

OhioEPA

Division of Air Pollution Control (DAPC)

Response to Comments

Project: E 85, Inc.; Draft Air Permit-to-Install (PTI)
Ohio EPA ID #: PTI # 01-12115

Agency Contacts for this Project

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Ohio EPA held a public hearing on April 12, 2007 regarding a draft air permit-to-install for E 85, Inc. This document summarizes the comments and questions received at the public hearing and during the associated comment period, which ended on April 16, 2007.

Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format.

Comments

Comment 1: **The PTI permit application forms enable PTI applicants to articulate statements of maximum process production/throughput rates for emission units at less than the maximum physical design capacity of the equipment they actually install.**

Response 1: Ohio EPA does not concur with the commenter. DAPC's instructions for its application forms require information on the maximum possible usage of various equipment. For example, the instructions for Process Operation (Form 3100) direct the applicant to:

“State the average and maximum hourly production rates (indicate units) of the process operation....State the projected annual production and indicate the appropriate

units "Maximum" is defined as the operations highest attainable production rate. This often is identified by the manufacturer as the "maximum design capacity" for equipment."

OAC rule 3745-31-04 addresses the relevance and veracity of application information, such as 3745-31-04(C):

"The signatures shall constitute personal affirmation that all statements or assertions of fact made in the application are true and complete, comply fully with applicable state requirements, and shall subject the signatory to liability under applicable state laws forbidding false or misleading statements."

These elements of Ohio EPA's Permit to Install program assure that information contained in applications is accurate.

Comment 2: **The emission units sections B001 and B002 contain no physical limitations on the potential to emit. The commenter stated that although there is a requirement to maintain a fuel feed monitoring devices and to record the operating fuel feed rates, there is no requirement to limit the physical gas charging rate to the two boilers on either a one hour or annual basis. The commenter stated that nothing in the application indicates which of the steam rates [normal or design] is explicitly related to the claimed maximum heat input rate.**

Comment 2: **There is no enforceable limit to the potential to emit for the boilers because there is no limitation on natural gas fuel combustion.**

Response 2: The boilers in this permit are permitted at the boilers' maximum fuel capacity, 150 mmBTU/hr and the fuel is restricted to natural gas. The capacities, and fuel, are stated in the description of the emissions unit. The permittee is prohibited from installing boilers of larger capacity. Emission rates from boilers are affected by fuel rate, boiler and burner design and burner operation. Since the boilers limit the fuel rate by their design, there is no need to include fuel limits in the terms and conditions. The fuel rate is further controlled by monitoring and recording the amount of natural gas combusted during each day (Condition II.C.1). The permit terms and conditions (Condition II.B.2) state," The permittee shall operate low NOx burners and employ flue gas

recirculation at all times when this emissions unit is in operation,” accounting for boiler and burner design. Proper burner operation will be monitored by the combination of daily visible emissions checks and the continuous NOx monitor. The maximum heat input rate is related to the design steam rate by the design basis, which include the boilers’ thermal efficiency and the difference in heat content between generated steam and boiler feedwater:

$300,000,000 \text{ BTU/hr} \times 0.82 / 1,000 \text{ BTU/lb} = 246,000 \text{ lb steam/hr.}$

Comment 3: The draft permit features a physical limit on maximum annual grain to be loaded at a single emission unit and another limit on the maximum annual product to be run through loading racks at another emission unit. These physical limitations do not necessarily sufficiently limit the potential to emit on all of the other individual emission units on site. The hourly emission limitation[s] are also necessary to protect ambient significant deterioration increments. The cooling tower needs short-term particulate emission limits.

Response 3: Ohio EPA disagrees with the commenter because E85 is not a prevention of significant deterioration (PSD) facility. The facility (except for parallel hammermills) is a single-train plant with a single product slate (ethanol and distillers grains). Emissions units P003, P004 and P005 handle the entire corn throughput for this facility and have operational restrictions in the draft permit of 41,000,000 bushels of corn per year. The draft permit does not allow the facility to receive milled corn flour. The loading racks (as noted by the commenter), the biomethanator and the emergency electric generator in the draft permit have federally enforceable operational restrictions. These operational restrictions will limit annual throughput or hours of use or venting, which effectively limit their potentials to emit. All other emissions units downstream from P003 through P005 effectively have throughputs restricted by the above corn processing restriction, or are permitted at their maximum capacities. All emissions units have sufficient limitations on their potentials to emit.

Pollutants at individual emissions units which have annual permitted emissions exceeding 10 tons per year also have hourly limits. The remaining 27% of emissions of criteria pollutants are spread over 21 smaller emissions units at the

facility, which is diverse enough not to affect short-term air quality. In addition, as discussed elsewhere, the draft permit assures that consumption of PSD increments need not be estimated, since emission rates will not exceed emission thresholds for PSD analysis.

Comment 4: **The “restriction” under an air permit must be mandatory and not “voluntary,” and that calling a restriction “voluntary” lowers or abolishes completely its authority to no more than a non-binding guidance basis. The words “voluntary restrictions” must be amended to remove this threat to enforceability.**

Response 4: The restrictions are called “voluntary” because the applicant willingly either offered or accepted the restriction in order to avoid major new source review. However, once the operational or emission control restrictions are written in the permit, then the applicant must adhere to those restrictions.

Comment 5: **The 20% opacity limit, standing alone in this permit as it does, is inadequate to ensure compliance with the mass rate particulate limit for the cooling tower.**

Response 5: The commenter is correct in stating that opacity observations are usually not closely correlated to mass emission rate. One value of opacity observations is that they often strongly indicate that something is amiss with the associated emissions unit.

