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ENVIRONMENTAL LAW

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Air Division, AIR - 3  
U.S. EPA, REGION 9

February 4, 2008

VIA FAX (202 501-1450) AND HAND DELIVERY

Stephen L. Johnson, Administrator  
US Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Avenue  
Room 3000  
Mail Code 1101A  
Washington, DC 20460

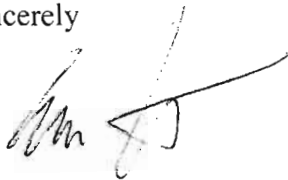
Re: Petition Pursuant to Section 505(b)(2) of the Clean Air Act  
Regarding Covered Source Permit No. 0625-01-C Proposed for the  
Tradewinds Veneer Mill in Ookala Hawaii

Dear Administrator Johnson,

Please find enclosed the petition from Susie Collins and Scott Enright, objecting to the Title V permit (Covered Source Permit No. 0625-01-C) currently under consideration by the Environmental Management Division of the Clean Air Branch, Hawaii Department of Health, for the Tradewinds Veneer Mill in Ookala Hawaii.

The permitting authority, the permittee, and EPA Region 9 have been copied on this petition. If you have any questions about this petition, please do not hesitate to contact me.

Sincerely



Marc Chytilo

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9 Attorney for Petitioners  
10 Susie Collins and Scott Enright

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13 **BEFORE THE ADMINISTRATOR**  
14 **UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

15 **SUSIE COLLINS and SCOTT ENRIGHT,** )  
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Application for Initial Permit No. 0625-01  
Covered Source Permit No. 0625-01-C

18  
19 **PETITION REQUESTING THAT THE ADMINISTRATOR OBJECT TO**  
20 **ISSUANCE OF THE PROPOSED TITLE V OPERATING PERMIT FOR**  
21 **TRADEWINDS FORESTRY PRODUCTS**

22 Pursuant to Section 505(b)(2) of the Clean Air Act ("CAA"), 40 C.F.R. § 70.8(d), and applicable  
23 Federal and State regulations, Susie Collins and Scott Enright hereby petition the Administrator of the  
24 U.S. Environmental Protection Agency ("EPA") to object to the proposed Title V operating permit  
25 ("Title V permit") under consideration by the Environmental Management Division of the Clean Air  
26 Branch, Hawaii Department of Health ("DOH"), for the Tradewinds Veneer Mill proposed in Ookala,  
27 Hawaii. Petitioners urge the objection of the EPA Administrator because Tradewinds' permit fails to

1 ensure compliance with the Federal Clean Air Act, State permitting requirements and other applicable  
2 requirements; EPA is under a duty to object under such circumstances. See 42 USC § 7661d (b)(1)  
3 CAA § 505 (b)(1), 40 C.F.R. § 70.8(c).  
4

5 This petition is timely filed within sixty days following the end of U.S. EPA's 45-day review  
6 period as required by Clean Air Act § 505(b)(2) and 40 C.F.R. § 70.8 (d); EPA is required to grant or  
7 deny this petition within 60 days.

8 It is not permissible for EPA to defer to state authority regarding the adequacy of a Title V  
9 permit; if the permit violates the CAA, the Administrator must object. CAA § 505(b)(2); *New York*  
10 *Public Interest Research Group v. Whitman* (2d Cir. 2003) 321 F.3d 316, 333, quoting 136 Cong. Rec.  
11 S16, 895, S16, 944 (1990) (“the Administrator is required to object to permits that violate the Clean Air  
12 Act. This duty to object to such permits is a nondiscretionary duty. Therefore, in the event a petitioner  
13 demonstrates that a permit violates the Act, the Administrator must object to that permit.”)  
14

15 A Title V permit violates the CAA if it fails to ensure compliance with ‘applicable requirements’  
16 (42 USC § 7661c (a), CAA § 504 (a)), including but not limited to: any standard or other requirement  
17 under sections 111 and 112 of the Act; any standard or other requirement provided for in the applicable  
18 implementation plan; and any standard or other requirement of the regulations promulgated to protect  
19 stratospheric ozone under title VI of the Act (40 C.F.R. § 70.2).  
20

