CFR 52.632 by reference for Hawai'i]) (emphasis added).⁷ EPA's Order states
14 that *only if* HDOH makes CO emissions limits at Hu Honua enforceable may it calculate PTE based on
15 the CO limit and thereby avoid having to quantify actual operating and SSM emissions. 6-30-11 Letter
16 point 1 and 2. The permit revisions do not satisfy this pre-requisite (as detailed below) and EPA must
17 therefore object to the permit.

18 At E.14.a.iii, the permit requires wood sampling and analysis (i.e. monitoring) per E.2.c.iii in
19 order to calculate CO emissions. E.2.c.iii mandates this monitoring per a protocol provided at F.4. The
20 F.4 monitoring protocol, on which ultimate emissions calculations depend (CO, as well as NOx),
21 however, has not yet been developed. Relatedly, per E.5.b.iii and E.2.C.iii, the ultimate calculation of
22 individual and total HAPS emissions also depends on an unknown and entirely undefined F.4
23 monitoring protocol. The development of a rigorous wood content monitoring protocol is especially
24 important at Hu Honua because the emissions limits are based on the 2,800,000 MMBtu/yr fuel
25 consumption limit (and as noted earlier, emissions factors are unsubstantiated). In order to be
26 practically enforceable, the permit must define all parameters essential to establishing the energy output
27 of the fuel source. EPA provides examples of practical enforceability, "[f]or example, the permittee

28 ⁷ 40 C.F.R. § 63.2 provides substantially the same PTE definition for determining applicability of maximum achievable control technology standards for HAPs; *see also In re Orange Recycling and Ethanol Production Facility, Pencor-Masada Oxydol, LLC*, Petition No. II-2000-07, Order on Petition (May 2, 2001), at 21.

1 shall monitor the emissions units weekly in accordance with Method X.” By leaving the monitoring
2 protocol entirely unknown, the permit is not only practically unenforceable, but it undermines public
3 confidence in HDOH’s commitment to protect public health and welfare.

4
5 Defining the monitoring method here is especially important to the practical enforceability of the
6 Hu Honua permit because: i) the fuel source is known to be highly variable⁸; ii) initial emissions
7 calculations (in the draft permit) demonstrate a remarkable small margin of error to remain below
8 applicable major source thresholds; and iii) Section D of the permit establishes Operational Limits on
9 the basis of fuel usage (maximum 2.8 MMBtu per rolling twelve-month period). The absence of a
10 detailed F4 monitoring methodology makes determination of the “quality and quantity” of Permit terms
11 impossible to enforce. EPA Potential to Emit Transition Policy (January 25, 1995) p. 5. Without the
12 details of the monitoring protocol, or at least “a reasoned explanation for [why] the compliance [...]
13 method” was excluded, any provision based on the yet-to-be-developed protocol is not practically
14 enforceable and *does not assure compliance* with the Act. *See, Cash Creek Order* p. 15.

15 3. Hu Honua Is A Major Source of Criteria Pollutants

16 EPA noted that HDOH had not provided documentation or justification for the CO emissions
17 factors used to calculate the CO PTE. 6-30-11 Letter point 1. EPA suggested that HDOH use “source
18 test data from other existing stoker biomass boilers that *are complying with* the emissions
19 limits...proposed for Hu Honua.” 6-30-11 Letter point 1 (emphasis added). Rather than rely on existing
20 facilities that are presently complying with the emissions limit, HDOH attempts to justify the 0.17
21 lb/MMBtu figures by reference to two facilities that are “not yet constructed and operated.” Addendum
22 B, Response to EPA’s Comments on Proposed Air Permit for Hu Honua Bioenergy (undated) p 2
23 (“Addendum B”). HDOH’s entire justification is that the two facilities⁹ believe they can meet the
24 emissions limits based on engineering and equipment similar to that chose at Hu Honua. *Id.*

25
26 ⁸ The wood source includes stumps, branches, bark or sawdust in two forms, chips or pellets. The variability inherent in 4
27 wood forms burned in two forms further underscores the importance of rigorous and regular monitoring.

