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BEFORE THE HEARING BOARD OF THE SANTA BARBARA COUNTY

AIR POLLUTION CONTROL DISTRICT

IN RE: PETITION OF WINE INSTITUTE FOR REVIEW OF ATC ISSUED TO CENTRAL COAST WINE SERVICES FINAL AUTHORITY TO CONSTRUCT 15044; FID 11042; SSID 10834.	H.B. Case No. 2017-21-AP; H.B. Case No. 2017-24-AP **PETITIONER WINE INSTITUTE'S OPENING BRIEF**
IN RE: PETITION OF WINE INSTITUTE FOR REVIEW OF ATC ISSUED TO CENTRAL COAST WINE SERVICES FINAL AUTHORITY TO CONSTRUCT MODIFICATION 15044-01; FID 11042; SSID 10834.	Date: TBD Time: TBD Place: TBD

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I. Introduction

In this hearing, Wine Institute challenges a specific legal determination that the Air Pollution Control District made in issuing a permit to Central Coast Wine Services (CCWS). The District determined that the emissions controls that it required in the permit were "achieved in practice." That determination means that the emissions controls have been conclusively determined to be effective in reducing emissions over an adequate testing period, and that no further examination of their feasibility or cost is required—they may now be required at every similar facility in California that applies for a similar permit.

The problem with this determination is that the emissions controls in question have never been used at any winery, anywhere, in the manner that the District is requiring them to be used at CCWS. And they have certainly not been used or studied sufficiently to reach a conclusion that they are "achieved in practice" such that no further study of their effectiveness or cost is necessary. CCWS's application for its permit, the negotiations between the District and CCWS over the permit, and the permit itself all demonstrate that the District does not know whether the emissions controls will perform as required, because they have never been used as the District has required them to be used in the permit.

It is important to note that Wine Institute does *not* challenge the District's authority to require CCWS to use the emissions controls. The District has authority, under the law and its rules, to require CCWS to use the emissions controls as the Best Available Control Technology (BACT), without making an "achieved in practice" determination. If the District had issued the permit to CCWS without making an "achieved in practice" determination, the District could have required the use of the same emissions controls and placed exactly the same limits on CCWS's emissions as under the permit that Wine Institute challenges here. There would be no additional emissions in this District.

The District's unnecessary "achieved in practice" determination should be reversed because it will have a dramatic and negative effect on the wine industry in California. Wine Institute estimates that the District's determination could impose costs of hundreds of millions of

dollar or more on winemakers in California. Those costs would be incurred implementing emissions controls that have never been used over a full fermentation cycle at any California winery, and that have not been shown to be "achieved in practice."

The Hearing Board should grant Wine Institute's petitions, and direct the District to revoke the permit issued to CCWS and issue a new permit that does not contain an "achieved in practice" determination. The Hearing Board should also direct staff to remove the "achieved in practice" determination from the California Air Resources Board's BACT Clearinghouse.

II. Factual Background

A. Wine Production and Emissions Requirements

In the winemaking process, yeast metabolizes and ferments the sugar in grape juice to produce ethanol, an alcohol. Some of that ethanol evaporates and is emitted into the air. The California Air Resources Board (CARB) has calculated "emissions factors" that predict the average ethanol emissions from the winemaking process. However, there is substantial variation in emissions when different types of wine are made. Red wine fermentation, for example, produces ethanol emissions that are approximately two and a half times higher than emissions from white wine fermentation.[1]

Ethanol is a "volatile organic compound" or "VOC"—a carbon-based chemical that evaporates readily. Some VOCs, in the presence of sunlight, promote the formation of ozone, a pollutant that is regulated under state and federal law. These VOCs are called "Reactive Organic Compounds" or "ROCs." The District limits the amount of ROCs that any new or modified facility may emit before the facility is required to use emissions controls to reduce those emissions.

There is a specific standard that applies to the emissions controls that a new or modified facility must implement if it emits ROCs above a threshold. Because the District has not met the

[1] Exhibit 41, California Air Resources Board, Wine Fermentation Emissions Factors (2005) at 5.1-1, WI0997 (providing estimated emissions factors of 6.2 pounds of ethanol per 1000 gallons produced for red wine fermentation, and 2.5 pounds of ethanol per 1000 gallons produced for white wine fermentation).

State standard for ozone (the District is in "non-attainment"), new or modified facilities are required to implement the "Best Available Control Technology" or "BACT." (A less stringent standard applies to districts that meet the State and federal ozone standards.)

BACT is defined in the District's Rule 802.D.2 as follows:

> 2. For any stationary source subject to a nonattainment pollutant Best Available Control Technology requirement, Best Available Control Technology shall be the more stringent of:
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> a. The most effective emission control device, emission limit, or technique which has been ***achieved in practice*** for the type of equipment comprising such stationary source; or
>
> b. The most stringent limitation ***contained in any State Implementation Plan***; or
>
> c. Any other emission control device or technique determined after public hearing to be ***technologically feasible and cost-effective*** by the Control Officer.[2]

Note that there are three "prongs" to the BACT definition, the first based on an "achieved in practice" determination; the second (which is not relevant here) based on the requirements of a State Implementation Plan; and the third based on a determination by the Control Officer that emissions controls are "technologically feasible and cost-effective."

B. CCWS

CCWS is a "custom-crush winery" where grape growers bring their harvest to process, ferment, and bottle their wines. CCWS does not produce its own wines, but instead charges fees to growers that use its facilities.

[2] Exhibit 33, Rule 802.D.2, WI0917 (emphasis added).

The wine-making season lasts only about two to three months each year. During the harvest, wine makers bring their grapes to CCWS where they are crushed and then fermented in large metal tanks. CCWS has approximately 148 storage and fermentation tanks at its facility. The tanks range in size from a few hundred gallons to just over 20,000 gallons. CCWS refers to these tanks by number, and the permits at issue address primarily the larger 400-series tanks.

Although CCWS is one of the larger wine-making facilities in Santa Barbara County, it is much smaller than the large wine-making operations in the Central Valley, where some facilities have tanks exceeding 300,000 gallons in size.