21 Tradewinds’ draft Title V permit violates the CAA in that it fails to ensure compliance with  
22 applicable requirements in section 112 of the CAA, Hawaii rules limiting emissions of hazardous air  
23 pollutants (HAPs), and MACT requirements contained in 40 C.F.R. § 63.43. The Permit further violates  
24 the CAA in failing to provide for monitoring capable of ensuring compliance with emissions limitations  
25 for HAPs. Moreover the Permit fails to properly identify and consider all Project emissions of VOCs  
26 and NOx, impermissibly disregarding emissions during periods of start-up, shutdown and malfunction,  
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1 and fails to ensure compliance with BACT requirements for NO<sub>x</sub> and VOCs. The failure to properly  
2 quantify the total Project emissions avoids the proper application of New Source Review requirements,  
3 contained in the Hawaii Administrative Rules (HAR) Title 11, Chapter 60.1, that properly apply to this  
4 Project.  
5

6 In light of these numerous permit deficiencies, construction and operation of the Tradewinds  
7 facility violates the Hawaii SIP, the State's Title V permitting program requirements, and the minimum  
8 standards for permits established under the Act and Part 70 regulations, and poses a risk to human health  
9 and the quality of Hawaii's environment. Because the proposed permit is not in compliance with the  
10 applicable requirements and the requirements of Part 70, the EPA is under a duty to object to this  
11 Permit, and must direct that this permit application be subject to the state's Title V permitting process as  
12 a Major Source.  
13

#### 14 **BACKGROUND**

15 The Tradewinds Veneer Mill and Cogeneration facility ("Tradewinds Facility") will use mainly  
16 eucalyptus wood to make veneer, then utilize the waste eucalyptus wood and other fuels to run a power  
17 generating facility; major equipment includes a veneer dryer and a cogeneration boiler. Based on  
18 generic AP-42 emissions factors, air pollution emissions from the facility are expected to be  
19 considerable, including HCl emissions exceeding CAA and Hawaii Administrative Rules (HAR) Major  
20 Source thresholds for hazardous air pollutants and criteria pollutants. Moreover, published research  
21 establishes that combustion of eucalyptus wood results in considerably higher emissions of HCl than  
22 associated with other woods. The fuel sources used to develop the AP-42 emissions factors for wood  
23 combustion did not include eucalyptus. The use of eucalyptus wood as a fuel source entails health  
24 effects largely undocumented by current scientific research. Epidemiological and public health studies  
25 suggest that eucalyptus wood burning contributes significantly to asthma and other respiratory illnesses.  
26  
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1 The town of Ookala is a hamlet of 94 homes, located on the Hamakua coast on the Island of  
2 Hawaii. The Tradewinds facility is proposed to be located in the midst of this residential community.  
3 As evidenced from the public comments and testimony, most residents of Ookala oppose the proposed  
4 permitting of the facility, citing concerns about health, safety, welfare and overall quality of life  
5 concerns. Many residents of Ookala experience respiratory illnesses including asthma; many residents  
6 of Ookala are elderly, and a considerable portion of the community are ethnic and/or cultural minorities.  
7 The Tradewinds facility threatens the quality of Ookala's air, the integrity of its natural ecosystems, and  
8 the health of its population. Significantly, additional permit controls mandated by Federal and State  
9 authority could alleviate these concerns.  
10  
11

12 Petitioners are residents of Ookala who are deeply concerned that deficiencies in the Title V  
13 operating permit for the Tradewinds facility does not ensure compliance with requirements of the CAA  
14 and the Hawaii permitting program and that operation of the Tradewinds facility will adversely and  
15 disproportionately impact air quality in Ookala, unnecessarily endangering the health, safety and welfare  
16 of themselves and their community. Petitioners and other concerned residents of Ookala raised  
17 numerous objections to the adequacy of the Title V permit proposed for the Tradewinds facility during  
18 state proceedings; this petition is based on those objections that were raised with reasonable specificity  
19 during the public comment period.  
20

21 **GROUNDS FOR OBJECTION**

22 Following are the specific objections that Petitioners have to the adequacy of Tradewinds'  
23 proposed Title V permit. These objections make clear that the permit is not in compliance with the  
24 Clean Air Act and the state's Title V permitting program, and therefore EPA must object to the proposed  
25 permit. 40 C.F.R. § 70.8(c); *Whitman, supra*, 321 F.3d at 333.  
26  
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1           1.    The Permit Fails to Ensure Compliance with Hazardous Air Pollutant Emission Limits