28 ⁹ Lufkin, TX Plant in Region II: One 692.6 MMBtu/hr wood fired boiler makes steam for a 45 MW steam turbine. Fuel is
clean wood waste from the wood products or lumbering operations (other sources at plant are wood grinder, storage piles and
fuel and ash conveyors). The second facility is the Tate and Lyle Ingredients Plant.

1 HDOH has also failed to provide the “sufficient justification that the boiler will not be a new
2 major source of CO” as required, therefore HDOH “should deny” the permit and the applicant “must”
3 under major source review. 6-30-11 Letter point 1. The justification proffered by the Applicant, and
4 accepted by HDOH, suffers from at least two infirmities. First, the referenced facilities identified as
5 justifying the unrealistic emissions factors are not, as EPA suggested, successfully operating and
6 complying with the emissions limits as required in EPA. 6-30-11 Letter point 1. This undermines the
7 reliability of using them as a reference as even the two reference facilities may still prove incapable of
8 achieving the low emissions rates presumed in the permit. Second, the engineering and equipment used
9 at the facilities are only two of the three critical features that would make their analogy even partially
10 responsive to EPA’s “operating and complying” mandate. In addition to engineering and equipment,
11 both fuel source and industrial context must be specifically analyzed to determine the analytical utility
12 of the two plants. Fuel is a critical factor in actual CO emissions from operational facilities. Also, the
13 nature of co-firing, of other EGUs on site, makes up the industrial context. Failure to indicate and
14 explain how the fuel source(s) anticipated for the two facilities, and the industrial context, further
15 reduces their utility in justifying what EPA suggests would be “among the lowest [the agency] has ever
16 seen nation-wide for biomass-fired boilers, including boilers with add-on CO control devices, and
17 circulating fluidized bed boilers, which are generally more efficient...and consequently produce lower
18 CO emissions than stoker boilers.” 6-30-11 Letter point 1. According to Petitioner’s best information,
19 these floors have never been “achieved in practice” by any single unit and cannot, therefore, serve as the
20 foundation for a synthetic minor source permit. Even if these floors are found to have been achieved in
21 the real world, the facilities at which they have been demonstrated must be substantially identical to Hu
22 Honua if HDOH is going to rely on them for a synthetic minor permit where initial emissions
23 calculations are “very close” to the 250 tpy major source threshold. 6-30-11 Letter point 1. The law and
24 public confidence in CAA permitting require it.

23
24 Petitioners and EPA have noted in communications with HDOH that the CO PTE of 246.4 tpy
25 and was “very close” to the 250 tpy major source threshold—just 3.6 tpy shy of emissions that would
26 require application of Hu Honua to comply with PSD for CO and NOx. Id. EPA commented that the
27 proposed “CO emission limit proposed by CAB [was] among the lowest EPA has ever seen nationwide
28 for biomass-fired boilers, including boilers with add-on CO control devices, and circulating fluidized
bed boilers, which are generally more efficient than other boiler types and consequently produce lower

1 CO emissions than stoker boilers.” *Id.* The initial predictions for CO and NO_x PTE *excluded* SSM and
2 upset condition emissions, which are known to be substantially greater than steady state emission rates.
3 With the addition of virtually any emissions that were not included in the initial predictions, e.g.
4 emissions from the generator, SSM emissions and/or upset events, will result in Hu Honua properly
5 being classified as a major source and subject to PSD. Importantly, since the initial calculations were
6 released by HDOH, the permit has been revised to add a variety of new emissions sources, but HDOH
7 and the applicant continue to assert that the facility can remain below major source thresholds. The
8 weight of the evidence strongly suggests otherwise.

9 According to a recent report, the average allowable emission rate for the PSD facilities in (i.e.,
10 those that had gone through a BACT analysis) was around 0.2 lb./MMBtu. At that emission rate, a
11 relatively small boiler of 285 MMBtu (around 18 MW) would have the potential to emit 250 tons of CO
12 per year, suggesting that most facilities, unless they are taking exceptional measures, are likely to be
13 major sources for CO. PFPI Report p. 29. Hu Honua is using a CO emission factor of 0.17 lb/MMBtu
14 in the permit, but would need to keep average emissions below 0.14 lb./MMBtu to stay below 250 tons.
15 PFPI Report p. 29. These unrealistic and unreliable expectations further undermine the unjustified
16 emissions factors that serve as the basis for Hu Honua’s synthetic minor source permit. EPA should
17 direct HDOH to initiate a full PSD process for Hu Honua, which is properly a major source of criteria
18 pollutants.