Comment 6: **The commenter stated that there are no hourly emission limitations for the cooling tower particulate matter. Measurement of the average cooling tower recirculation water total dissolved solids on a weekly average cannot ensure that cooling tower particulate emissions remain within the parameters of what was modeled on a pound per hour basis. The draft permit should be amended to indicate the 2,750 ppm total dissolved solids is a ceiling value and not a weekly average.**

Response 6: The total dissolved solids monitoring in the draft permit is to be conducted once per week. As such, the measurement is a weekly ceiling value and not a weekly average. However, with respect for the commenter’s concern for short-term emissions, the monitoring frequency in the final permit has been increased from weekly to daily.

Comment 7: **The permit for the boilers is not practically enforceable, since there are no hourly mass emission limits for PM, SO₂, NO_x, and VOCs.**

Response 7: The boilers are permitted at their maximum short-term fuel rates. Section II.A.1 gives the effective short-term limits, as well as long-term limits, for PM and NO_x, based on fuel rates and stack testing enforced by Section II.E.1.a. Since the only fuel for the boilers is natural gas, short-term limits on SO₂ and VOC are unnecessary (and unregulated). Section II.E.1.b further gives the long-term compliance demonstration, for all subject pollutants, as: Compliance with the annual limitation shall be determined by multiplying the observed hourly emission rate from the emissions testing required above by 8,760 hours per year and dividing by 2000 pounds per ton.

Comment 8: **The Ohio Legislature enacted amendments to the BAT requirements at ORC 3704.03(T)(4) providing for a ten ton cutoff for the requirement. The commenter stated that the ten ton cutoff for the requirement for BAT, [ORC 3704.03(T)(4)] has not been incorporated into the federally enforceable Ohio State Implementation Plan (SIP) under the Clean Air Act and that changes to the Ohio SIP are only effective after approval by the EPA Administrator pursuant to 40 C.F.R. §51.105. The present Ohio State Implementation Plan, which is federally enforceable, remains in effect without a ten ton/year threshold and with a requirement for Best Available Technology implementation by permit requirement for all of the emission units at the proposed Summit E85, Inc. Ethanol plant. The use of voluntary restrictions does not comply with the requirements of Ohio's State Implementation Plan.**

Response 8: Ohio EPA is obligated to follow Ohio law. ORC 3704.03(T)(4) specifies that BAT does not apply to an air contaminant source that has the potential to emit (taking into account air pollution controls installed on the source) of less than ten tons per year of an air contaminant or precursor of an air contaminant for which a National Ambient Air Quality Standard (NAAQS) has been adopted under the federal Clean Air Act. The ORC has been codified into Ohio EPA rules at 3745-31-05(A)(3)(b). The source can accept voluntary synthetic minor type restrictions in the permit (either by use of operating restrictions or optional add-on

controls) per OAC rule 3745-31-05(C) to restrict the emissions to below the 10 ton/yr BAT threshold.

Comment 9: The draft permit should be amended to incorporate internal floating roof seal requirements and physical inspection requirements for T001 and T002, 200 Proof Ethanol Storage Tanks, similar to permit elements required for tanks T003, T004 and T005 as part of Ohio BAT requirements.

Response 9: T001 and T002 (200 proof ethanol storage tanks) need not have floating roofs with seals, since the product vapor pressure is not expected to exceed 0.75 pounds per square inch, absolute, in central Ohio. That degree of volatility is the minimum for such seals, and periodic inspection of seals, in the Federal NSPS Subpart Kb, to which these two tanks are not subject. Seals were voluntarily included by the applicant in its original application and are included in the final permit.

Comment 10: In the Summit Ethanol case, Ohio EPA accepted that Applicant's determination as valid that fermentation scrubber emissions controlled by a thermal oxidizer constituted Ohio BAT control. Ohio EPA has failed to require the same level of Ohio BAT control for Applicant's fermentation scrubber volatile organic compound and hazardous air pollutant emissions. The permit should require that the fermentation exhaust should be routed to both the scrubber and the thermal oxidizer.

Response 10: Ohio EPA accepted as BAT the use of the listed control devices for the following ethanol plant air permits:

03-16271	Greater Ohio	Fermentation	Wet Scrubber
06-07704	Coshocton	Fermentation	Wet Scrubber
01-01306	ASA Bloomingburg	Fermentation	Wet Scrubber
08-04773	The Andersons	Fermentation	Wet Scrubber
03-17156	Summit	Fermentation	Wet Scrubber; Thermal Oxidizer

With the applicant's continuous fermentation design, pre-fermentation may be vented separately. Ohio EPA is accepting as BAT the use of the listed control devices for these draft ethanol plant air permits:

01-12113	E85, Inc.	Prefermentation	Wet Scrubber; Thermal Oxidizer
01-12115	E85, Inc.	Prefermentation	Wet Scrubber; Thermal Oxidizer
01-12113	E85, Inc.	Fermentation	Wet Scrubber with SBS
01-12115	E85, Inc.	Fermentation	Wet Scrubber with SBS

SBS, sodium bisulfite, is a chemical additive which increases the collection efficiency of wet scrubbers on fermentation emissions. The thermal oxidizer is to receive scrubbed emissions from the prefermentation portion of the process.

Comment 11: **The permit should require that the Distillation exhaust (P013) should be routed to both the scrubber and the thermal oxidizer.**

Response 11: Ohio EPA agrees that it is not clear in the draft permit that distillation emissions unit (P013) includes the wet scrubber. Therefore, we have revised the description of the equipment under emission unit P013 to include both the wet scrubber and thermal oxidizer.

Comment 12: **The permit minimum flare efficiency of 98% control was too low because the remaining unconverted hydrogen sulfide (20 ppm) would do substantial damage to the inventory of a warehouse by the absorption of odor.**

Response 12: The draft permit directs biomethanator emissions (biogas) to a dryer burner to be used as fuel. The conversion of fuel (such as natural gas or biogas) in a burner significantly exceeds 98%. Use of the back-up enclosed flare for biogas is limited to no more than 500 hours per year, when the dryer burner is unavailable. With the assumed minimum destruction efficiency of 98 %, dispersion from the flare will result in ground-level concentrations of hydrogen sulfide being consistently below odor thresholds. Therefore, absorption of hydrogen sulfide odor by leather (and subsequent desorption) is unlikely.