2           The Clean Air Act defines a Major Source of hazardous air pollutants as “any stationary  
3 source...that emits or has the potential to emit ...10 tons per year of any hazardous air pollutant or 25  
4 tons per year or more of any combination of hazardous air pollutants [“HAPs”].” 42 USC § 7412 (a)(1);  
5 CAA § 112 (a)(2). Hawaii uses the same definition. HAR § 11-60-1 (defining “Major Source”). The  
6 Tradewinds Facility qualifies as a Major Source of HAPs, as defined by the CAA and the HAR, on two  
7 independent grounds: (a) according to the Project Application, the facility has the potential to emit  
8 11.01833 tons per year of Hydrogen chloride, a HAP; and (b) the facility has the potential to emit 25  
9 tons per year or more of a combination of hazardous air pollutants. As such the Permit must ensure  
10 compliance with requirements applicable to Major Sources of HAPs; Tradewinds’ permit fails in this  
11 regard.  
12  
13

14                   a.   The Tradewinds Facility is a Major Source of HCl, a Listed HAP

15           Hydrogen chloride (HCl, also referred to as hydrochloric acid or chloride) is a hazardous air  
16 pollutant listed in section 112 (b)(1) of the Clean Air Act. Tradewinds has the potential to emit 11.02  
17 tons per year of HCl (Permit Application Review, Covered Source Permit (CSP) No. 0625-01-N,  
18 Application No. 0625-01 (“Permit Application Review”), Table 13 (Boiler HAP Emissions – Wood  
19 Fuel). Therefore, under the plain terms of the CAA and HAR, Tradewinds is a Major Source of HAP  
20 emissions. CAA § 112 (a)(2); HAR § 11-60-1 (defining “Major Source”). The Permit Application  
21 Review impermissibly disregarded this fact, stating “[t]he facility is not subject to the following subparts  
22 because the facility emissions are below the HAP major source threshold: Subpart DDDD – National  
23 Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products[; s]ubpart  
24 DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and  
25 Institutional Boilers and Process Heaters.” See Permit Application Review, p. 15, *emphasis in original*.  
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1           The apparent disregard for the fact that potential HCl emissions for the Tradewinds facility  
2 exceed the threshold for HAPs, is not adequately explained in the permit application materials. The  
3 explanation is not based on any actual data, rather on the allegation that the AP-42 factors are not based  
4 on virgin eucalyptus wood, and therefore should be disregarded. Tradewinds initially utilized NCASI  
5 factors, but these industry-generated standards were rejected by DOH. *See* 4/20/07 Memo from April  
6 Matsumura to Don Bryan. DOH requested AP-42 factors be utilized, but this was selectively  
7 disregarded in the case of HCl, as stated in the Permit Application Review document, “[s]ince no  
8 manufacturer data on HAP emissions were available, boiler HAP emissions from wood fuel combustion  
9 were based on EPA emission factors from AP-42, Section 1.6, *Wood Residue Combustion in*  
10 *Boilers...*In the interest of providing the most conservative analysis, *the DOH requested that HAP*  
11 *calculations be based on AP-42 factors. All HAP emission calculations were based on the AP-emission*  
12 *factors with the exception of HCl.* Permit Application Review, p. 9, *emphasis added*.

15           There is no legitimate justification is given for the use of a lower emissions factor for HCl, in  
16 fact Tradewinds admits it was done expressly for the purpose of avoiding classification as a Major  
17 Source of HAPs. *See* 4/24/07 Email from Don Bryan to April Matsumura; *see also* 9/12/07 Letter from  
18 Don Bryan to Nolan Hirai at DOH. Regardless of any potential justification, there is substantial  
19 evidence in the record that the HCl emissions will be higher than described in the application. The  
20 applicant’s manipulation of emissions factors results in the facility avoiding numerous requirements  
21 applicable to major HAP sources, which are necessary and applicable to ensure that HAP emission  
22 levels do not exceed safe levels. The failure of the Permit to include such requirements results in a  
23 seriously flawed permit that is wholly incapable of ensuring compliance with section 112 of the CAA  
24 and protecting the health and welfare of the residents of Ookala.  
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1 i. The Applicant’s Proposed Emission Factors Are Not Representative of  
2 Existing Emissions Data for Eucalyptus Wood Combustion

