BEFORE THE ADMINISTRATOR

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

PRESERVE PEPE'EKEO HEALTH & ENVIRONMENT, )

v. )

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

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

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

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

On August 8, 2009, Hu Honua submitted an application for a new covered source permit to HDOH to re-start operations at the facility, which had previously ceased operations in December, 2004. On August 13, 2010, HDOH released a Draft Permit for public comment. On December 27, 2010, Hu Honua submitted a revised application to HDOH. On February 17, 2011, HDOH released a Revised Draft Permit for a second round of public comments. After the end of the second round of public comment period on March 21, 2011, HDOH made significant changes to the Revised Draft Permit before submitting the Proposed Permit to EPA on May 19, 2011. The EPA’s 45-day review period on the Proposed Permit ended on July 5, 2011. During the 45-day period, EPA did not object to the Proposed Permit, but Region XI’s Chief Permits Officer in the Air Division, Gerardo Rios, did send a letter to HDOH with substantial comments and suggested revisions on June 30, 2011 (“6/30/11 Letter”). On August 26, 2011, within the 60-day window following the end of EPA’s 45-day review period, Preserve Pepe’eko Health and Environment filed a petition to then-EPA Administrator Jackson to 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
On February 17, 2014 EPA issued the Order, to which HDOH responded on April 15, 2014 with a series of amendments to the Permit. According to the best information available to PPHE, construction of the Hu Honua facility has not been completed due to a series of legal, organizational and financial obstacles.

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

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

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

Below, Petitioners demonstrate that: i) HDOH failed to 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 its 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
actions concerning the Hu Honua facility, it is PPHE’s contention that HDOH is committed to avoid disclosing information necessary to facilitate meaningful public participation in this process.

1. Role of Public Participation

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

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

\(^1\) See Baughman v Bradford Coal Co., 592 F 2d 215, 218 (3d Cir. 1979) (the legislative history of the citizen suit provisions 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
suggests that adequate opportunities for public participation are "[o]ne of the purposes of the Title V program." Hu Honua Order quoting 57 Fed Reg. 32250, 32251 (July 21, 1992). Title V permitting processes and documentation must enable the public to understand the requirements to which the source is subject and whether the source is meeting those requirements. Id. Title V itself requires that DOH provide an adequate opportunity for public involvement in permitting processes. 40 CFR 70.7(h).

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

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

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

3 Further supporting this interpretation of the Act is the fact that citizen enforcement provisions require a member of the public exhaust administrative remedies, and meet the reasonable specificity requirement. Permit documents that are drafted, organized and/or distributed in such a way that impedes or prevents a non-expert member of the public from exhausting administrative remedies and meeting specificity requirements within the comment period render citizen enforcement unavailable in direct contradiction of the Act's 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."
in specific terms; vi) as of Sept. 11, 2014, the search results for the “Hu Honua” on the HDOH website gets “0” hits; and vii) failure to hold a public hearing despite clear evidence of public interest in and questions about the project, and confusion with document production and organization. See LOMC “Preliminary PPHE Comments” Letter April 14, 2014; and “PPHE Comments” letter dated May 9, 2014 (incorporated here by reference). Each of these actions alone are contrary to the spirit and letter of the law, and the process as a whole amounts to piecemealing of permit documentation and obstruction of public participation. HDOH’s course of conduct has rendered the public’s ability to “understand” and substantively comment on various revisions infeasible, and constitutes an action contrary to law.

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

---

5 A source is protected from suits brought by citizens unless the citizen participated during the public comment period on the source’s permit application. Further, exhaustion doctrine limits suits by these individuals to issues raised with particularity. If the documentation and organization of a permit process is not approachable by the public, these requirements may be 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. 

8
to insulate the lay public from the processes and has been uncooperative and antagonistic to counsel and
technical professionals seeking to obtain information about the substance and process of HDOH’s
rulemaking in this proceeding.