19 In an earlier draft of the permit, CAB rejected the use the AP-42 acrolein emission factors
20 because the data were rated “C.” However, the current permit uses an emissions factor for Priority
21 Biofuels in Minnesota for 100% biodiesel that has a “C” rating.¹⁰ EPA’s Emissions Inventory
22 Improvement Program reports that “[t]he generation of undesirable combustion products is strongly
23 influenced by *fuel type, furnace type, firing configuration, and boiler operating conditions...*[and that]
24 NO_x formation is highly dependent on boiler conditions, especially temperature and air/fuel ratios near
25 the burner.” Given the substantial differences in the conditions (and potentially the fuel characteristics)
26 between Minnesota and Hawai’i, HDOH should provide an analysis of whether the comparisons are
27 appropriate, especially given the “C” rating of the data.

28 ¹⁰ The Priority Biofuels in Minnesota deals with only certain types of biodiesel and HDOH does not provide any analysis of whether the fuels that will be used in Hawai’i are similar to those in the study on which it relies.

1 Relatedly, and contrary to a direct requirement in the Order, the Permit fails to specifically
2 connect the calculations in Section F.6.a.vii to determining compliance with the emissions limits in C.6
3 (Criteria Pollutants) and C.7 (HAPs). Hu Honua Order p. 17.

4
5 4. Compliance Provisions Ignore EPA Order Mandates

6
7 i. Shutdown Emissions Projections, Calculations and Methodology is Inadequate

8
9 Despite the Administrator’s direction that actual Startup, Shutdown and Malfunction emissions
10 must be calculated and included in the Hu Honua facility’s Emissions limitations, monitoring and
11 recordkeeping, the Revised Permit and accompanying analysis fails to evaluate potential emissions or
12 require integration of actual emissions associated with these events into the emissions limitations. The
13 totality of the analysis is that “nothing significant will happen.” Responses to Comments at 7 of 9.
14 According to HDOH, startups are expected to produce less emissions per mass than biomass, and the
15 emissions controls are projected to “operate optimally” during shutdown, and thus have no emissions
16 consequences. Malfunction omissions are omitted entirely.

17 Contrary to the Applicant’s and State’s rosy projections of nominal emissions excursions during
18 startup and shutdown, experience at comparable facilities indicates emissions should be expected to
19 increase substantially during this period, with specific differences in CO, NOx and hazardous air
20 pollutants, each of which should be subjected to a specific analysis.

Table 3: Emissions increase significantly during startup/shutdown

Pollutant	Normal Emissions (lb/hr)	Maintenance, Startup and Shutdown Emissions	
		(MSS)	MSS Emissions as % of Normal Emissions
NO _x	54	54	100%
CO	54	96.8	179%
VOC	6.1	16.1	264%
PM ₁₀	22.1	168.8	764%
SO ₂	7.9	5.6	71%
HCl	1.53	7.65	500%
H ₂ SO ₄	0.2	0.4	200%
NH ₃	10.7	-	-

Table 3 Allowable emission for the Greenville bioenergy facility in Texas. Emissions increase significantly during non-steady state operation

The fact that synthetic minor sources aren't required to do air quality modeling means that the effect of these short-term surges in pollutant emissions on air quality and health can't be known. Rather than requiring facilities to control emissions during these periods, permitting agencies simply rely on facilities to do the right thing to control pollution. For instance, in response to a comment expressing concerns about the absence of controls during startup and shutdown at the proposed 25 MW North Star Jefferson wood-tire burner in Wadley, Georgia, the Georgia Air Protection Branch staff explained, "During startup and shutdown phases, the control devices are not able to achieve desired control efficiency due to operational limitations of the systems. The annual PSD Avoidance limits for CO, SO₂, NO_x and GHG include emissions during all periods of operation including startup, shutdown and malfunction; thus, there is incentive for facility to begin operation of the control devices as soon as possible to ensure compliance with the emissions limits."⁴¹