Comment 13: **The Draft permit language for each emission unit which is subject to a federal New Source Performance Standard must incorporate a provision which also requires conformance to the NSPS preamble provision, Subpart A of 40 C.F.R. Part 60 as a federally enforceable applicable requirement to which the facility is subject.**

Response 13: 40 CFR Part 60 Subparts Db and Dc cite relevant sections of Subpart A for steam generators (see B001, B002, P023 and P024). 40 CFR Part 60 Subpart Kb cites relevant sections of

Subpart A for storage tanks (see T003, T004 and T005). 40 CFR Part Subpart VV cites relevant sections of Subpart A for equipment leaks (see P801). Other pertinent sections of Subpart A apply to affected facilities, regardless of whether they are specifically referenced in PTIs.

Comment 14: **The permit must incorporate hourly physical process limitations to limit the PTE within the major source threshold and to assure the accuracy of the air modeling studies.**

Response 14: For many years, Ohio EPA's General Conditions in its air permits have covered this issue. Section I.A.9 (Construction of New Source(s)) states: The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Therefore, where not explicitly restricted to a greater extent in the permit, short-term physical restrictions are found in the application upon which the permit is based.

Comment 15: **The draft permit contains no hourly mass particulate rate emission limitations and short term limitation on physical production rates or process feedstock rates. The perceived deficiency places doubt on rates in modeling studies and the ability of the facility to meet Ohio SIP limitations and/or Ohio EPA policies limiting Prevention of Significant Deterioration increment consumption (i.e. the 83% maximum increment consumption policy).**

Response 15: As stated above, General Condition I.A.9 of the permit limits (Construction of New Sources) limits short-term rates as stated by the applicant. The input rates in air pollution dispersion modeling are thereby supported. Ohio SIP emission limitations are thereby derived. Although short-term PSD increments are related to dispersion modeling studies, the particulate emission threshold for the PSD program, as discussed elsewhere in these responses, is not exceeded by this facility.

Comment 16: **The PTI does not limit the number of truck trips or vehicle miles traveled.**

Response 16: Although the permit does not contain limits on the number of truck trips or vehicle miles traveled, Ohio EPA reviews the applicants' estimates in the calculations for particulate emissions. Where appropriate, revisions to the estimates are requested.

Comment 17: **The permit application does not provide any technical support of the emission factors used.**

Response 17: Ohio EPA has obtained copies of numerous stack test reports for ethanol plants. Measurements of hazardous air pollutants are included in these test reports. Emission rates claimed by the applicant are consistent with these test reports.

Comment 18: **The loading rack emission limitation fails to consider fugitive VOC emissions.**

Response 18: Table 12-A of the application includes loading rack fugitive VOC emissions in the "Controlled VOC Emission Factor" column. The spreadsheet formulas are the sum of:

a) the percentage of captured but uncombusted VOC emissions, and

b) the uncaptured (fugitive) VOC emissions.

The calculations in the New Source Review discussion also included point source and fugitive emissions, as did the emission limit in the draft. The individual stack and fugitive emission limits will be identified in the final permit.

Comment 19: **The hazardous air pollutants (HAPs) contained in plant-wide fugitive emissions from plant components must be quantified to determine their contribution to plant-wide totals, both for individual HAPs and for total HAPs.**

Response 19: An estimate of the HAP component of plant-wide equipment fugitive VOC emissions from the applicant has been reviewed and added to the New Source Review tabulation. One ton per year has been added to the previously estimated 8 tons per year of individual HAP and 15 tons per year of combined HAPs

Comment 20: **The fugitive emissions from piping additional gas streams to the common thermal oxidizer should be added to the VOC and HAPs emissions estimates.**

Response 20: The plant-wide estimate of equipment fugitive emissions has been revised to include piping to the common thermal oxidizer, the loading racks and the biomethanator.

Comment 21: **The “Source Emissions” table in the Synthetic Minor Determination failed to show emission unit P801 for source-wide component fugitives at 8.85 tons of volatile organic compounds per year.**

Response 21: The emissions unit has been added to the table. The facility-wide VOC emission estimate remains below 100 tons per year and the permit remains synthetic minor.

Comment 22: **The wet scrubber control efficiency for VOCs and HAPs in the application was uncertain. The commenter stated that the acetaldehyde emission value included acrolein and formaldehyde.**

Response 22: A wealth of information is available for mass emission rates of VOCs from ethanol fermentation wet scrubbers from stack test reports at existing plants. Similarly, there is much information in many of those reports concerning mass emission rates of speciated HAPs. There is relatively little information in those reports, however, concerning inlet rates to fermentation wet scrubbers and, consequently, their removal efficiencies. When scaled for plant size, the VOC mass emission rate in this permit (P012) is reasonable compared to published results in those reports. Further, the VOC removal efficiency claimed in the application is also required in the permit (P012). Although this emissions unit has no individual HAP limit, the facility has a plant-wide HAP limit.

As for the application grouping acetaldehyde, acrolein and formaldehyde, an older analytical technique, which will not be used for this facility, does not distinguish these aldehydes. When planning for individual HAP emission rates and required controls, this was a more conservative approach.

Comment 23: A discrepancy exists between the short-term VOC emission limit requested in the application and the short-term VOC emission limit in the draft permit for emissions unit, P012. The control efficiency for VOCs is in question, as is the control efficiency for acetaldehyde.

Response 23: The short-term emission rate for VOC (P012) has been corrected in the permit to 8.4 pounds per hour.

Most of the individual volatile organic compounds emitted from fermentation are soluble in water. Some stack test reports show removal efficiencies of VOCs, as a group, of over 99%. As stated above, the permit repeats the control efficiency, 99.5%, asserted by the application.