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

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

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

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

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

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

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

4. Mandatory Public Notification Procedures Were Ignored

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

(h) Public participation. Except for modifications qualifying for minor permit modification procedures, all permit proceedings, including initial permit issuance, significant 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) Notice shall be given: by publication in a newspaper of general circulation in the area where the source is located or in a State publication designed to give general public notice; to persons on a mailing list developed by the permitting authority, including those who request in writing to be on the list; and by other means if necessary to assure adequate notice to the affected public;
40 C.F.R. § 70.7(h).

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

In written comments, PPHE expressed concern and objection based on HDOH’s failure to notify any member of the public of its notice of permit action and public comment period. PPHE Letter, 4/14/14, page 2. In response, the HDOH Clean Air Branch Engineering Section responsible for administering the Title V program explained that its understanding of their role does not include any duty to maintain a list of states, "[the Department regulates and monitors air pollution sources…It conducts engineering analysis and permitting, performs monitoring and investigations, and enforces the federal and state air pollution regulations.]

Summary of Public Comments Received on Draft Air Permit for comment period March 14, 2014 to May 9, 2014 p. 4 of 9. The Department’s response states further that they “cannot generate a mailing list and notify only those commenters that objected to the Hu Honua facility or questioned the adequacy of a permit condition.” HDOH Responses to Comments, page 5 of 9.

PPHE’s comment made not such request, only that HDOH should have a mailing list and PPHE should be on it. While there was some back and forth, it turns out that HDOH simply does not maintain a mailing list as contemplated by state and federal requirements.

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

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

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

V. Permit Limitations Are Not Practically Enforceable

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

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

HDOH relied on unsubstantiated and highly questionable emissions factors in calculating the Hu Honua facility’s PTE and allowing use of a synthetic minor permit assuming the permit emissions cap would be reached at the 12 month mark, when the much higher actual emissions rates will require periods of extended shutdowns to meet 12 month rolling emissions limits. Petitioner’s concerns are twofold. First, the facility will reach or exceed the emissions limits for CO and/or NOx in less, potentially much less than twelve months, which will in turn subject the community of Pepe’ekeo to variable pulses of higher concentrations of air pollution that will impair human health and well being, and which would not be permitted under PSD. Second, Petitioner is concerned with if, when and how HDOH will respond when it is ascertained that the Hu Honua facility’s emissions are substantially higher than calculated by the Applicant in their submittal. Since the emissions factors are not supported by actual experience with similar facilities and substantially understate Hu Honua facility emissions per unit of electricity when compared to the emissions from similar facilities operating elsewhere, the Hu Honua facility can be expected to have to shut down during a substantial portion of each 12 month 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.
Further, the Hu Honua facility may be constrained in its ability to shut down. Petitioners note
that the Hu Honua facility has entered into a power supply agreement with local consumer electricity
providers with minimum power supply and specific timing expectations concerning the Hu Honua
facility’s operations that create contractual incentives or requirements to provide a certain amount of
electricity to help balance on the grid.

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

A permit is enforceable as a practical matter (or “practically enforceable”) if permit conditions
establishes a clear legal obligation for the source and/or allows compliance to be verified and enforced
under, for example, section 113(a) of the Act. EPA suggests that “practical enforceability of a permit
should be reviewed to assure the public’s and EPA’s ability to enforce the Title V permit is maintained,
and to clarify for the Title V source its obligations under the permit.” EPA Region IX “Guidelines:

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

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

2. Revised Permit Emissions Limits Are Not Practically Enforceable

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

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

---

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 Oxynol, LLC*, Petition No. II-2000-07, Order on Petition (May 2, 2001), at 21.
shall monitor the emissions units weekly in accordance with Method X." By leaving the monitoring protocol entirely unknown, the permit is not only practically unenforceable, but it undermines public confidence in HDOH's commitment to protect public health and welfare.