Carbon monoxide (CO) emissions in "synthetic minor" versus PSD permits

Aside from carbon dioxide (CO₂), carbon monoxide (CO) is the pollutant emitted in greatest quantities by biomass burning. High moisture and variable quality of biomass fuels lead to incomplete combustion, increasing CO emissions above levels typical for fossil fuel-fired facilities. Adding more oxygen to the combustion process can help reduce CO emissions, but doing so increases formation of "thermal" NO_x, making it more difficult to remain within NO_x emission limits.

- ii. The reliance of 2.8 MMBTU as the surrogate for air pollution emissions limitation precludes Permit effectiveness

A fundamental flaw in HDOH's revised permit is the reliance on emissions factors multiplied time fuel expenditure to demonstrate compliance with the synthetic minor emissions limitation. By understating the emissions factor, then allowing the permit to control total fuel, there will be no certainty that the actual emissions will be less than or equal to the calculated limitations. According to the HDOH, the only protection is the inclusion of a 10 per cent factor "added for conservatism." Responses to Comments at 6 & 6 of 9. + to provide an enforceable emissions limitation per MBTU

In fact, there is evidence that many biofueled facilities, including Hu Honua, seem able to state an emissions factor that calculates to just below the Major source cutoff, regardless of the size of the facility, the type of boiler, and the type of air pollution control quipment required. See for example:

Table 4: Biomass power plants with synthetic minor status for carbon monoxide

Plant	State	MMBtu	MW	Boiler	CO control	Cap rate	CO (tons/yr)
Pinal Biomass Power, Maricopa	AZ	410	30	Stoker	none	0.13	240
DTE Stockton, Stockton	CA	699		Stoker	oxid cat	0.08	248
U.S. EcoGen Polk, Fort Meade	FL	740	52	FBB	none	0.08	246
ADAGE, Hamilton City	FL	834	56	FBB	none	0.07	245
Green Energy Partners, Lithonia	GA	186	10	Stoker	none	0.30	249
North Star Jefferson, Wadley	GA	321	22	FBB	none	0.18	249
Greenleaf Environmental Solutions, Cumming	GA	372	25	FBB	none	0.15	250
Greenway Renewable Power, LiGrange	GA	719	50		none	0.08	249
Plant Carl, Carnesville	GA	400	25	FBB	oxid cat	0.14	249
Wiregrass, Valdosta	GA	626	45	FBB	none	0.09	247
Lancaster Energy Partners, Thomaston	GA	215	15	Stoker	none	0.26	249
Lancaster Energy Partners, Macon	GA	220	16	Stoker	none	0.26	249
Fitzgerald Renewable Energy, Fitzgerald	GA	808	60		none	0.07	249
Piedmont Green Power, Barnesville	GA	657	55	Stoker	none	0.08	227
Hu Honua, Pepekeo	HI	407	22	Stoker	none	0.14	246
Liberty Green, Scottsberg	IN	407	32	FBB	none	0.13	225
ecoPower, Hazard	KY	745		FBB	none	0.08	240
Menominee Biomass Energy, Menominee	MI	493		FBB	none	0.11	245
Sawyer Electric Co., Gwine	MI	560		FBB	none	0.10	245
Perryville Renewable Energy, Perryville	MO	480	33	FBB	none	0.11	225
ReEnergy Black River, Fort Drum	NY	284	19	Stoker	none	0.20	250
Biogreen Sustainable Energy, Li Pine	OR	353	25		none	0.16	247
Klamath Bioenergy, Klamath	OR	459		FBB	none	0.11	230
EDF Dorchester, Hartleyville	SC	275	18	Stoker	none	0.20	241
EDF Aftandale, Aftandale	SC	275	18	Stoker	none	0.21	250
Loblolly Green Power, Newberry	SC	675	53	Stoker	oxid cat	0.08	222
Orangeburg County Biomass, Orangeburg	SC	525	35	FBB	none	0.11	250
NOVI Energy, South Boston	VA	629	50	Stoker	none	0.09	236

Table 4. Carbon monoxide limits for some synthetic minor source permits issued in recent years. The "cap rate" is the rate at which the unit would have to operate in order to stay below the specified tons of CO per year. "FBB" is fluidized bed boiler.