Since acetaldehyde is significantly more volatile than most of the other VOCs from fermentation, its removal efficiency in a wet scrubber is expected to be not as great. Use of sodium bisulfite (SBS) in fermentation wet scrubbers has shown marked improvement in acetaldehyde removal. Acetaldehyde, as an individual HAP has a plant-wide emission limit. As stated elsewhere, the fermentation scrubber is required to utilize SBS. This source (P012), as well as other acetaldehyde sources, is required to have stack tests.

Comment 24: It can be reasoned that:

- a. Truck tankers loaded with gasoline at refinery and bulk terminal locations can take their loads to gasoline service stations loaded in vapor balance service and, after they have delivered those loads, they can then be used to accept a load of denatured ethanol [at this facility and which results in “switch loading”];
- b. For vehicles delivering gasoline to marketing points and using stage 1 controls [according to Ohio EPA regulations] at fuel marketing stations, the normal mode of delivery in Ohio is “dedicated vapor balance service”;
- c. A cargo tank having delivered gasoline in vapor balance service normally is saturated with organic vapors;
- d. Tanker trucks in prior gasoline service are expected to be used for denatured ethanol loading at this facility, along with,

- e. Tankers in “normal service” which had just delivered gasoline to this facility’s floating roof storage tank without vapor balance,
- f. Tankers in “dedicated ethanol service” whose prior load had been ethanol); and
- g. Tankers that meet a, b, c and d are the “worst case” for VOC emissions, compared to tankers that meet e and f, and should, therefore, be the scenario for potential to emit calculations.

A corrected emission calculation for truck loading (J001) should be used. Likewise for rail loading (J002).

Response 24: The emission calculations for J001 have to be corrected to accommodate a saturation factor of 1.0 for the worst case of dedicated vapor balance loading for trucks’ prior loads. The limit has been changed to 2.75 tons of VOC per year.

The emission calculations for rail car loading of denatured ethanol need not be changed, since the use of rail cars with previous loads of gasoline is very unlikely.

Comment 25: **The draft permit does not prohibit loading tank trucks or rail tank cars without evidence that they have passed an annual leak test for vapor tightness and speculated that a significant increase in fugitive VOC emissions would result.**

Response25: When being filled with denatured ethanol at this facility (J001 and J002), tank trucks and rail tank cars are required by this permit to be connected to vapor collection systems and a flare. If a tank truck or tank car is consistently in ethanol service, denatured ethanol loaded into that vessel previously containing ethanol will have a low vapor pressure and would produce very little fugitive VOC emissions from what leaks might occur from the vessel’s vapor space and the vapor lines. On the other hand, whether its previous load was gasoline or ethanol, a tank truck which is, commonly or intermittently, in gasoline service, is required to pass annual leak checks under OAC 3745-21-09(V), and would emit very little fugitive VOC emissions.

Comment 26: **The Ohio EPA is following a template for all ethanol plant applications, regardless of size, which allows them to fall under the100-ton limit. The commenter expressed concern that many existing ethanol plants were found to**

have emissions of a VOCs greater than 100 tons per year. What are the specifics for this plant? Please carefully review and compare to other plants. Please review issues of actual emissions and compliance.

Response 26: Ohio EPA has reviewed each emissions unit for its potential to emit, taking into account the types of emissions and the size of those emissions. Earlier ethanol plants were constructed with no VOC control on dryers for distiller's grains, which emitted over 100 tons per year. This permit requires the applicant to reduce the VOCs in the dryer emissions by at least 98% with thermal oxidizers. In this permit, specific emission controls were required on most emissions units to keep plant-wide annual emissions of VOCs below 100 tons. Actual emissions will be verified by stack test on most emissions units.

Comment 27: **To assure that the control efficiency is maintained in the fermentation scrubber (P012) several additional parameters should be monitored: the rate of sodium bisulfate addition, temperature of scrubber water and temperature of scrubber gas. The stack testing must be used to establish suitable floors or ceilings on parameters demonstrating compliance with emission limitations and that deviation thresholds and time intervals must be used to define malfunctions.**

Response 27: Indicators of absorbing wet scrubber performance include pressure drop, liquid flow rate, temperature and reagent flow rate. Evidence of absorbing wet scrubber performance includes stack tests. The draft permit requires a stack test on P012 for both VOC mass emission rate and VOC removal efficiency. The draft permit requires both setting of parameter values of pressure drop, liquid rate and sodium bisulfate addition rate during the stack test and requires maintenance of those values during operation. The draft permit requires reporting of deviations from those values and requires investigation of deviation incidents.

Added to the wet scrubber parameters to be set, monitored and reported in the final permit are scrubber bottom liquid temperature and scrubber exit vapor temperature. Added to the pollutants for which the scrubber stack will be tested is acetaldehyde.

Comment 28: Will E85 Inc. would be required to install and monitor air quality monitors on-site and in the surrounding area?

Response 28: The permittee will not be required to install and monitor air quality monitors on site or in the surrounding area. However, the permittee is required to install, operate, and maintain equipment to continuously monitor and record NOx emissions, fuel flow rate, and pilot flame which will aid in determining that the facility is in compliance.

Comment 29: The potential odors from wetcake storage call into question the Agency's BAT/BACT determination. The commenter suggested that E85 Inc. demonstrate control efficiency of the wet cake storage enclosure and that transportation of the wetcake both on-site and offsite.

Response 29: There have been recent amendments made to the permit application, and as a result there will be no wet cake emission unit permitted in this permit.

Comment 30: Several commenters expressed concern with the chemicals the facility would have on site, the emergency response procedures to address an emergency, and the degree of risk to the surrounding community.

Response 30: The commenters' concerns are addressed by the following Federal and State rules:
40 CFR Part 370 (Hazardous Chemical Reporting);
40 CFR Part 355 (Emergency Planning and Notification);
40 CFR Part 68 (Chemical Accident Prevention);
OAC 3745-104 (Accidental Releases Prevention)

Each of these regulations imposes obligations on facilities when their materials on hand exceed specified quantities. Air operating permits issued by Ohio EPA require compliance with OAC 3745-104 (Accidental Releases Prevention) as a general condition of the permit.