3 A. AP-42’s Emissions Factors May Not be Lowered

4 As discussed *supra*, Tradewinds uses an emission factor for HCl that is substantially lower than  
5 the emission factor contained in AP-42, despite repeated admonitions from the DOH not to do so. They  
6 offer no empirical evidence to support this deviation, reciting their unsupported assertion that the data  
7 set used to develop the AP-42 factors “may contain plastic from construction waste or that burn treated  
8 woods that contain resins.” Initial Revised Application, p. 3-13. This speculation has no foundation.  
9 Tradewinds does not establish that the data set used to establish the AP-42 HCl emission factor differs in  
10 any relevant sense from the data used to develop the emission factors for other sources. Tradewinds  
11 does not challenge the application of AP-42 for any other wood combustion constituents – only the  
12 constituent that is close to the HAP Major Source threshold – HCl. Tradewinds’ attempt to “cherry  
13 pick” emissions factors cannot be condoned – they accepted and applied AP-24 emissions factors for all  
14 other pollutants, but unilaterally applied a much lower emissions factor for the one pollutant that would  
15 cause the facility to exceed the Major Source threshold. Tradewinds’ attempt to manipulate the level of  
16 review violates the Act, HAR, and defeats important review processes intended to protect Ookala  
17 residents.  
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21 B. Peer-Reviewed Technical Evidence Indicates Much Higher HCl  
22 Emissions Rates from Eucalyptus Wood Combustion

23 A study published in the Journal of Environmental Science and Technology compares emission  
24 rates of eucalyptus, pine, and oak during fireplace combustion. Schauer, J., et. al, Measurement of  
25 Emissions from Air Pollution Sources. 3. C1-C29 Organic Compounds from Fireplace Combustion of  
26 Wood, *Environ. Sci. Technol.* 2001 35, 1716-1728. The results of the study show that eucalyptus wood  
27 emits chloride levels eight to nine times that of pine or oak. *Id.*, Table 1.  
28



1 Further, the Phyllis database (<http://www.ecn.nl/phyllis/>), which analyzes the composition of  
2 various types of wood, including several species of eucalyptus, confirms the conclusions of the Schauer  
3 study that eucalyptus wood combustion emissions are not represented by typical North American wood  
4 combustion emissions factors. Tradewinds uses the Phyllis data selectively to artificially lower its  
5 calculated average for the chloride content for ‘other hardwoods and softwoods’; however as pointed out  
6 by a commenter, two tree species unrepresentative of wood fuels typically burned in American boilers,  
7 that happen to have relatively high chloride levels, were included in Tradewinds’ ‘average’. Dr. Tawn  
8 Keeney, Public Comment Letter, (11/6/07)(“Keeney Comment”), p.3. This skewed the data, obfuscates  
9 the fact that Phyllis data indicates the average chloride levels for eucalyptus species contain 3 times the  
10 chloride levels of the untreated woods used to fire the boilers utilized in developing the AP-42 emissions  
11 factors. *Id.*

14 The data from both the Schauer study and the Phyllis database show that the Tradewinds facility  
15 is likely to emit HCl at levels exceeding the 10 tpy threshold, and thus that the facility is a Major Source  
16 of HAPs. *See* CAA § 112 (a)(2); HAR § 11-60-1 (defining “Major Source”).

18 The state identified this issue during the process. Concern over Tradewinds’ lowering of the  
19 emission factor for HCl below the AP-42 factor in light of existing data showing HCl emissions from  
20 eucalyptus to be considerably higher than the AP-42 factor, was expressly articulated by April  
21 Matasmura of DOH in an email to Don Bryan, Tradewinds President and CEO, which states:

22 Don, It’s the chloride I’m concerned with. This research shows much higher Cl for eucalyptus  
23 than other woods...not that I “like this data.” I understand that wood chemistry will vary  
24 depending on soil constituents, but just need you to be careful in factoring in enough of a safety  
25 factor in your proposed HCl limit. Upon what is your HCl limit based? April.

26 6/1/07 Email.