The experience at other facilities throughout the country demonstrates the absence of a technical foundation for the Hu Honua facility emissions limitation. Like a broad and diverse set of other biofueled facilities, emissions limitations predicated on a limitation of fuel consumed in light of

1 projected emissions factors are plainly not in accordance with the Act's enforceable emissions
2 limitations. Since these sources, Hu Honua included, have sought synthetic minors, EPA must reject
3 this permit as lacking a technical foundation that ensures compliance with the 250 TPY limitations for
4 criteria pollutants and 10/25 TPY for hazardous air pollutants. EPA elected to withhold action on these
5 claims that had been similarly articulated in the prior PPHE petition (and are incorporated herein by
6 reference as if restated herein). Similarly, startup, shutdown and malfunction emissions are not
7 quantified or calculated, with HDOH relying again on superficial or non-existent analysis then hiding
8 the inadequacy of their effort and sending interested members of the public on protracted run-arounds
9 and refusing to allow meaningful public comment by giving timely notice and holding a public hearing.

10 4. Summary of Objections

11
12 As EPA notes in the Order, and as is entirely appropriate given ample opportunities HDOH has
13 enjoyed to craft an enforceable Permit through no less than 5 revisions, Petitioners request that EPA
14 require Hu Honua to provide the public with a rigorous analysis of emissions factors and potentials to
15 emit for each criteria pollutant and for individual and total HAPS. The mischaracterization of the
16 Project as a synthetic minor source has been the thrust of Petitioner's concerns since the very beginning
17 of this process in 2009. Legally, EPA owes no deference to HDOH at this point. HDOH's inattention to
18 detail and unwillingness to conduct its permitting process with appropriate rigor and in an open,
19 transparent belies an institutional effort to avoid the requirements of the Clean Air Act and to protect the
20 health and welfare of the communities that will be most affected by the Hu Honua facility.

21 EPA must require HDOH conduct and provide for the public a complete quantitative analysis to
22 substantiate the unlikely possibility that Hu Honua can realistically achieve

23 **VI. Emissions Limitations for HAPs Not Federally or Practically Enforceable**

24 1. Hu Honua Is A Major Source for HAPs and Must Undergo MACT Analysis

25
26 As noted above, defects in F.4 protocol apply with equal vigor to HAPs. In order to calculate
27 individual and total HAPs emissions, E.15.b.iii suggests wood sampling and analysis per E.2.c.iii, which
28 in turn depends on the monthly sampling for HHV of the fuel and quarterly sampling for chlorine

1 content of the fuel according to the “protocol” in F.4. However, as discussed above, the F.4 protocol is
2 absent. Without details about the protocol quality and frequency, the Permit is not practically
3 enforceable for HAPs and EPA should mandate MACT procedures.

4
5 2. Compliance Provisions Ignore EPA Order Mandate

6 Relatedly, and contrary to a direct requirement in the Order, the Permit fails to specifically
7 connect the calculations in Section F.6.a.vii to determining compliance with the emissions limits in C.7
8 (HAPs). Order p. 17; see also Letter from Region IX Permits Office Chief Gerardo Rios to HDOH
9 Clean Air Branch staff Nolan Haria, dated July 17, 2014.

10
11 **VII. Buffet Style Emissions Factors Unacceptable**

12
13 As noted supra, emissions factors are a critical aspect of the flawed State permit review. EPA
14 Region 9 stated that it was *not* acceptable to use non-AP-42 emission factors without justifying why
15 these factors were better than the EPA factors. PFPI Report p. 47. EPA orders have repeatedly made
16 clear that permitting agencies must “provide an adequate rationale” for its permitting decisions. Nucor
17 II Order p. 6. The permitting agency must supply adequate reasoning or petitioners would be unable to
18 meet its §505 burden. Here, HDOH fails to provide an “adequate rationale” for allowing the operator to
19 select from such a wide variety of data sources. The decisions is not based on reasonable grounds, or
20 otherwise supported in the record.