Comment 31: There will be a negative impact to the surrounding area. It was implied that local business and future economic growth for the area would be impacted, as well as a noticeable decline in residential property values. Note: Other commentors expressed support by stating that it will bring much needed revenue to the city, provide farmers with feed supplies for their cattle, and help the nation reduce their dependence on foreign oil. Also,

they stated that the facility would be monitored by numerous different federal and local agencies for environmental concerns and safety.

Response 31: The proposed permit to install for E85 Inc. addresses air pollution control issues exclusively. Ohio EPA is not granted legal authority to regulate issues pertaining to land use, property values, agricultural benefits, zoning, or resulting economic effects.

Comment 32: **Several commenters expressed concern that the additional pollutants from the facility would harm air quality.**

Response 32: Modeling results of potential emissions from the facility indicate that the emissions from the proposed ethanol facility will be within National Ambient Air Quality Standards and Ohio's Air Toxics rules. These standards are set to be protective of human health and environment. In addition, we have established restrictive emissions limits for the pollutants this facility will emit. Ohio EPA believes that if the E85 Inc ethanol plant complies with the final permit, public health will be protected.

Comment 33: **The addition of the E85 Inc. facility would bring few jobs to the area. Will local labor be utilized to construct the facility? I support for the facility stating because it would bring 50 jobs that actually pay a living wage to the area.**

Response 33: The proposed permit to install for E85 Inc. addresses air pollution control issues exclusively. Ohio EPA is not granted legal authority to regulate issues pertaining to job creation, land use, property values, zoning, or resulting economic effects.

Comment 34: **What will be the potential noise from the E85 Inc. facility? Concerns were expressed regarding noise levels from both operations and transportation of supplies to and from the facility.**

Response 34: Under Ohio's rules and laws, noise cannot be considered in Ohio EPA's air permit review process.

Comment 35: **Several commenters expressed concern for traffic impacts and traffic safety issues associated with the**

addition of a new facility, efforts toward rodent control around the grain storage areas, benefits to local grain suppliers, and taxation and levy issues for maintaining road integrity from added facility traffic.

Response 35: The proposed permit to install for E85 Inc. addresses air pollution control issues exclusively. Ohio EPA is not granted legal authority to regulate issues pertaining to land use, property values, rodent control, or zoning.

Comment 36: **One commenter questioned the impacts of storm water flow and runoff from the facility to adjacent properties?**

Response 36: The facility is currently working with the Division of Surface Water to obtain a stormwater permit.

Comment 37: **The applicant's submittal contains conflicting information on the number of dryer stacks.**

Response 37: There are two thermal oxidizers; one for each dryer.

Comment 38: **The condition II.E.1 for B001 and B002 of the draft permit contains a provision for testing to determine particulate emissions on the basis of a stated factor which is far higher than assumed in the PTE emission characterization.**

Response 38: Ohio EPA agrees with the commenter and accordingly, we have revised the permit.

Comment 39: **The permit did not specify whether wet or dry flu gas conditions are to be considered in review of a 9.0 ppm NOX and 30 ppm CO flue gas emission limitation.**

Response 39: Ohio EPA agrees with the commenter and accordingly, we have revised the permit.

Comment 40: **The applicant has used an incorrect stack gas exhaust volume which was based on the wrong natural gas f-factor.**

Response 40: Ohio EPA has reviewed the details and has concluded that the correct F factor has been used because there are two boilers.

Comment 41: Emission units B001 and B002 would not be able to comply with the stated volatile organic compound emission limitations as a result of using an incorrect emission factor.

Response 41: Ohio EPA has re-reviewed the applicable information and the terms and conditions have been modified as appropriate.

Comment 42: There was an error with Ohio EPA's introductory synthetic minor demonstration source emission tables with regards to VOCs and emissions.

Response 42: Ohio EPA acknowledges the error and accordingly, we have revised the permit.

Comment 43: The BAT determination utilized in applicant's controlled and uncontrolled dryer process VOC emissions are subject to challenge.

Response 43: Ohio EPA has reviewed the VOC emission data submitted by the applicant and have established limitations, monitoring requirements, record keeping and reporting criteria in the permit to ensure compliance.

Comment 44: The thermal oxidizers/dryers do not incorporate performance typical of low NOx burners and thus violate BAT for emission control.

Response 44: The dryer used in this process is not characteristic of a boiler or waste heat boiler, and in fact is not similar to a dryer found on most other ethanol plants. This dryer is an integral dryer burner and thermal oxidizer.

Comment 45: The Ohio EPA's draft permit contains no physical limitations to limit the potential to emit on the two grain dryers.

Response 45: The draft permit contains no physical limitations because the facility is permitted at potential to emit. Based on data submitted by the applicant, this emissions unit does not have to be restricted in order for the facility to stay below the threshold of a major facility.

Comment 46: The compliance monitoring and evaluation for volatile organic compound emissions from the dryer/thermal oxidizer and the fermentation scrubber process units

should embrace EPA's Midwest Scaling Protocol for Ethanol Plants; the draft permit should not confer sole discretion of the applicant to chose between EPA Methods 25 and 25A results for the evaluation of compliance with VOC emission limitations and the major stationary source threshold for VOCs with no adjustment for variability of these differing methods to detect the mass rate emissions of oxygenated volatile organic compounds.

Response 46: Ohio EPA has revised Permit Term E.1.a.iii for the fermentation process and dryer unit to require the use of EPA Method 18 or 320 in addition to EPA Methods 25 and 25A for VOC emission determinations.

Comment 47: For multiple sources EPA Method 5 is not adequate for determination of PM10 emissions.

Response 47: Ohio EPA has revised the testing terms to require the use of EPA Methods 201A and 202 or EPA Methods 5 and 202 in order to ensure all PM10 emissions are accounted for.