C. The Emissions Control Systems

Beginning in 2013, CCWS began to use emissions control systems at its winery. CCWS used two types of emissions control devices. The first was manufactured by NohBell and is called NoMoVo (presumably short for "no more VOCs"). The NoMoVo system is connected to a fermentation tank with a hose. Gases escaping from the tank pass through the hose to a wet scrubber, which uses a slurry to capture ethanol. The slurry is shipped off-site for disposal.

CCWS began using its first NoMoVo system in September 2013 and a second in 2015. The NoMoVo systems are portable. CCWS used them on an as-needed basis, switching from tank to tank, to maintain ROC emissions below a District-imposed limit of 55 pounds per day. According to the District's AIP Determination memorandum,[3] the NoMoVo systems have operated 147 cumulative days at CCWS. However, the NoMoVo systems were used on only a few tanks at a time. They were not used during the beginning or end of the wine fermentation season, and were never used on any tank over a full fermentation cycle. The NoMoVo systems were never used for red wine fermentation in 400-series tanks.

The second emissions control system was manufactured by EcoPAS, LLC. The EcoPAS system is also connected to fermentation tanks with a hose, and uses a chiller to condense water

[3] Exhibit 3, ATC 15044, Attachment E, Achieved in Practice Determination for Wine Fermentation Emission Control Technologies, Memorandum from D. Harris (District) to M. Goldman (District) (Aug. 18, 2017), at p. 5, WI0181.

and ethanol emitted from the tanks. The condensate is captured and shipped off-site for disposal. The EcoPAS system is not portable. It is connected through a manifold to several tanks at once, and may be connected or disconnected from any of those tanks by opening or closing manifold valves.

The EcoPAS system operated at CCWS during the 2015 and 2016 fermentation seasons for 108 cumulative days on approximately 20 fermentation tanks.[4] As with the NoMoVo system, the EcoPAS system was not used during the beginning or end of the wine fermentation season, and was never used on any tank over a full fermentation cycle. According to the District's AIP Determination memorandum, the EcoPAS system was never used for red wine fermentation or on smaller 100-series tanks.

D. The Permits

By 2016, ten of CCWS's 400-series tanks were permitted for white-wine fermentation or wine storage only, and 30 others were permitted for wine storage only. None of the 400-series tanks were permitted for red wine fermentation. These limits were imposed so that CCWS could remain below a District-imposed emissions limit, but they were having a negative effect on CCWS's business.[5]

On April 26, 2017, CCWS applied for an "authority to construct" (ATC) permit to authorize modifications to its facility. CCWS applied for authority to use all 40 of its 400-series tanks for red or white wine fermentation, as well as storage. CCWS also sought permission to build a barrel-storage room for up to 2500 oak barrels.

In preparing its permit application, CCWS began to prepare an analysis of whether there were "technologically feasible and cost-effective" emissions controls that should be considered as BACT. That process was cut short, however, when the District informed CCWS that it would

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[4] Exhibit 3, ATC 15044, Attachment E, Achieved in Practice Determination for Wine Fermentation Emission Control Technologies Memorandum from D. Harris (District) to M. Goldman (District) (Aug. 18, 2017) at p. 6, WI0182.

[5] Exhibit 45, Declaration of Marianne F. Strange in Support of Wine Institute's Petition for Review at 3-4, WI1032-33.

require CCWS to use the NoMoVo and EcoPAS systems (the "Emissions Control Systems") as BACT to control ethanol emissions. At a meeting on March 28, 2017, District staff stated that they believed the Emissions Control Systems were "achieved in practice" and therefore the appropriate BACT for the project.[6] CCWS's permit application reflects the District's instructions and states that the District "has given instructions that CCWS should consider these technologies as BACT for this project."[7] The District's "achieved in practice" determination was the first such determination by any Air Pollution Control District in the State.

Using the Emissions Control Systems as BACT would be a significant change from the manner in which CCWS had used the Emissions Control Systems previously. CCWS would have to use the systems at all times on all tanks, from the beginning of fermentation until the end. And CCWS would have to use the systems for red wine fermentation in the larger 400-series tanks, something CCWS had never done before.

On August 18, 2017, the District issued ATC 15044, which incorporates the District's "achieved in practice" determination. ATC 15044 raised the facility's emissions limit from 54.99 pounds of ROCs per day to 124.98 pounds per day, and required the use of the Emissions Control Systems "at all times during fermentation operations in any tanks connected to the control equipment."[8] ATC 15044 also included a 90-day "Source Compliance Demonstration Period" or "SCDP." The SCDP is essentially a shake-down period during which a facility is permitted to operate while attempting to comply with the permit conditions.

To measure compliance with the permit, CCWS was required to estimate the daily emissions from the facility using emissions factors developed by CARB, and subtract the amount of ethanol captured by the Emissions Control Systems. The amount of alcohol captured, as a percentage of the total emissions, would then be averaged over a 30-day period. The permit

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[6] Exhibit 45, Declaration of Marianne F. Strange in Support of Wine Institute's Petition for Review at 7-9, WI1036-38.

[7] Exhibit 1, Central Coast Wine Services, Authority to Construct Application, Process Description, WI0009.

[8] Exhibit 3, Authority to Construct 15044, Condition 2.c, WI0129.

required the 30-day average to equal 67.0 percent or better. This performance standard was not based on any testing of the Emissions Control Systems to determine their efficiency or capabilities. Instead, it was proposed by CCWS based on an estimate of the emissions reductions that the systems would have to achieve in order for CCWS to remain within permit limits set by the District.[9] The District accepted this performance standard because it was guaranteed by the manufacturers of the Emissions Control Systems, who have a financial interest in obtaining an "achieved in practice" determination from the District.