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

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

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

---

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

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

Petitioners and EPA have noted in communications with HDOH that the CO PTE of 246.4 tpy and was “very close” to the 250 tpy major source threshold—just 3.6 tpy shy of emissions that would require application of Hu Honua to comply with PSD for CO and NOx. Id. EPA commented that the proposed “CO emission limit proposed by CAB [was] among the lowest EPA has ever seen nationwide 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
CO emissions than stoker boilers.” *Id.* The initial predictions for CO and NOx PTE excluded SSM and upset condition emissions, which are known to be substantially greater than steady state emission rates. With the addition of virtually any emissions that were not included in the initial predictions, e.g. emissions from the generator, SSM emissions and/or upset events, will result in Hu Honua properly being classified as a major source and subject to PSD. Importantly, since the initial calculations were released by HDOH, the permit has been revised to add a variety of new emissions sources, but HDOH and the applicant continue to assert that the facility can remain below major source thresholds. The weight of the evidence strongly suggests otherwise.

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

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

---

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

4. Compliance Provisions Ignore EPA Order Mandates

i. Shutdown Emissions Projections, Calculations and Methodology is Inadequate

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

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

---

Table 3: Emissions increase significantly during startup/shutdown

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Maintenance, Startup, and Shutdown Emissions (lb/hr)</th>
<th>MSS Emissions as % of Normal Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>CO</td>
<td>54</td>
<td>96.8</td>
</tr>
<tr>
<td>VOC</td>
<td>6.1</td>
<td>16.1</td>
</tr>
<tr>
<td>PM10</td>
<td>22.1</td>
<td>168.9</td>
</tr>
<tr>
<td>SO2</td>
<td>7.9</td>
<td>5.6</td>
</tr>
<tr>
<td>HCl</td>
<td>1.5</td>
<td>7.65</td>
</tr>
<tr>
<td>H2SO4</td>
<td>0.2</td>
<td>0.4</td>
</tr>
<tr>
<td>NMCO</td>
<td>10.7</td>
<td></td>
</tr>
</tbody>
</table>

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 cannot 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 15 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 system. The annual PSD NAAQS limits for CO, SO2, NOx, and HGS include emissions during all periods of operation including startup, shutdown and malfunction; thus, there is incentive for facilities to begin operation of the control devices as soon as possible to ensure compliance with the emission limits.”

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” NOx, making it more difficult to remain within NOx emission limits.
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 equipment required. See for example:

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

<table>
<thead>
<tr>
<th>Plant</th>
<th>State</th>
<th>MMBtu</th>
<th>MW</th>
<th>Boiler</th>
<th>CO control</th>
<th>Cap rate</th>
<th>CO (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pinal Biomass Power, Maricopa</td>
<td>AZ</td>
<td>610</td>
<td>30</td>
<td>Stoker</td>
<td>none</td>
<td>0.13</td>
<td>240</td>
</tr>
<tr>
<td>DTE Stetson, Stetson</td>
<td>CA</td>
<td>699</td>
<td>57</td>
<td>Stoker</td>
<td>and cat</td>
<td>0.08</td>
<td>245</td>
</tr>
<tr>
<td>U.S. Ecolene Poli, Fort Meade</td>
<td>FL</td>
<td>740</td>
<td>56</td>
<td>FBB</td>
<td>none</td>
<td>0.08</td>
<td>246</td>
</tr>
<tr>
<td>ADAGE, Hamilton City</td>
<td>FL</td>
<td>814</td>
<td>56</td>
<td>FBB</td>
<td>none</td>
<td>0.07</td>
<td>245</td>
</tr>
<tr>
<td>Green Energy Partners, Lithonia</td>
<td>GA</td>
<td>186</td>
<td>10</td>
<td>Stoker</td>
<td>none</td>
<td>0.20</td>
<td>249</td>
</tr>
<tr>
<td>North Star Jefferson, Wapato</td>
<td>GA</td>
<td>221</td>
<td>22</td>
<td>FBB</td>
<td>none</td>
<td>0.18</td>
<td>249</td>
</tr>
<tr>
<td>Greenleaf Environmental Solutions, Cumming</td>
<td>GA</td>
<td>372</td>
<td>25</td>
<td>FBB</td>
<td>none</td>
<td>0.15</td>
<td>250</td>
</tr>
<tr>
<td>Greenway Renewable Power, LaGrange</td>
<td>GA</td>
<td>719</td>
<td>50</td>
<td>none</td>
<td>none</td>
<td>0.08</td>
<td>249</td>
</tr>
<tr>
<td>Plant Cart, Carmelville</td>
<td>GA</td>
<td>400</td>
<td>25</td>
<td>FBB</td>
<td>none</td>
<td>0.14</td>
<td>249</td>
</tr>
<tr>
<td>Wiregrass Valdosta</td>
<td>GA</td>
<td>626</td>
<td>45</td>
<td>FBB</td>
<td>none</td>
<td>0.09</td>
<td>247</td>
</tr>
<tr>
<td>Lancaster Energy Partners, Thomasson</td>
<td>GA</td>
<td>215</td>
<td>15</td>
<td>Stoker</td>
<td>none</td>
<td>0.26</td>
<td>249</td>
</tr>
<tr>
<td>Lancaster Energy Partners, Macon</td>
<td>GA</td>
<td>220</td>
<td>16</td>
<td>Stoker</td>
<td>none</td>
<td>0.26</td>
<td>249</td>
</tr>
<tr>
<td>Fitzgerald Renewable Energy, Fitzgerald</td>
<td>GA</td>
<td>908</td>
<td>60</td>
<td>none</td>
<td>none</td>
<td>0.07</td>
<td>249</td>
</tr>
<tr>
<td>Piedmont Green Power, Barnesville</td>
<td>GA</td>
<td>657</td>
<td>35</td>
<td>Stoker</td>
<td>none</td>
<td>0.08</td>
<td>227</td>
</tr>
<tr>
<td>Hu Honua, Papakaha</td>
<td>HI</td>
<td>407</td>
<td>22</td>
<td>Stoker</td>
<td>none</td>
<td>0.14</td>
<td>246</td>
</tr>
<tr>
<td>Liberty Green, Scrubberg</td>
<td>IN</td>
<td>407</td>
<td>32</td>
<td>FBB</td>
<td>none</td>
<td>0.13</td>
<td>225</td>
</tr>
<tr>
<td>ecoPower, Hazard</td>
<td>KY</td>
<td>745</td>
<td>45</td>
<td>FBB</td>
<td>none</td>
<td>0.08</td>
<td>240</td>
</tr>
<tr>
<td>Menlo Energy Biomass Energy, Menlo</td>
<td>MI</td>
<td>493</td>
<td>15</td>
<td>FBB</td>
<td>none</td>
<td>0.11</td>
<td>245</td>
</tr>
<tr>
<td>Sawyer Electric Co., Green</td>
<td>MI</td>
<td>560</td>
<td>45</td>
<td>FBB</td>
<td>none</td>
<td>0.10</td>
<td>245</td>
</tr>
<tr>
<td>Perryville Renewable Energy, Perryville</td>
<td>MO</td>
<td>480</td>
<td>33</td>
<td>FBB</td>
<td>none</td>
<td>0.11</td>
<td>225</td>
</tr>
<tr>
<td>RDU Energy, Black River, Fort Drum, NY</td>
<td>284</td>
<td>19</td>
<td>Stoker</td>
<td>none</td>
<td>0.20</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>Big Green Sustainable Energy, LAhips</td>
<td>OR</td>
<td>353</td>
<td>25</td>
<td>none</td>
<td>0.16</td>
<td>247</td>
<td></td>
</tr>
<tr>
<td>Klamath Bioenergy, Klamath</td>
<td>OR</td>
<td>459</td>
<td>45</td>
<td>FBB</td>
<td>none</td>
<td>0.11</td>
<td>230</td>
</tr>
<tr>
<td>EDF Envirotech, Marysville</td>
<td>SC</td>
<td>275</td>
<td>18</td>
<td>Stoker</td>
<td>none</td>
<td>0.20</td>
<td>241</td>
</tr>
<tr>
<td>EDF Almaden, Almaden</td>
<td>SC</td>
<td>275</td>
<td>18</td>
<td>Stoker</td>
<td>none</td>
<td>0.21</td>
<td>250</td>
</tr>
<tr>
<td>Lobolly Green Power, Newberry</td>
<td>SC</td>
<td>675</td>
<td>53</td>
<td>Stoker</td>
<td>and cat</td>
<td>0.08</td>
<td>222</td>
</tr>
<tr>
<td>Orangeburg County Biomass,</td>
<td>SC</td>
<td>525</td>
<td>35</td>
<td>FBB</td>
<td>none</td>
<td>0.11</td>
<td>250</td>
</tr>
<tr>
<td>NOVI Energy, South Boston</td>
<td>VA</td>
<td>629</td>
<td>50</td>
<td>Stoker</td>
<td>none</td>
<td>0.09</td>
<td>236</td>
</tr>
</tbody>
</table>