21 HDOH’s response to comments suggests that the buffet style emission factors are justified “since
22 AP-42 may not provide emissions factor data for some pollutants or other emissions factors were
23 deemed more current and/or more representative.” Summary of Response to Comments Received on
24 Draft Air Permit Amendment, comment period March 14, 2014 to May 9, 2014, p. 2 of 9 (“May 9, 2014
25 Response to Comments”). HDOH has failed to provide sufficient justification for such a broad range of
26 emissions factor sources that so substantially reduce the projected emissions from the Hu Honua facility.

27 Petitioners urge EPA to categorically reject any justification of alternatives to AP-42 based on
28 how recently the data source was developed. HDOH seems to imply that more current data is
necessarily more reliable or accurate. The only “adequate rationale” that would explain why the

1 operator may need to use a data source other than AP-42 is where the data is more reliable or more
2 applicable *at Hu Honua*.

3
4 There are only ten instances out of the 33 HAPs shown in the table where NCASI factors are the
5 same or greater than the EPA factors, and for the HAPs with the highest AP-42 factors (acrolein,
6 benzene, formaldehyde, hydrochloric acid, manganese, and styrene) the NCASI factors are consistently
7 and significantly lower – for instance, NCASI’s emissions factor for acrolein is just 2% of the EPA
8 emission factor. PFPI p. 46. It is simply not reasonable or appropriate to rely on unsubstantiated
9 emissions factors based on the evidence and support cited by HDOH and the applicant with regards to
10 the Hu Honua facility.

11 **VIII. Permit Must Preclude Affirmative Defenses**

12 Additionally, the permit should explicitly preclude the use of any affirmative defenses related to
13 malfunction or upset conditions that result in exceedances. The policy justification that is the foundation
14 of permitting affirmative defenses is not present here. EPA has, at times, permitted the inclusion of an
15 affirmative defense to civil penalties for violations caused by malfunctions in an effort to create a system
16 that incorporate some flexibility, recognizing that there is a tension, inherent in many types of air
17 regulation, to ensure adequate compliance while simultaneously recognizing that despite the most
18 diligent of efforts, emissions standards may be violated under circumstances entirely beyond the control
19 of the source.” Unlike circumstances where exceedances are unavoidable (or at least excusable) even by
20 the most diligent operator, synthetic minor permitted sources that affirmatively place their facilities in a
21 position where emissions are pledged to stay below an emissions limit must accept heightened
22 consequences from emissions in excess of permit and Major Source thresholds. At Hu Honua, the
23 operator should accept that even minor malfunctions or rare upset conditions will likely cause the
24 facility to exceed permit thresholds. The operator could at this juncture protect itself from agency or
25 citizen enforcement actions by undertaking full major source criteria and HAP analysis. Given the
26 option currently available to the operator at Hu Honua, the permit should explicitly preclude the use of
27 affirmative defenses for the entirely foreseeable exceedances and avoidable outcome.
28

1 **IX. F6 Monitoring Report Requirements Are Not Practically Enforceable**

2 F6 establishes a semi-annual monitoring report requirement, with two reporting periods between
3 Jan. 1-June 30, and July 1-Dec. 31. F6 further permits reports to be submitted up to sixty days following
4 the end of each period. Under F6, therefore, up to 8 months is likely to pass before Hu Honua must
5 submit monitoring reports. EPA suggests that in order for a permit or limits in a permit to be practically
6 enforceable, they must “readily allow” for compliance determinations. Given Petitioners grave and
7 justified concern about the likelihood that the facility will exceed synthetic minor source thresholds far
8 faster than the applicant is predicting, the 8 month submittal window is not sufficiently short to assure
9 compliance with the Act and is not practically enforceable in the context of this synthetic minor source
10 permit. More regular reporting, at least for the initial 2 years of operations, would be required to ensure
11 that HDOH does not learn too late that the facility has or will soon exceed thresholds intended to protect
12 public health and safety.