Wine Institute filed a petition for review of ATC 15044 on September 14, 2017,[10] but CCWS and the District were in discussions to modify the ATC nearly as soon as it issued. CCWS was apparently not satisfied with the 30-day averaging period or the 90-day SCDP. The District adopted the 30-day averaging period to address the variations in emissions and capture efficiency caused by the inherent variability of the wine-making process, and the constraints on measuring emissions from wine fermentation tanks: "A 30-day rolling average addresses these constraints, and is a reasonable approach to enable the BACT process to move forward without being bogged down by excessive analytical roadblocks."[11] (The analytical roadblock in this case was, apparently, measuring the actual performance of the Emissions Control Systems.) But CCWS was concerned that, even over a period of 30 days, the Emissions Control Systems might not be capable of meeting the permit's performance standard.

After negotiations with CCWS and a threat by CCWS to submit a petition for review if the 30-day averaging period and the 90-day SCDP were not extended,[12] the District relented, and issued modified ATC 15044-01 on September 15, 2017, the day after Wine Institute had filed its

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[9] Exhibit 45, Declaration of Marianne F. Strange in Support of Wine Institute's Petition for Review at 6-7, WI1035-36.

[10] Exhibit 4, Wine Institute's Petition for Review of Authority to Construct 15044, H.B. Case No. 2017-21-AP (filed Sept. 14, 2017), WI0254-0272.

[11] Exhibit 3, Authority to Construct 15044, Attachment M, District Responses to Wine Institute Comments on Draft Permit, Comment 2-9, WI0244.

[12] Exhibit 19, Letter from CCWS to M. Goldman (District) re: BACT Calculation (Sept. 13, 2017), WI0809-WI0811; Exhibit 22, Email from M. Goldman (District) to G. Rios and L. Yannayon (EPA) re: CCWS (Sept. 18, 2017), WI0814.

first petition for review. In the modified permit, the District agreed to extend the averaging period and the SCDP to the full wine-making season. These changes in effect give CCWS an entire year's shakedown period during which CCWS is protected from some potential violations and can determine whether it can comply with the requirements of the permit.

Wine Institute filed a petition for review of ATC 15044-01 on October 11, 2017.[13]

III. The District's "Achieved in Practice" Determination Is Wrong

A. An "Achieved in Practice" Determination Requires A Track Record Showing That the Technology Works, Not an Expectation That It Will Work

The term "achieved in practice," with respect to BACT determinations, is not defined in state or federal law. The District's BACT Policy states only that, to be considered "achieved in practice," emissions controls must have "a proven 'track-record' of reliability."[14]

The three-prong definition of BACT (quoted in Section II.A. above) provides context that gives additional meaning to the term "achieved in practice." That definition makes clear that an "achieved in practice" determination has a specific function: it is a substitute for an examination of the technological feasibility and cost-effectiveness of an emissions control system. The BACT definition requires the use of emissions control systems that are (1) required under a State Implementation Plan (in other words, required by federal law), (2) determined by the District to be technologically feasible and cost-effective, or (3) "achieved in practice." For those controls that are not required by federal law, a determination that an emissions control system is achieved in practice means that there is no need for an inquiry into its technological feasibility or cost-effectiveness. It can be required, in essence, because *we know from prior experience that it works.* The District's policies acknowledge this function: "[t]he fact that a particular control technology is 'achieved-in-practice' implies its inherent economic and technological feasibility."[15]

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[13] Exhibit 6, Wine Institute's Petition for Review of Authority to Construct 15044-01, H.B. Case No. 2017-24-AP (filed Oct. 11, 2017), WI0508-0766.

[14] Exhibit 36, District Policy No. 6100.064.2017, § 5.1 (the "BACT Policy"), WI0952.

[15] *See id.* at § 5.0, WI0952.

The District's determination that the Emissions Control Systems are "achieved in practice" will have significant precedential effect far beyond this District: other Air Pollution Control Districts in California may rely on the District's "achieved in practice" determination to impose requirements to use similar Emissions Control Systems on new storage and fermentation tank at scores of wineries across California—with a potential impact of hundreds of millions of dollars. In fact, some Districts have already stated that they will require the Emissions Control Systems because of this District's finding that they are "achieved in practice."

Because an "achieved in practice" determination has such extraordinary impact, and because it will end any inquiry into the technological feasibility or cost-effectiveness of the emission controls, it should not be based on guesswork, surmise, or speculation. An expectation that the emissions controls will work is not enough. In order to determine whether emissions controls are "achieved in practice," the District should examine whether the emissions controls have been used exactly as they will be required to be used under the permit. At a minimum, that means that the emissions controls must have been used in the same manner as a BACT control technology.

Under the District's policies, BACT emissions controls must be "effective overall [sic] operating ranges."[16] BACT emissions controls must also be in use at all times: "If BACT is required, then the permit must have a BACT permit condition. … The condition should … state that the specified BACT *must be in place at all times of operation* during the life of the project/permit."[17] BACT emissions controls must also be implemented through the specification of a "performance standard" and not "solely through the specification of the BACT control technology being employed."[18] The performance standard must be stated as a concentration, rate, removal efficiency or other applicable, enforceable, numerical standard.[19]

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[16] Exhibit 36, District Policy No. 6100.064.2017 at § 8.1, WI0957.

[17] *Id.* at § 8.8, WI0960 (emphasis added).

[18] *Id.* at § 8.1, WI0957.

[19] *Id.*

B. The Emissions Control Systems Do Not Have a Proven Track Record

The ATCs require that the Emissions Control Systems be used on all storage and fermentation tanks at CCWS, operate over the full fermentation cycle, and achieve a combined capture and control efficiency of 67.0 percent. None of these three requirements has been "achieved in practice" at CCWS.