Comment 48: The mere measurement of cooling tower re-circulation water dissolved solids alone is not sufficient to physically limit the potential to emit of the cooling tower emission unit P021. The draft permit should be amended to incorporate a ceiling on the hourly cooling water re-circulation rate. In addition, there should be verification either by testing or by submission of a vendor guarantee and agreed upon testing to ensure that the process equipment is capable of meeting a drift elimination rate of 0.001%. As presently written, the draft permit only requires "...use of a high efficiency drift eliminator..." at condition II.A.2.2.b.a. This is not sufficient design assurance that the 0.001% drift elimination rate will have been achieved. As presently written, the "testing requirements" of Condition II.E.1.a are incapable of actually verifying compliance as they are simply a rote calculation making assumptions about drift rates and recirculation rates that may not, in fact, be true.

Finally, Condition II.E.1.b makes reference to a non-existent fabric filter located in the P021 process unit.

Response 48: Ohio EPA has revised Permit Term A.2.2.b.a for the cooling tower to require the use of a high efficiency drift eliminator with a minimum drift elimination rate of 0.001%. Additionally Ohio EPA has revised Permit Term E.1.b removing the “baghouse” reference.

Comment 49: **The testing requirement provisions of Condition II.E for both J001 and J002 are not appropriate as written for verifying elevated flare operation. It is not likely that any of these tests as shown in the permit could be carried out on an elevated flare stack. Nothing in the file indicates that Applicant is planning a ground flare with an elevated discharge stack. Moreover, there is no deadline to perform even appropriate flare tests for flare gas exit velocity and flare gas BTU content. There isn't even a deadline and a requirement to carry out flare testing provided by Condition II.F.**

The draft permit should be amended to establish flare gas exit velocity and gas BTU design/performance standards and testing requirements contained in 40 C.F.R. §60.18.

These should be federally enforceable conditions and there should be a deadline to perform such flare testing no later than 180 days after commencement of operation of the loading rack

Response 49: The flare associated with emission units J001 and J002 is an enclosed flare and not an open flare as the commenter implies. The test methods cited in Permit Term E for J001 and J002 are appropriate for testing enclosed flares. The permit does not contain a requirement to carry out the testing in Permit Term F because this testing is not necessary to show compliance with the emissions limitations established in Permit Term A. The testing and deadlines contained within Permit Term E.1. are sufficient to ensure compliance with the emissions limitations of this permit and are consistent with other similar permitted units in Ohio.

Comment 50: **As presently written, there are no requirements that test ongoing fabric filter performance after a single, initial stack test. Fabric filter controls can deteriorate from wear and aging effects on equipment. There is no way that the single stack test conducted shortly after the commencement of operations is capable of detecting**

the future current performance of the fabric filter emission control units potentially many years later. The draft permit should be amended to provide for fabric filter leak detection monitoring on all fabric filter controlled emission units.

All other emission units should be subject as well to periodic stack testing requirements that are more than just a single initial test.

Response 50: The draft air PTI requires initial emissions testing for numerous significant sources of air pollution at E85. Following construction, E85 will be required to obtain a permit-to-operate (PTO) which may require further periodic emissions testing. The need for periodic testing will be determined based on the results of the initial emissions testing, the compliance history, and other factors in accordance with Ohio EPA, DAPC's Engineering Guide number 16.

The permit requires both continuous pressure drop monitoring and daily visible emission checks for each baghouse. The monitoring and visible emission checks are adequate to reveal any failures in the control equipment. Therefore, fabric filter leak detection monitoring is believed to be unnecessary.

Comment 51: **E85 states that it will employ a molecular sieve to remove water from the ethanol azeotrope obtained during the distillation process, but does not indicate how VOC-contaminated wastewater rejects from the sieve are treated and disposed, or how the uncontrolled emissions generated by this operation are calculated.**

Response 51: Wastewater from the molecular sieve is recycled into the cooking process. Controlled emissions join distillation emissions in the distillation wet scrubber and the common thermal oxidizer. The uncontrolled emissions associated with the molecular sieve will be generated from leaks in the processes at various valves, seals, and connections. The expected uncontrolled emissions were calculated by utilizing USEPA's "Protocol for Leak Emission Estimate", EPA-435/R-95-017, November 1995.

Comment 52: **How much wastewater will be produced from the plant and what will be the type and amount of pollutants released?**

Response 52: The facility is working with Ohio EPA's Division of Surface Water to comply with the applicable requirements regarding wastewater discharges. The company will be required to comply with all applicable wastewater regulations and to obtain all necessary permit(s).

Comment 53: **One commenter expressed concern that the facility may be located in a flood plain.**

Response 53: Ohio EPA's air permitting process does not consider floodplain issues.

Comment 54: **The permit application does not identify any system for internal process spill containment and the potential VOC emissions associated with such events, including emission from wastewater sewers.**

Response 54: The emissions described in the comment are below those levels which require permitting.

Comment 55: **The permit application does not address the occurrence and disposition of fermentation upset, stalled fermentation or other upset conditions, whether any non-process blowdown of any of the process tanks can or will occur, or the emission potential and frequency of such events. E85's permit application also fails to identify all systems of the plant which have a system to bypass VOC emission control equipment, including information on what conditions will cause such bypasses to occur and the VOC emission potential during bypass incidents.**

Response 55: The permittee is required to report the malfunction of any emissions units or any associated air pollution control system(s) to the Ohio EPA. The permittee must also comply with all general and specific terms and conditions of the PTI and subsequent permits to operate. These terms and conditions specify the correct operation of each individual emissions unit and include the mandatory use of any associated control devices. Non-compliance with these terms and conditions is a violation of the air PTI and a violation of state and federal rules and regulations and may

subject the facility owner/operators to various fines and penalties or other enforcement actions.