13 **X. Monitoring, Recording and Reporting Flow Meter Data**

14 There is no requirement that data from the flow meter be included in any reporting. EPA
15 insistence on the installation, operation and maintenance of the flow meter, which was intended to
16 permit the conversion of ppm emission data measured by the CO and NOx CEMS to lb/hour data to
17 verify compliance. The permit must include a commensurate requirement to record and report any data
18 from the flow meter. Failure to do so would not only render the public’s review authority useless, but
19 the permit cannot *assure* compliance with the Act.

20 **XI. E6 continues to be ambiguous**

21 EPA specifically directed HDOH to “connect” the Monitoring Report Forms to compliance
22 determinations with the CO and NOx emissions limits in Section C6. EPA Order at There is no
23 “connection” or cross-references of these provisions as directed by EPA. Elsewhere the permit includes
24 appropriate cross-referencing, e.g. E.8.d and G.1.a. Furthermore, the purpose of the semi-annual reports
25 outlined at E6 should be explicitly stated, and the format for such reports should readily allow a
26 determination of violations of any emissions limit.
27
28

1 **XII. GHG Emissions**

2 The *UARG* decision leaves open the question of whether facilities subject to Title V, but who
3 avoid PSD by means of meeting synthetic minor source requirements may be subject to GHG regulation.
4 Petitioners request that BACT analysis be conducted for GHGs unless the facility can demonstrate that it
5 will also restrict GHGs to below applicable thresholds.

6 **XIII. Failure to Estimate Emissions from Malfunction or Upset Conditions**

7
8 HDOH suggests that it is not required to estimate the emissions from malfunction or upset
9 conditions “since there is no default value for estimating emissions under these conditions.” HDOH
10 offers no legal justification or the basis and authority for failing to estimate emissions. Further, HDOH
11 offers to explanation of technical challenges to creating these estimates (even conservative estimates).

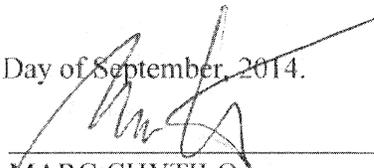
12
13 As Petitioners have noted, there is an extremely slim margin of error available for allowable
14 emissions at Hu Honua - 3.6 TPY for CO. This means that the addition of virtually any emissions
15 increase (not included in the initial calculations) will mean that the facility is in fact a major source.
16 Emissions from malfunction and upset conditions were not accounted for in the Permit’s calculations.
17 Monitoring and reporting of these emissions was not initially required by HDOH. Given that it is
18 commonly known that emissions are far higher during periods of malfunction and upset, it is likely that
19 even a small number of foreseeable malfunction or upset events will cause Hu Honua to exceed the
20 synthetic minor source thresholds. HDOH must either estimate these emissions, or provide a legal or
21 technical justification for failure to undertake the analysis.

22 **CONCLUSION**

23
24 In sum, the Permit is not in compliance with the Clean Air Act and applicable requirements in
25 State and Federal regulations. When all facility emissions are properly taken into consideration and
26 calculated using representative emissions factors, the Hu Honua facility constitutes a Major Source of
27 both CO and HAPs. The Revised Draft Permit lacks practically and federally enforceable conditions
28 establishing emissions limitations and testing necessary to assure compliance with applicable

1 requirements for a synthetic minor source. The State's process has thwarted public participation through
2 a series of "hide the ball" actions. Accordingly the Title V Permit is defective in failing to include
3 Major Source requirements including PSD review and case-by-case MACT determinations. Due to this
4 and other deficiencies, the Administrator must object to the Title V permit for the Hu Honua Bioenergy
5 Facility in Pepe'ekeo, Hawai'i.

6
7 Respectfully submitted on this 13rd Day of September, 2014.



8
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14 **EXHIBITS**

15 Exhibit 1: Trees, Trash and Toxics, How Biomass Energy has become the New Coal, Partnership
16 for Policy Integrity, April 2, 2014

17 Exhibit 2: Emails, Darin Lum, HDOH to Marc Chytilo, PPHE, April and May 2014
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