1. The Emissions Control Systems have not been used on all tanks.

First, the Emissions Control Systems have not been used on all of the types of tanks at CCWS. Neither system has been used to control emissions from red wine fermentation in the larger 400-series tanks. And the District's "achieved in practice" determination does not cite any evidence that the EcoPAS system has ever been used at CCWS on red wine fermentation tanks at all. There is thus no basis for assuming, much less determining with precedential effect, that the use of the EcoPAS system for red wine fermentation is "achieved in practice." The District acknowledges the absence of a track-record, and bases its determination on an *expectation* that the EcoPAS system will work:

> It is important to note that the EcoPAS system was only connected to series 400 tanks used for white wine fermentation during the 2015 and 2016 seasons. Ethanol emissions from white wine fermentation are approximately 60% lower than ethanol emissions from red wine fermentation (2.5 lb/1000 gallon v. 6.2 lb/1000 gallon). The EcoPAS system ***would be expected*** to capture and control more ethanol if connected to tanks used for red wine fermentation.[20]

"Achieved in practice" means, at the very least, that the control system *has been used with success* and not just that the District *expects* it to be successful.[21] The District's "achieved in practice" determination provides no basis for a determination that the NoMoVo and EcoPAS

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[20] Exhibit 3, ATC 15044, Attachment E, Achieved in Practice Determination for Wine Fermentation Emission Control Technologies Memorandum from D. Harris to M. Goldman (District) (August 18, 2017) at p. 6, WI0182; Exhibit 41, California Air Resources Board, Wine Fermentation Emissions Factors (2005) at 5.1-1, WI0998.

[21] Exhibit 43, Declaration of Steven Branoff in Support of Wine Institute's Petition for Review at 6, WI1014.

systems have been used on all types of tanks at CCWS. The District nevertheless determined that the Emissions Control Systems are "achieved in practice emission control technologies" for *all* "wine fermentation operations."[22]

2. The Emissions Control Systems have not been used for a full fermentation cycle.

Second, there is no track record of using the Emissions Control Systems, as required by the ATC, to control emissions on any tank for a full fermentation cycle—from start to finish. The District's Achieved in Practice Determination plainly acknowledges that the Emissions Controls Systems have not been used at CCWS on any tank for a full fermentation cycle.[23] This is especially significant in this case because the EcoPAS system is not guaranteed to work during the first quarter of the fermentation cycle or outside of certain vapor flow conditions.[24] The NoMoVo system is not guaranteed to work outside of "normal operational parameters." There is thus no track-record *or* guarantee for the use of the Emissions Control Systems over the entire fermentation cycle.

3. The permit's performance standard is based on speculation.

Third, the 67.0 percent performance standard that the District has specified is based on speculation—not real-world performance data. The 67.0 percent capture efficiency was calculated by CCWS's consultant, M. F. Strange & Associates, Inc., during the ATC permitting process as the efficiency necessary to ensure that the CCWS facility remained below the level at which an Air Quality Impact Analysis would be required—it was not based on any measured control efficiency or established through testing.[25] The vendors of the Emissions Control Systems then agreed to "guarantee" this performance.[26] The District relies on these guarantees to support

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[22] Exhibit 3, ATC 15044, Attachment E, Achieved in Practice Determination for Wine Fermentation Emission Control Technologies Memorandum from D. Harris to M. Goldman (District) (August 18, 2017) at p. 1, WI0177.

[23] *Id.* at 5-6, WI0181-82.

[24] Exhibit 1, Central Coast Wine Services, Authority to Construct Application (April 26,2017), Attachment B (EcoPAS Performance Guarantee, Proposal #17102, Performance Guarantee (April 14, 2017) § 3.a), WI0018.

[25] Exhibit 45, Declaration of Marianne F. Strange in Support of Wine Institute's Petition for Review at 6-7, WI1035-36.

[26] *Id.* at 7, WI1036.

the performance standard, but the manufacturers have a financial incentive to promise that their systems will work. If the systems work, they may be required by air pollution control districts across the State and the manufacturers will reap enormous profits. If the systems fail, the manufacturers' risk is limited to the purchase price.[27] The manufacturers' promises are not the same as proof that the systems have been "achieved in practice."

4. There is insufficient data indicating that the Emissions Control Systems have achieved the required performance standard.

Fourth, there is no data from CCWS, or from any other facility, to support a finding that CCWS could or would meet the 67 percent performance standard that the District has required. Indeed, CCWS's permit application candidly states that there is no demonstrated performance standard for the Emissions Control Systems. As the application notes in the BACT Analysis Summary Form for the EcoPAS system, the "Performance Standard" is "To Be Determined":

> EcoPAS has provided CCWS with a performance guarantee of 67%. **However this control efficiency has not been validated**. Limitations of the capture system were not taken into consideration. **Only with proper validation can a real control efficiency be assigned to this combination of vapor capture and ethanol extraction from the vapor stream**....[28]

The application also notes that "This technology is not effective over all operating ranges"—and therefore fails to meet one of the key requirements of the District's BACT Policy—and that "BACT will not be achievable during non-standard operations."[29] Under "Operating Constraints," the application states, "[t]o be determined."[30]

As noted by the District, the emissions control guarantee provided by EcoPAS does not

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[27] *See, e.g.,* Exhibit 1, Central Coast Wine Services, Authority to Construct Application, Attachment B, WI0020 (guarantee limited to purchase price).

[28] *See* Exhibit 1, Central Coast Wine Services, Authority to Construct Application, Attachment B, at 1 (emphasis added), WI0016.

[29] *Id.* at 2, WI0017.

[30] *Id.*

apply to the first quarter of the fermentation cycle, and only applies within a limited exhaust flow range.[31] Although the District acknowledges that the system is only guaranteed to operate at specific flow ranges, the permit contains no analysis of whether those flow ranges will be—or have been—achieved at CCWS.

CCWS's permit application also concedes that there is no demonstrated performance standard for the NoMoVo system. NoMoVo's manufacturer, NohBell, presents a range of possible capture efficiencies from 45 percent to over 90 percent. The application notes that the Performance Standard of the NoMoVo system is uncertain:

> Performance Standard: To be Determined – NohBell has provided CCWS with a performance guarantee of 67.5%. **However this control efficiency has not been validated**. Limitations of the capture system were attempted to be taken into consideration. **Only with proper validation can a real control efficiency be assigned to this combination of vapor capture and ethanol extraction from the vapor stream be assessed.**
>
> ....
>
> The performance of this technology is not consistent over the entire duration of a fermentation cycle. Absorption performance can vary from 45% to 90+% depending upon the timing of the fermentation cycle. Compound that variability with the normal insistent operations of the capture manifold, and **the actual variability of the control efficiency across all operating ranges [is] indeterminable.**[32]

Just as with the EcoPAS system, the application notes that "Operating Constraints" are "[t]o be determined."[33]

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[31] Exhibit 3, Permit Evaluation for Authority to Construct 15044, at 3, WI0160; Exhibit 3, ATC 15044, Attachment D (BACT Determination), WI0175-76.