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

4. Summary of Objections

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

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

VI. Emissions Limitations for HAPs Not Federally or Practically Enforceable

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

As noted above, defects in F.4 protocol apply with equal vigor to HAPs. In order to calculate individual and total HAPs emissions, E.15.b.iii suggests wood sampling and analysis per E.2.c.iii, which in turn depends on the monthly sampling for HHV of the fuel and quarterly sampling for chlorine
content of the fuel according to the “protocol” in F.4. However, as discussed above, the F.4 protocol is absent. Without details about the protocol quality and frequency, the Permit is not practically enforceable for HAPs and EPA should mandate MACT procedures.

2. Compliance Provisions Ignore EPA Order Mandate

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

VII. Buffet Style Emissions Factors Unacceptable

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

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

Petitioners urge EPA to categorically reject any justification of alternatives to AP-42 based on 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
operator may need to use a date source other than AP-42 is where the data is more reliable or more applicable at Hu Honua.

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

VIII. Permit Must Preclude Affirmative Defenses

Additionally, the permit should explicitly preclude the use of any affirmative defenses related to malfunction or upset conditions that result in exceedances. The policy justification that is the foundation of permitting affirmative defenses is not present here. EPA has, at times, permitted the inclusion of an affirmative defense to civil penalties for violations caused by malfunctions in an effort to create a system that incorporate some flexibility, recognizing that there is a tension, inherent in many types of air regulation, to ensure adequate compliance while simultaneously recognizing that despite the most diligent of efforts, emissions standards may be violated under circumstances entirely beyond the control of the source.” Unlike circumstances where exceedances are unavoidable (or at least excusable) even by the most diligent operator, synthetic minor permitted sources that affirmatively place their facilities in a position where emissions are pledged to stay below an emissions limit must accept heightened consequences from emissions in excess of permit and Major Source thresholds. At Hu Honua, the operator should accept that even minor malfunctions or rare upset conditions will likely cause the facility to exceed permit thresholds. The operator could at this juncture protect itself from agency or citizen enforcement actions by undertaking full major source criteria and HAP analysis. Given the option currently available to the operator at Hu Honua, the permit should explicitly preclude the use of affirmative defenses for the entirely foreseeable exceedances and avoidable outcome.
IX. F6 Monitoring Report Requirements Are Not Practically Enforceable

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

X. Monitoring, Recording and Reporting Flow Meter Data

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

XI. E6 continues to be ambiguous

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

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

XIII. Failure to Estimate Emissions from Malfunction or Upset Conditions

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

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

**CONCLUSION**

In sum, the Permit is not in compliance with the Clean Air Act and applicable requirements in State and Federal regulations. When all facility emissions are properly taken into consideration and calculated using representative emissions factors, the Hu Honua facility constitutes a Major Source of both CO and HAPs. The Revised Draft Permit lacks practically and federally enforceable conditions establishing emissions limitations and testing necessary to assure compliance with applicable
requirements for a synthetic minor source. The State's process has thwarted public participation through a series of “hide the ball” actions. Accordingly the Title V Permit is defective in failing to include Major Source requirements including PSD review and case-by-case MACT determinations. Due to this and other deficiencies, the Administrator must object to the Title V permit for the Hu Honua Bioenergy Facility in Pepe'ekeo, Hawai'i.

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

MARC CHYTILO
JESSE SWANHUYSER
LAW OFFICE OF MARC CHYTILO
Attorneys for Petitioner
PRESERVE PEPE'EKEO HEALTH & ENVIRONMENT

EXHIBITS

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

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