27 The research April Matasmura refers to above is the Schauer study, which she attaches to the  
28 above email. The concern expressed by DOH is echoed and amplified in the public comments,

1 particularly that of Dr. Tawn Keeney. Dr. Keeney expressed significant concern over the HCl emissions  
2 from eucalyptus wood, and Tradewinds failure to heed the Schauer and Phyllis data. Keeney Comment,  
3 pp. 3-4. Following a detailed analysis of the existing data, Dr. Keeney concludes “Tradewinds facility  
4 must be considered a Major Stationary Source as the Chloride emissions will exceed, if not far exceed  
5 the 10 tons limit. There is no way with the above data...that the Department of Health can defend  
6 granting them Synthetic Minor Source status and testing after the facility is built.” *Id.*, p. 4.  
7

8 The proposed permit for the Tradewinds Facility fails to acknowledge that that the magnitude of  
9 potential HCl emissions generate additional CAA requirements. The proposed permit ignores the  
10 potentially significant health risk associated with the Project’s potential HCl emissions. The DOH erred  
11 in following the permit applicant’s suggestion to employ artificially reduced emissions factors when  
12 calculating the project’s HCl emissions. This level of manipulation by the permit applicant cannot be  
13 ignored or sustained by EPA, who is tasked under the CAA to oversee State air permitting practices and  
14 protecting our Nation’s environmental health, including the health of its citizens in Ookala.  
15

16  
17 ii. Proposed Testing Fails to Ensure Compliance with Applicable Regulations

18 Requirements established at 40 C.F.R. §§70.6 (a)(3) and 71.6 (a)(3) “specifically note that each  
19 permit shall contain periodic monitoring sufficient to yield reliable data from the relevant time period  
20 that are representative of the source’s compliance with the permit.” EPA Periodic Monitoring Guidance,  
21 pp. 3-4. HAR § 11-60.1-90 (7)(B). The monitoring provided for in the Tradewinds permit consists  
22 exclusively of initial and annual source performance testing. Proposed Permit, Attachment II, p. 2.  
23

24 Tradewinds will power its facility with waste eucalyptus wood. The veneer process involves  
25 cutting away and discarding as waste the bark and external portions of the logs until a smooth, round  
26 uniform column of wood is achieved for peeling into veneer sheets. Thus the waste wood used to fuel  
27 the facility is composed disproportionately of bark and other differing portions of the tree. This leads to  
28

1 irregularity in the oil content and constituent concentrations in the fuel stock. As such, a single test is  
2 not likely to be representative of on-going operational emissions, necessitating more frequent emissions  
3 monitoring. Furthermore, Tradewinds has stated that chloride composition of trees is a function of the  
4 soil it is growing in and the elevation at which it is found. Revised Initial Application, p. 3-13.  
5  
6 Moreover, the Phyllis database shows a wide variation in the chloride content between species of  
7 eucalyptus. Dr. Tawn Keeney, Public Comment Letter, 11/6/07. Stands of trees that Tradewinds owns  
8 are comprised of several different species of Eucalyptus, further confirming the variability of the fuel  
9 stock. *Id.* As stated during the public comment process “[g]iven this potential wide variation in the fuel  
10 source chloride content, it is not reasonable to suggest that a single initial test or even a yearly test would  
11 be reflective of the continuous emissions of chloride from this mill. This wide variation demands  
12 continuous testing.” *Id.*

14 HAR § 11-60.1-90 (7)(B) and applicable federal regulations require that permits contain testing  
15 and monitoring requirements sufficient to yield reliable data that is representative of the source’s  
16 compliance with its permit. The infrequent testing provided for in Tradewinds proposed permit can not  
17 be expected to yield reliable data given the considerable variability in eucalyptus wood constituents and  
18 their emissions levels, and therefore does not ensure compliance with HAR § 11-60.1-90 (7)(B) and  
19 applicable federal regulations.  
20

21 Further, because the proposed Title V permit proposes testing that is highly unlikely to yield  
22 reliable data representative of the facility’s compliance with permit conditions, it fails to ensure the  
23 facility’s compliance with emission limits.  
24

25 b. The Facility is a Major Source Based on Total HAPs

26 Tradewinds’ application review reported total facility HAPs emissions of 24.37 tpy, very close to  
27 the HAP Major Source threshold of 25 tons. *See* Permit Application Review, p. 13. According to the  
28

1 Permit Application, the total annual emissions from the facility are 24.9 tpy, 0.1 tpy under the threshold.  
2 Addendum to Revised Initial Application, Table 4, p. 5-6. There is substantial evidence, including  
3 concerns expressed by the State, that total HAPs for the facility are likely to be much higher, and thus  
4 that the facility should be considered a Major Source under the CAA. For example, April Matsumura of  
5 DOH contended that Tradewinds is a major source for HAPs under the AP-42 emission factors, in email  
6 correspondence to Don Bryan dated April 5, 2007: "It is our policy to calculate potential emissions  
7 based on maximum capacity, continuous operation, and worst-case scenario. When this is done, the  
8 proposed facility is shown to be a major source of HAPs according to EPA AP-42 emission factors (Hcl  
9 = 11 tons, total HAPs = 30 tons)."