[32] Exhibit 1, Central Coast Wine Services, Authority to Construct Application, Attachment C, WI0051-52 (emphasis added).

[33] *Id.* at 2, WI0052.

Moreover, the District has apparently acknowledged that the performance standard is based more on hope than fact. In a letter to the District confirming discussions at a pre-application meeting about the permit, CCWS states that:

> The meeting included a discussion on how the District would work with CCWS in the event that the percent reduction of ethanol documented in ATC 15044 could not be achieved during source compliance demonstration period (SCDP). **This concern was raised by CCWS because historically, neither EcoPas nor NoMoVo control devices had been used throughout a complete fermentation cycle.... It has been agreed that [this] is a first generation BACT determination and CCWS is requesting that the District works with us to ensure that it is achievable.** CCWS also wants to confirm that the District will not take enforcement action and that a clear avenue of modifying BACT and the permit will be available. Although not clearly stated in the ATC, CCWS is documenting in this letter our understanding of the process that was discussed at the pre-application meeting.
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> In the event that 67% BACT capture and efficiency cannot be met by either control device referenced above;
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> the District will:
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> 1. not issue a Notice of Violation (NOV),
> 2. not require a modification to CCWS's historical wine making practices,
> 3. work with CCWS to revise the BACT determination, and
> 4. allow a revision to the ATC to adjust to a new control efficiency or if necessary the mathematical methodology used to make the control efficiency determination that is being documented during SCDP.[34]

[34] Exhibit 15, Letter from M. Mather (CCWS) to M. Goldman (District) re: Central Coast Wine Services, Authority to Construct 15044 (September 5, 2017), WI0804 (emphasis added).

Although the record is unclear, the District apparently responded to this letter by disagreeing with CCWS's summary and stating that CCWS could seek a variance in the event of any non-compliance.[35] But regardless of that dispute, this record clearly demonstrates that both CCWS and the District were aware that it was uncertain whether the Emissions Control Systems could meet the 67 percent performance standard.

In short, the Emissions Control Systems have not been used on all tanks at CCWS, have not been used over a full fermentation cycle, and their performance efficiency is unknown. On this record, there is simply no reasonable basis for determining that the Emissions Control Systems have been "achieved in practice," have a "proven track record of reliability," or have been demonstrated to be "effective overall [sic] operating ranges," as required by the District's BACT Policy.

5. The District's "achieved in practice" determination violates the District's established procedures.

The District's "achieved in practice" determination also violates the District's own established procedures. The District's Engineering Division Manager wrote to the manufacturer of the EcoPAS system that, before issuing an "achieved in practice" determination, it was the District's policy to authorize the use of a control device as BACT (under the technological feasibility and cost effectiveness standards), and then perform verification testing.[36] The District should have followed that established procedure for the Emissions Control Systems. But it did not.

C. The Proposed Performance Standard Is Based On A Theoretical Estimate

Not only is the 67.0 percent performance standard unproven and speculative, it is also based on a theoretical estimate of facility emissions. The CARB emission factors that the District

[35] *See* Exhibit 19, Letter from M. Mather (CCWS) to M. Goldman (District) re: Central Coast Wine Services, Authority to Construct 15044 (September 13, 2017), WI0811 ("The current BACT compliance methodology includes the potential risk for repeated non-compliance that is not tied to actual emissions or control efficiency. The District's proposed recourse of requesting a variance and the District's unwillingness to grant a stay in any enforcement action, except as noted in [the District's Policy and Procedure] 3100 5.B. is not acceptable to CCWS.").

[36] Exhibit 25, Letter from M. Goldman (District) to P. Thompson (EcoPAS) re: BACT Determinations (January 21, 2016), WI0842.

relies on to calculate CCWS's uncontrolled emissions are not designed to be used for facility-specific determinations. Rather, CARB developed those factors for use by California Air Districts to estimate *district-wide* emissions from wineries as part of region-wide planning efforts.[37] The CARB emission factors are theoretical estimates of expected emissions at an average winery. The factors were derived from a 1983 paper that demonstrated the relationship between fermentation temperature and sugar content in wines.[38] Since these factors can vary significantly, depending on the location and climate of the winery, the type of grape, and the type of wine being produced, among other factors, CARB calculated average values for use in district-wide planning. The emission factors do not reflect the specific types of wine, sugar content or temperatures at CCWS, and therefore may not accurately reflect emissions from CCWS's facility.

The lack of reliable data to support a performance standard may seem like a technicality (because the systems do capture *some* ethanol), but it is in fact very significant, for two reasons. First, the reason that District policy requires BACT conditions to be stated as a performance standard is because the law does not require regulated parties to use the exact same technology that has been found to be "achieved in practice" BACT.[39] If a regulated party can achieve the same emissions reductions with a different technology, then the law allows it to do so. In other words, the law is technology neutral, and stays out of the business of telling regulated parties exactly what controls they have to buy and from whom. But the law can only remain technology neutral if there is a documented and supported performance standard that regulated parties must meet. A guess, or an unsupported estimate, is not sufficient, and is not acceptable as BACT.

Second, the fact that the District cannot establish a reliable performance standard for the EcoPAS and NoMoVo systems means that one of them may perform significantly better or worse than the other. In that case, the one that performs worse would not be the "most effective"

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[37] Exhibit 43, Declaration of Steven Branoff in Support of Wine Institute's Petition for Review at 4, WI1012.

[38] *Id.* at 4-5, WI1012-13.