Comment 56: The permit should be amended to specifically prohibit deliveries of grain to the facility via ordinary straight grain trucks without gondola-bottom gate style unloading capability. All fugitive emission calculations for the facility assumed that all deliveries would be made by rail road cars and trucks with bottom-style loading capability. Emission factors for grain unloading from straight trucks and dump vehicles are considerably higher and were never considered in the facility emission characterization during air permitting. If the facility intends to accept shipments by straight truck (for example, shipments generated by area farmers), then the emission calculation must be redone and a limit placed on the number of such vehicles per year that will be allowed for grain unloading at the facility. At the very least, the Applicant must disclose the expected split between deliveries between straight and hopper bottom trucks. If the subject facility is ever intending to receive undried grain directly from area farmers in straight trucks, the particulate emissions estimation method used for grain receiving would be a significant underestimate of actual emissions.

Response 56: Straight trucks can produce higher emissions than bottom unloading trucks. A requirement to record the amount of grain received by straight truck has been added to the permit to allow calculation of emissions from straight truck deliveries. A lower fugitive emission control efficiency could be expected if unloading from straight trucks were to occur with the receiving building doors open during high wind conditions. The fugitive emission control efficiency for unloading straight trucks will be determined based on operating experience at the facility. The permittee is responsible for limiting the use of straight trucks, if needed, to ensure the facility emission limits are not exceeded.

Comment 57: The Applicant is only required to perform a single stack test for carbon monoxide [for emission units B001 and B002]. There are no continuing parameter monitoring requirements that ensure compliance with the carbon monoxide emission limitation. Nitrogen oxide and carbon monoxide emissions will have an inverse relationship. The Applicant must not be allowed to

cherry-pick operating conditions to show selective compliance with NOX emission limitations through monitoring while operating in a manner which might increase carbon monoxide emissions. Under the present circumstances, such a condition could occur since there are no continuous compliance measures to assure compliance with the CO emission limitation.

Response 57: The permit contains adequate recordkeeping and monitoring along with emissions testing to ensure on going compliance.

Comment 58: **Condition II.E.1.d [emission units B001 and B002] allows for use of continuous emission monitoring to determine compliance with a NOX limitation of 0.1 lbs/MMbtu arising from federal regulations. However, there is no equivalent ability to use CEM monitoring to enforce against violations of the 9.0 ppm NOX limitation of Condition II.E.1.a or NOX time rate of mass emission limitations.**

Response 58: Ohio EPA agrees with the commenter and accordingly, we have revised the permit.

Comment 59: **The emissions characterization [P012-P013] relies on assumptions of very high control efficiencies of greater than 99.5%, but there are inadequate compliance monitoring requirements to ensure that such high efficiencies will be actually achieved. Parameter monitoring is not sufficient to ensure compliance and the failure to require continuous VOC emission monitoring renders the emission limitation unenforceable. The permit's bald references to Methods 25 and 25A are insufficient to evaluate compliance with the total mass rate of VOC emissions and specific procedures must be incorporated into the permit to render the permit practically enforceable.**

Response 59: The testing terms for emission units P012 and P013 have been amended to require the use of either EPA Method 18 and Methods 25 or 25A or EPA Method 320. Ohio EPA is confident that the combination of stack testing and parametric monitoring is sufficient to evaluate compliance with the applicable emission limitation. This approach is consistent with recent permits issued for similar emission units.

Comment 60: Condition II.E.1.b [emission units P023-P024] specifies the compliance determination method for nitrogen oxides and carbon monoxide, and other pollutants. This methodology requires use a of the stack testing methods under Condition II.E.1.a.iii with EPA methods 7E and 10. This compliance determination procedure section is not written to allow the use of NOX and CO continuous monitoring data to be used for enforcement of these emission limitations. The draft permit should be amended to allow the use of all credible evidence, including continuous emission monitoring and parameter data, in order to make a compliance determination.

As presently written, Condition II.E.1.b precludes use of CO and NOx CEM data for establishing a violation of emission limitations and such a provision is not acceptable under EPA's Credible Evidence Policy for permit enforcement.

Response 60: Ohio EPA agrees with the commenter and accordingly, we have revised the permit.

Comment 61: Unlike simple combustion systems, the Swiss Combi dryer units do not allow a single source parameter to be used to derive an F-factor in order to determine stack gas flow. The draft permit should be amended to include a requirement for a flow monitor to be used in association with continuous emission monitoring to ensure accurate flue gas flow volume rate determination with integration of this information with the continuous monitoring system for carbon monoxide and nitrogen oxides.

Response 61: Ohio EPA revised the permit to address this issue by modifying the term and condition C.9. by including specification 6.

Comment 62: Apart from a single stack test and ongoing thermal oxidizer temperature monitoring, no other monitoring is conducted to ensure that volatile organic compound and hazardous air pollutant emissions remain within emission limitations. There is no volatile organic compound continuous monitoring.

In order to comply with the Clean Air Act, at the very least, the draft permit should be amended to include a requirement for a continuous oxygen monitor at the thermal oxidizer exhaust. Both oxidizer temperature and oxygen monitoring are necessary to ensure proper combustion conditions in the oxidizer as a parameter monitoring surrogate for control of volatile organic compounds and hazardous air pollutants.

Response 62: The combination of stack testing, thermal oxidizer temperature monitoring, and continuous NOx and CO monitoring is sufficient to ensure compliance with the requirements of the permit. This approach is consistent with those utilized in recent permits from similar sources.

Comment 63: Because the uncontrolled emission rates are high and the Applicant has made a claim for very high control efficiency on the fermentation scrubber emission unit, continuous emission monitoring for VOC should be required for this emission unit. Continuous monitoring is also justified in circumstances where the process is subject to variability because of stages of fermentation in the units the fermentation scrubber controls.

Response 63: The fermentation process does not justify continuous emissions monitoring for VOC. The continuous fermentation process chosen for this facility is not believed to be as variable or complex as the commenter implies. Scrubber monitoring is adequate to verify proper operation of the scrubber, based on operating parameter ranges determined during emission testing. In addition, monitoring for VOC emissions is not readily implemented, as monitoring for VOC poses the same accuracy issues that are posed by VOC emissions testing, as noted elsewhere by the commenter.