10  
11  
12 As discussed previously, even the AP-42 factors may be lower than actual expected emissions  
13 from Tradewinds' proposed fuel source. It is entirely inappropriate for Tradewinds to disregard DOH  
14 policy and base its calculations on a less-than-worst-case scenario. This is particularly true considering  
15 Tradewinds has provided no actual evidence that its emissions are likely to correlate with the much  
16 lower emission factor for HCl utilized in the proposed permit. When properly classified as a Major  
17 Source of HAPs, a plethora of requirements become applicable to the facility; the proposed Title V  
18 permit entirely fails to ensure compliance with these Major Source requirements.  
19

20 1. The Permit fails to ensure compliance with applicable HAR requirements

21 HAR §11-60.1-179 prohibits the emission of HAPs from any stationary source in quantities that  
22 contribute to an ambient air concentration which endangers human health, and provides that provides  
23 that any new major source of hazardous air pollutants must demonstrate that emissions of HAPs from  
24 the source will not contribute to any significant ambient concentrations of HAPs. In improperly  
25 classifying the Tradewinds facility as a minor source of HAPs, the Permit fails to ensure compliance  
26 with the above requirement of the HAR.  
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1           2.    The Permit Fails to Ensure Compliance with MACT Requirements

2           As an owner or operator constructing a Major source of HAPs, Tradewinds is required to obtain  
3 from the permitting authority (DOH), an approved MACT determination according to one of the review  
4 options specified in the applicable regulation. 40 C.F.R. § 63.43; HAR §§ 11-60.1-174 and 11-60.1-  
5 175. Because Tradewinds has artificially reduced its HAP emission thresholds to avoid Major source  
6 classification, no MACT determination was sought.  
7

8           3.    The Permit Understates VOC Emissions

9           VOCs are listed as criteria pollutants under HAR § 11-60.1-1. The veneer dryer at the  
10 Tradewinds facility is a source of VOCs, and the Permit fails to properly quantify VOC emissions. As  
11 stated by Petitioner Scott Enright, “[t]here does not appear to be justification that confirm[s] the  
12 unconservative assumption that VOCs’ will be below threshold.” Scott Enright, Public Comment Letter  
13 (11/6/07)(“Enright Comment”), p. 3. There are several reasons to doubt this ‘unconservative  
14 assumption.’ First, the VOC emission factor utilized in the Permit is based on the AP-42 factors, which  
15 are not representative of eucalyptus wood, discussed *supra*. Second, the VOC emissions from the  
16 facility are understated because dryer emissions were based on veneer 3/8” thick (Addendum to Initial  
17 Application, Table 1), whereas the Project Description indicates that veneer will be cut to a thickness of  
18 1/8” (Revised Initial Application, p. 2-1). A thinner slab has more surface area and therefore more  
19 VOCs can be expected to be released during the drying process. Third, VOC emissions are calculated  
20 based on an annual dryer throughput of 83,000 Msf (Revised Initial Application, p. 4-14), when the  
21 actual throughput will be 106,189 Msf (Addendum to Revised Initial Application, p. 4-2).  
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25           These discrepancies suggest that VOC emissions from the dryer may in fact be much higher than  
26 indicated by the emission factor used in the Permit, and therefore that the Tradewinds facility will emit  
27 considerably greater VOC emissions than considered in the permit and exceed Major Source Thresholds.  
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4. The Permit Fails Understates NO<sub>x</sub> Emissions

It is well established that permit limitations must embrace all facility emissions, including those associated with equipment startup, shutdown and malfunction. Specifically, 40 C.F.R. § 60.44b requires that NO<sub>x</sub> standards “apply at all times including periods of startup, shutdown, or malfunction.” The Tradewinds permit fails to ensure compliance with this requirement, requiring compliance with NO<sub>x</sub> emission limits “at all times, *except* during boiler startup and shutdown.” Proposed Permit, p. 2, § C (2). This condition improperly excludes a significant portion of the facility’s emissions that must be included in the permit for purposes of calculating the potential to emit and the applicability of Major Source and New Source Review procedures and requirements.