[39] *Id.* at 5, WI1013.

control,[40] and therefore would not be BACT. Thus, the absence of reliable performance data means that one of the Emissions Control Systems probably is not BACT—and the District does not know which one.[41]

D. The Emissions Control Systems Have Not Been Tested Over A Sufficient Period Of Time

Not only have the Emissions Control Systems never been used as required in the permit, they also have not been used under any circumstances for a sufficient period of time to make an "achieved in practice" determination. The District points to a 1997 EPA memo that states that an emissions control device must successfully operate over six months to be considered "achieved in practice."[42] Another leading Air Quality Management District, the South Coast AQMD, requires at least 183 cumulative days of operation to meet the reliability criterion for "achieved in practice" determinations.[43] These time periods are *minimums*; an air district is *not* required to conclude that an emissions control device is "achieved in practice" after six months or 183 days of use. The District's AIP Determination memo, without reference to any guidance or analysis, slashes that "successful operation" period from six months or 183 days to only 80 days—based on the assertion that the short wine fermentation season justifies a shorter demonstration period. But the District provides no reason why a shorter wine fermentation season would justify less study of the Emissions Control Systems, and there is no logical reason to conclude that a shorter "successful operation" period is reasonable.

The NoMoVo system has operated at CCWS for a total of 147 days over three wine fermentation seasons, and the EcoPAS system has operated at CCWS for a total of 108 days over

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[40] *See* Exhibit 33, Rule 802.D.2.a, WI0917.

[41] *See* Exhibit 43, Declaration of Steven Branoff in Support of Wine Institute's Petition for Review at 7, WI1015.

[42] Exhibit 3, ATC 15044, Attachment E, Achieved in Practice Determination for Wine Fermentation Emission Control Technologies Memorandum from D. Harris (District) to M. Goldman (District) (Aug. 18, 2017) at p. 2-3, WI0178-79 (citing letter from D. Howekamp (EPA) to M. Nazemi (South Coast AQMD) (Aug. 25, 1997)).

[43] Exhibit 37, South Coast AQMD, Best Available Control Technology Guidelines, Part A – Policy and Procedures for Major Polluting Facilities (Dec. 2016) at 19, WI0966 ("All control technologies must have been installed and operated reliably for at least six months. **If the operator did not require the basic equipment to operate daily, then the equipment must have at least 183 cumulative days of operation.**") (emphasis added).

two seasons.[44] While the District tries to finesse the fact that the Emissions Control Systems have not been used for a total of six months by referring to various percentages of use over fermentation seasons,[45] the fact remains that neither Emission Control System has been used for a cumulative total of six months or 183 days.[46] As EPA and the SCAQMD have concluded, that is not enough time to justify an "achieved in practice" determination.

E. The Emissions Control Systems Cannot be "Achieved in Practice" Because There Is No Evidence that CCWS Has Paid the Actual Cost of Acquiring and Operating the Emissions Control Systems

As discussed above, an "achieved in practice" determination implies a determination that the emission control is cost effective. If the emission control has been successfully used by private parties as BACT, or in the same manner as a BACT control, over a substantial period of time, that implies that the cost of the emission control is not economically prohibitive for the affected industry.

Common industry practice is for companies to purchase emissions control systems, and EPA's Air Pollution Control Cost Manual analyzes cost effectiveness with the assumption that the systems are purchased.[47] But, as discussed in the declaration of Marianne F. Strange, CCWS did not purchase the Emissions Control Systems. Instead, it leased them. The leasing of the Emissions Control Systems may provide CCWS with a "discount" from the fair market cost.[48] The District has never analyzed whether CCWS has paid a full market price for the systems or is instead receiving them at a discount as a promotion.

The sale or lease of an emissions control system at significantly reduced prices—as a "loss leader"—is a legitimate business and marketing strategy to promote a product. It also

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[44] Exhibit 3, ATC 15044, Attachment E, Achieved in Practice Determination for Wine Fermentation Emission Control Technologies Memorandum from D. Harris (District) to M. Goldman (District) (Aug. 18, 2017) at p. 5-6, WI0181-82.

[45] *Id.*

[46] *Id.*

[47] Exhibit 45, Declaration of Marianne F. Strange at 10, WI039.

[48] *Id.* at 9-11, WI1038-40.

benefits an early adopter of a product, who obtains it at a substantial discount below fair market price, in order to prove its functionality and attract future customers. But, because CCWS may have acquired and operated the Emissions Control Systems at below-market costs, it cannot be said that the use of those systems is "achieved in practice." One of the premises of an "achieved in practice" determination is that cost considerations do not need further study because a business has been able to deploy the control systems without going out of business.[49] In other words, the proof is supposed to be in the successful use of the system acquired at fair market prices by a for-profit business.

But, if CCWS has not actually paid fair market prices for the Emissions Control Systems, then it cannot be said that the cost of acquiring and operating the Emissions Control Systems is reasonable. This point has been illustrated by the San Joaquin Valley Air Pollution Control District (San Joaquin Valley APCD) in a response to EPA regarding the use of the Emissions Control Systems:

> In the letter, EPA referenced a 2013 source test of a NoMoVo scrubber system installed at a Kendall Jackson winery for a temporary experimental research operation that was funded by a grant from BAAQMD as evidence that this emission control technology can achieve emission reductions from wine fermentation operations. As explained in the AIR Memo, Kendall Jackson did not purchase the referenced NoMoVo system, and it is no longer being used at the winery. In a 1989 memorandum titled "Guidance on Determining Lowest Achievable Emission Rate (LAER)" EPA makes a statement "*If some other plant in the same (or comparable) industry uses a control technology, then such use constitutes de facto evidence that the economic cost to the industry is not prohibitive.*" In fact, this is the logic that allows air districts to require emission control technology that has

[49] Exhibit 37, SCAQMD BACT Guidelines, Part A - Policy And Procedures For Non-Major Polluting Facilities (Dec. 2016) at 19-21, WI0966-68.