5. The Permit Disregards Required BACT Analysis

Best Available Control Technology (BACT) is defined in HAR § 11-60.1-1 as

...an emission limitation based on the maximum degree of reduction for each pollutant subject to regulation under the Act which would be emitted from any proposed major stationary source...which the director, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source...

BACT analysis is required for any criteria pollutant emitted in amounts greater than significance levels. HAR § 11.60.1-81. Tradewinds’ Permit Application reveals that BACT analysis was only conducted for NO<sub>x</sub>, CO and PM, not for SO<sub>x</sub> or VOC. *See* p. 4-1. Moreover, proposed control technologies are rejected without adequate consideration, and evaluated on the basis of erroneous emissions levels. As Petitioner Enright stated in his comment letter “[t]he entire section of BACT is punctuated with vendor guarantees (not in writing, but with Caveats) and estimates. No hard calculations or test data were presented to justify conclusions. In addition, emission levels were based on 83,000 Msf when 106,000 Msf was applied for in an addendum. Essentially, the numbers presented are in error.” Enright Comment, p.3.

1 a. BACT Analysis Required for VOCs

2 Tradewinds contends that because VOC emission levels are below the DOH significance  
3 threshold of 40 tons/year, no BACT analysis for VOC emissions from the dryer is required. Initial  
4 Revised Application, p. 4-13. The assumption that VOC emissions will be below the threshold is called  
5 into question by the fact that the emissions levels utilized in the BACT process are based on an annual  
6 throughput of 83,000 Msf (*Id.*, p. 4-14), when actual throughput will be 106,189 Msf (Addendum to  
7 Initial Revised Application, p. 4-2). In addition, as discussed previously, the facility's potential VOC  
8 emissions are higher than accounted for, in part due to the fact that Tradewinds will be utilizing thinner  
9 veneer than used for in the emissions estimates. Furthermore, the AP-42 factors used in the emissions  
10 estimates are unrepresentative of eucalyptus wood emissions.

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13 In light of these discrepancies, VOC emission levels have not been adequately established; they  
14 may exceed the 40 tons/year threshold. To ensure compliance with HAR § 11.60.1-81, the Title V  
15 permit must fully quantify project VOC emissions and perform BACT analysis as appropriate.

16  
17 b. Improper Dismissal of Selective Non-Catalytic Reduction for NOx

18 The Permit Application discusses the merits of Selective Non-Catalytic Reduction (SNCR) and  
19 determines it is the highest ranking *available* control technology, and "technically feasible for  
20 application to the Tradewinds Veneer Mill cogeneration boiler." *Id.*, p. 4-10. Notwithstanding this  
21 admission, SNCR is dismissed in favor of the Permit applicant's proposed controls, which result in no  
22 additional costs to the applicant and nearly double the NOx emissions that could be achieved with  
23 SNCR.

24  
25 The Permit Application fails to establish that SNCR is not economically viable. In particular, the  
26 cost analysis omitted important details including depreciation and green energy credits, and fails to  
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1 clarify how the cost of SNCR relates to overall costs. Scott Enright, Public Comment Letter, p. 3; *see*  
2 Revised Initial Application, pp. 4-10 – 4-11.

3  
4 6. Health Risk Assessment Unrepresentative of Actual Risk

5 As discussed *supra*, HAR §11-60.1-179 prohibits the emission of HAPs from any stationary  
6 source in quantities that contribute to an ambient air concentration which endangers human health. This  
7 determination of whether HAPs emissions will endanger human health is based on the Health Risk  
8 Assessment, required by DOH per the above regulation, accompanying the Addendum to the Revised  
9 Initial Application. *See* Addendum to Initial Revised Application, p. 7-1. This Health Risk Assessment  
10 is flawed and is an inappropriate basis on which to determine the significance of HAPs emissions under  
11 HAR §11-60.1-179.

12  
13 a. Meteorological Data Unrepresentative of Local Conditions

14 The Health Risk Assessment is based on meteorological data gathered in Haina years ago, which  
15 is not representative of the meteorological conditions in Ookala. Petitioner Susie Collins criticized the  
16 meteorological data used in the Health Risk Assessment on several bases, including that the data was  
17 collected in Haina and not Ookala, collected seven years ago and only during a two month period, and  
18 was not collected in accordance with AERMOD standards as EPA now recommends. Susie Collins,  
19 Public Comment Letter, (11/5/07) (“Collins Comment”), pp.6, 9. Petitioner Collins further notes that  
20 one-year preconstruction meteorological data from Ookala must be collected. *Id.*, p. 9.

21  
22 Attached to Petitioner Collins’ Comment Letter, is a letter submitted by Yi-Leng Chen, Professor  
23 of Meteorology at the University of Hawaii. Professor Chen explains the extensive differences in the  
24 typical surface airflow patterns at different locations on the Island of Hawaii. *Id.*, p. 12. In particular he  
25 notes that winds at Ookala and Haina are different, due to blocking effects and trade-wind flow patterns.  
26 *Id.* He also notes that elevation is the main factor in determining surface air temperature, and that  
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1 Haina is at approximately 500 ft, Ookala at approximately 200 ft. *Id.*, p. 13. Moreover Ookala is nearer  
2 to the coast than Haina and has significantly different terrain. *Id.* Professor Chen concludes it is  
3 inappropriate to use the meteorological conditions of Haina to represent those of Ookala. *Id.*  
4

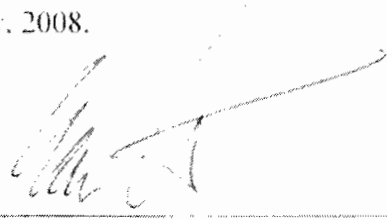
5 The AERMOD is a state-of-the-art modeling system developed by EPA, that requires greater  
6 inputs of meteorological data than provided for the Haina plant, and specifically accounts for the  
7 presence of intermediate and complex terrain, among other things. See <http://www.epa.gov/scram>  
8 [001/7thconf/aermod/mod-desc.txt](http://www.epa.gov/scram/001/7thconf/aermod/mod-desc.txt). As discussed by Professor Chen, the terrain in the vicinity of Ookala  
9 is distinct and expected to affect wind flow; the AERMOD system would account for these effects.  
10

11 The Health Risk Assessment is premised on meteorological data that is unrepresentative of local  
12 conditions and was not modeled pursuant to AERMOD standards; for these reasons compliance with  
13 HAR § 11-60.1-179 is not assured, and the health of Ookala's population is put into jeopardy. The  
14 Administrator must object to this permit and require more accurate and complete meteorological data be  
15 used in the health risk assessment.  
16

### 17 CONCLUSION

18 In sum, the Permit is not in compliance with the Clean Air Act and applicable requirements in  
19 State and Federal regulations. The facility is a major source of hazardous air pollutants but due to  
20 improper and unjustified lowering of emission factors, the Permit is not subject to Major Source  
21 procedures that is necessary to ensure that the requirements germane to hazardous air pollution control  
22 are implemented. Due to this and other deficiencies, the Administrator must object to the Title V permit  
23 for the Tradewinds Veneer Mill and Cogeneration facility in Ookala, Hawaii.  
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1 Respectfully submitted on this 4<sup>th</sup> Day of February, 2008.



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3  
4  
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6 Law Office of Marc Chytilo  
7 Attorneys for Petitioners  
8 **SUSIE COLLINS and SCOTT ENRIGHT**  
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## CERTIFICATE OF SERVICE

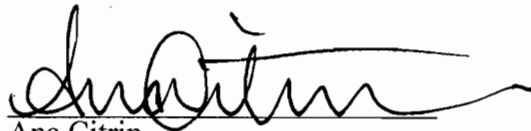
I hereby certify that a copy of the forgoing Petition for EPA Administrator Review of Title V Permit, Tradewinds forestry Products, Application for Initial Permit No. 0625-01, Covered Source Permit No. 0625-01-C, was served by first-class mail, postage prepaid, on February 4, 2008, upon:

U.S. EPA Region 9  
Air Division, Permits Office (Attn: AIR-3)  
75 Hawthorne Street  
San Francisco, CA 94105

Mr. Nolan Hirai, P.E.  
Supervisor, Engineering Section  
Clean Air Branch  
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Executed on February 4, 2008 in Santa Barbara, California.

  
Ana Citrin