> been achieved in practice to be required regardless of cost. However, **this logic is only sound if the example facility actually incurred economic costs related to the use of that technology. Since Kendall Jackson did not purchase the NoMoVo emission control system, it did not incur any economic cost due to the use of this emission control system, so one cannot conclude that the use of this technology at this installation is de facto proof that the economic cost to the industry is not prohibitive.**[50]

As the Kendall Jackson example shows, an Emissions Control System acquired and operated by a winery at below-market costs cannot constitute "de facto evidence that the economic cost to the industry is not prohibitive." Since CCWS may not have paid a fair market price for the installation or the operation of the Emissions Control Systems, there is no justification for a finding that the Emissions Control Systems have been "achieved in practice." On this basis alone, the "achieved in practice" determination should be rescinded.

Moreover, not only has the District failed to assess whether the Emissions Control Systems were obtained at fair market prices, the Emissions Control Systems would not pass cost effectiveness analysis if they were evaluated. The declaration of Marianne F. Strange includes, as an exhibit, a Top Down BACT analysis performed according to EPA guidance by Marianne F. Strange and Associates.[51] That analysis demonstrates that the Emissions Control Systems would not meet cost effectiveness benchmarks when evaluated according to EPA standards.[52] The inability to demonstrate that CCWS has paid the actual cost of the Emissions Control Systems, and the further analysis that the Systems are not cost effective, further demonstrates that the

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[50] Exhibit 41, Final Authority to Construct (Significant Modification), Facility No. C-447, San Joaquin Valley Air Pollution Control District (Nov. 3, 2015), District Response to Environmental Protection Agency (EPA) Comments to SJVAPCD, submitted May 8, 2015, at *3, WI1006 (emphasis added).

[51] Exhibit 45, Declaration of Marianne F. Strange in Support of Wine Institute's Petition for Review, Exhibit A, WI1041-46.

[52] Exhibit 45, Declaration of Marianne F. Strange in Support of Wine Institute's Petition for Review, at 9-11, WI1038-40

District's "achieved in practice" determination does not withstand scrutiny.

F. The Emissions Control Systems Have Not Been "Achieved in Practice" Because There Has Been No Examination of Their Effect On Wine Quality

One of the reasons why the District should not rush an AIP determination in this case is the question whether the Emissions Control Systems will have any effects on wine taste or quality. This is of course a critical issue to winemakers. As EPA has recognized in several policy statements,[53] and industry experts acknowledge,[54] changes in fermentation processes can significantly affect the quality of wine produced. Wines may be affected by bacteria, different types of yeast, and mold, all of which may grow in or be transmitted through the hoses and ducting that connect the Emissions Control Systems to the wine tanks. The Emissions Control Systems create the potential for contamination and connection, through their manifolded pipes, from one tank to another.[55] Although CCWS has not identified any quality issues given the limited use of the Emissions Control Systems thus far, this issue should be studied during a test of the Emissions Control Systems, used under BACT conditions. The District should not issue a de facto requirement for the use of the Emissions Control Systems throughout the State without any study of their effects on wine quality. No such study has been performed to date.

G. The District's BACT Policy Plainly Requires Source Testing to Determine BACT, But No Source Testing Was Performed.

The District's BACT Policy requires that source testing be performed to "ensure that the BACT performance standards and hourly mass emission rates are in compliance."[56] A source test is a precise measurement of the emissions from a source, using a District-approved protocol and testing method. No such source testing has ever been performed at CCWS.

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[53] Exhibit 40, Emissions Factors for Wine, U.S. Environmental Protection Agency (Oct. 1985), § 9.12.2.2, WI0990 (noting effect of temperature, venting of CO2, water vapor, and ethanol, and malolactic fermentation on wine quality).

[54] Exhibit 44, Declaration by Christopher Savage in Support of Wine Institute's Opening Brief re: Wine Quality (Dec. 15, 2017), Exhibit A ("Microbiological Concerns Related to Potential Proposed Requirements of Alcohol Emission Fermenter Ducting" (Sept. 14, 2017)), WI1023-29.

[55] *Id.*

[56] Exhibit 36, District Policy 6100.064.2017, § 8.4, WI0958-59.

The District's BACT Policy provides that "[s]ource testing may not be applicable in some BACT determinations and other means of compliance may be used."[57] However, the District and manufacturers of the Emissions Control Systems have implicitly conceded that source testing of the Emissions Control Systems is possible. The District's Engineering Division Manager has acknowledged, in an email to CCWS, that EPA is considering conducting such testing:

> Just wanted to share with you a conversation I had with EPA recently regarding winery emission control source testing. In particular, we discussed the CCWS question and options, ***including a potential EPA study to evaluate source testing methodologies (a longer term project)***. In the meantime, EPA provided us guidance that source testing using the mass balance calculations currently in place would be an acceptable compliance tool in lieu of traditional inlet/outlet source testing. ***Once complete, we would utilize EPA's test method for new projects*** ....[58]

This email implicitly concedes that source testing is possible, and even under review by EPA.

The manufacturer of the EcoPAS system has similarly conceded that source testing is possible, stating that source testing "is long overdue." In an email to the District, EcoPAS sought funding for such testing:

> ***When you talk to EPA, can you support the concept that they fund a review of source testing for this category?*** This may take a while (and even more if it is determined that new method(s) need validating), but it would be good to get it started. In the meantime, we can use mass balance, but ***a solid assessment of actual emissions factors and inventory is long overdue.***[59]

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[57] *Id.*

[58] Exhibit 9, Email from M. Goldman (District) to R. Mather (CCWS) re: Source Testing (March 1, 2017), WI0783 (emphasis added).

[59] Exhibit 5, Email from P. Thompson (EcoPAS) to M. Goldman (District) re: EPA Position on Winery VOCs (Jan. 6, 2017) (emphasis added), WI0506.

These emails suggest not only that source testing is possible, but also that the reason it has not been conducted is the manufacturers' reluctance to pay for it. That is not a reason to waive the source testing requirement.

The District's BACT Policy also requires the approval of the Supervisor of the Permitting Section to waive the requirement for source testing. The permit contains no statement that the Supervisor has provided such waiver. The failure to perform source testing, without adequate justification, further demonstrates that the Emissions Control Systems have not been used as BACT and are not "achieved in practice."

IV. In Other Clean Air Act Contexts, "Achieved in Practice" Is a High Bar

In a related area of law arising under the Clean Air Act, the courts have determined that an "achieved in practice" determination must be supported by actual, real world data. In cases regarding the standard that must be met by control equipment required to be the Maximum Achievable Control Technology (MACT)[60] which has been "achieved in practice," courts have determined that the control technology must "achieve" the MACT floor "in practice" and that theoretical projections of how the emission control systems will perform are not sufficient.[61] For the control technology to be "achieved in practice," it must have achieved the emission control "under the worst foreseeable circumstances."[62] Although this standard does not apply directly to the case before the Hearing Board, it demonstrates the high bar that should be met before making an "achieved in practice" determination.

V. The Only Statewide Review of the Emissions Control Systems Concluded That They Are Not "Achieved in Practice"

The San Joaquin Valley APCD conducted a statewide analysis in 2015 and 2016 of the

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[60] 42 U.S.C. § 7429(a)(2) (imposing requirement to use the MACT for solid waste incineration units, and requiring that the emissions control shall "not be less stringent than the emissions control that is achieved in practice by the best controlled similar unit.").

[61] *Michigan v. EPA*, 135 S. Ct. 2699, 2719, 192 L. Ed. 2d 674 (2015) ("'Cost considerations are reflected in the selection of emissions limitations which have been *achieved in practice* (*rather than those which are merely theoretical*) by sources of a similar type or character.' " S. Rep. No. 101–228, pp. 168–169 (1989), 1990 U.S.C.C.A.N. 3385, 3554 (emphasis added)).

[62] *Sierra Club v. EPA*, 167 F.3d 658, 665 (D.C. Cir. 1999).

use of the Emissions Control Systems at multiple facilities throughout California.[63] This comprehensive review found that the Emissions Control Systems were not "achieved in practice" because:

- "The [CCWS] permit [did] not require continuous operation of the [Emissions Control Systems]."
- "The effectiveness of the [Emissions Control Systems] has only been estimated using . . . a theoretical calculation of the quantity of ethanol that would be emitted if the tanks were uncontrolled. Inlet and outlet air quality testing has not been performed for this particular installation."
- "[T]he overall effectiveness of the system, including any ethanol re-emitted into the atmosphere during [waste] disposal, has yet to be sufficiently determined."
- "[T]he control technology has not been demonstrated to operate in a manner that would be required by BACT . . ."[64]

Despite the San Joaquin Valley APCD's thorough statewide review, which was presented to the District before it issued the modified permit to CCWS, the District has not demonstrated, and cannot demonstrate, that the San Joaquin Valley APCD's analysis is incorrect.

VI. EPA's Views Regarding the Emissions Control Systems Are Not Conclusive

In a series of letters cited by the District, an EPA staff person has expressed the opinion that the Emissions Control Systems are achieved in practice, and therefore constitute the "Lowest Achievable Emissions Rate" under federal law, which is similar to the District's definition of "achieved in practice" BACT. EPA staff expressed those opinions in connection with federal permits sought by wineries in the Central Valley. Those letters, however, do not bind the District, nor do they bind EPA or other APCDs. EPA is free to revise them, and may do so at any time. They are not considered statements of EPA policy, or even official guidance.[65] In any event, CCWS's permit is not a federal permit, and EPA has no say in whether any permit is issued to CCWS, or whether an "achieved in practice" determination should be included in any

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[63] Exhibit 24, Achieved in Practice Analysis for Emission Control Technologies Used to Control VOC Emissions from Wine Fermentation Tanks, SJVAPCD (Feb. 9, 2015, revised May 9, 2016), WI0828.

[64] *Id.* at 11-12, WI0838-39.

[65] Exhibit 43, Declaration of Steven Branoff in Support of Wine Institute's Petition for Review at 8-9, WI1016-17.

such permit.

VII. Conclusion

When CCWS first met with the District to discuss the permits at issue here, CCWS planned to apply for a permit that would include BACT technologies that were determined by the District to be "technologically feasible and cost-effective." If the District had followed its own rules and procedures and made a determination that the Emissions Control Systems were "technologically feasible and cost-effective" for CCWS, there would have been no appeal. Instead, the District made a premature determination that the Emissions Control Systems were "achieved in practice"—without an adequate track record and without developing a reliable performance standard. That determination is both wrong and very damaging to the State's wine industry. The Hearing Board should reverse it, and direct the Air Pollution Control Officer to issue a new permit to CCWS that does not contain an "achieved in practice" determination with respect to the Emissions Control Systems.

Dated: January 9, 2018

Respectfully submitted,

BARG COFFIN LEWIS & TRAPP, LLP

By: 

R. MORGAN GILHULY

Attorneys for Wine Institute

PROOF OF SERVICE

I am a resident of the State of California, over the age of eighteen years, and not a party to the within action. My business address is Barg Coffin Lewis & Trapp, LLP, 600 Montgomery Street, Suite 525, San Francisco, California 94111. On January 9, 2018, I served the following document:

PETITIONER WINE INSTITUTE'S OPENING BRIEF
Case Nos. 2017-21-AP, 2017-24-AP

☐ by transmitting via facsimile the document(s) listed above to the fax number set forth below on this date before 5:00 p.m.

☒ by causing personal delivery overnight delivery by Federal Express of the document(s) listed above to the person at the address set forth below.

☐ by dispatching a messenger from my place of business with instructions to hand-carry the above and make delivery to the following during normal business hours, by leaving a true copy thereof with the person whose name is shown or the person who was apparently in charge of that person's office or residence.

☐ by placing the document(s) listed above in a sealed envelope with postage thereon fully prepaid, in the United States mail at San Francisco, California addressed as set forth below.

☐ by transmitting via email the document(s) listed above to the email address(es) set forth below on this date before 5 p.m.

Sara Hunt Clerk of the Hearing Board Santa Barbara County Air Pollution Control District 260 North San Antonio Road, Suite A Santa Barbara, CA 93110	William Michael Dillon County Counsel's Office 105 E. Anapamu Street Santa Barbara, CA 93101

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed on January 9, 2018, at San Francisco, California.

Carlotta Datanagan