Comment 64: The emission calculations done for grain receiving, handling and hammermills particulate emission control are written on the basis of "air flow" as "DSCFM" and "PM loading" as "gr/dscf." Fabric filter performance guarantees for the types of control units to be used on grain handling/receiving/hammermill sources provide for guarantees on the basis of actual cubic feet per minute rather than dry standard cubic feet per minute. Use of dry standard cubic feet per minute rather than actual cubic feet per minute means that all of the air flows for grain/material handling emission units are

understated. As a result, all of the emission estimates might be similarly understated; because actual emissions would be greater than provided in the emission calculation, the Owner/Operator would be unable to comply with emission limitations.

The Application should either provide actual cubic feet per minute air flows or certify on the record that all of the flow indicated as "DSCFM" are the same as actual cubic feet per minute.

Response 64: The grain loading requirements contained within the draft permit are a BAT limitation and are consistent with restrictions from recently issued permits for similar emission units. The emission estimates from the above referenced emission units were determined by multiplying the grain loading restriction with the expected air flow. Therefore, if the permittee utilized an actual air flow rate as a dry standard air flow rate the emissions estimate would actually be underestimated.

Additionally, if the facility violates the limits and requirements of the issued final air permit-to-install, Ohio EPA will take appropriate steps to resolve the matter including, but not limited to, enforcement action which could result in more air pollution controls and/or reduction of emissions at the facility.

Comment 65: **The Applicant has submitted facility layout plans showing Plant Area 0100 clearly identified as "gravel parking area." This area is shown as a park/staging area for a total of 24 trucks in an unpaved island in the truck road entrance to the facility. Applicant has not quantified the fugitive emissions from this unpaved area and has not provided clear, quantified area information for this gravel area. Condition II.2.2a & 2b for Emission Unit F001 clearly identifies these F001 provisions as applying only to "paved roadways" and "paved parking areas." There is no requirement in the permit that all roadways and parking areas be paved. As a result, the draft permit allows uncontrolled and uncharacterized emissions from the planned gravel parking areas on site.**

Response 65: The facility has not submitted an application for an unpaved parking area. Therefore, the facility is currently not permitted to install any unpaved parking areas.

Comment 66: The draft permit does not require the facility to demonstrate compliance with the stated 12.9 ton per year emission limitation. There are no requirements to maintain records on truck trips and/or vehicle miles traveled. Since there are no records reflecting the amount of truck traffic and VMT, it is not possible to determine compliance with the rolling 12 month period under the method shown for Condition II.E.1.a.

There is no recordkeeping for when sweeping controls are actually carried out, just for inspections to determine when control measures were necessary and the dates that unspecified control measures were implemented. There is no requirement for recordkeeping on what control measures were implemented. Failure to require recordkeeping and practical enforcement accountability on actual sweeping control measures means that there can be no reliance on the assumed 50% control factor to ensure compliance with the permit.

The inspection requirements of Condition II.C are incapable of making a determination of whether a sweeping controls are necessary or not since there are no criteria stated for the need for control measures pursuant to what is observed during a so-called "inspection."

Response 66: Fugitive emissions from roadways and parking areas are based on estimates and are not easily quantifiable. Ohio EPA believes that the estimating procedures utilized in the final permit for determining the roadways and parking areas emissions are sufficiently conservative (such as silt content) so as not to require additional recordkeeping to ensure compliance. This approach is consistent with the issued permits for similar facilities in Ohio.

Comment 67: The Applicant assumed that the payload for all truck deliveries was 25 tons, either by direct statement or by implication. Applicant noted truck trips were half full (35 tons) and half empty (10 tons). Applicant then when on to assume that the 28,953,750 gallons of denatured ethanol that would be shipped via truck would be in trucks holding 8200 gallons each. However, 8200 gallons of ethanol weighs 27 tons, so either applicant's upper bound truck weight for ethanol deliveries is

wrong or more trips will be made to haul the same amount of ethanol shipments at fewer gallons per truck. As noted in the prior paragraph, Applicant assumed empty trucks were 10 tons and full trucks were 35 tons. However, several other state air permitting jurisdictions, including Michigan, Illinois and Indiana, have issued air permits with fugitive emissions based on 40 ton full weight trucks and 15 tons empty weight trucks.

Response 67: The commenter incorrectly used the density of pure ethanol when calculating the weight of 8200 gallons of ethanol. Denatured ethanol has a lower density than pure ethanol and, therefore, 8200 gallons of ethanol will only weigh 25 tons. Additionally, since the truck weight utilized is an average of all trucks and not just tanker trucks, Ohio EPA believes that the weight utilized in the fugitive emission equations is adequate to calculate a conservative estimate of the fugitive emissions from the roadways and parking areas.

Comment 68: The Draft Permit should be amended to require quarterly testing of road silt loading and specification of a recognized test method for such silt loading monitoring. The Owner/Operator should be put under a burden of proving through silt loading testing that the assumptions made during potential to emit characterizations remain reflective of facility operations during the life of the operation. Determination of actual emissions should incorporate a real world determination of the silt loading rates and vehicle miles traveled at the site. Michigan has recently started requiring silt loading testing in ethanol plant permits.

Response 68: The silt loading coefficient utilized in the final permit is very conservative especially in comparison to those used in recently issued permits for similar facilities. Therefore, Ohio EPA does not believe it is necessary to require quarterly silt loading testing.

Comment 69: The applicant has indicated that it will receive a total of 20.1 MM lbs of cargo deliveries or just over 10,000 tons of deliverables. The site plan indicates such chemical deliveries will be at a truck-accessible location at area 1900 indicated as "chemical unloading and storage." If we assume that these deliveries will be roughly in 25 ton cargo increments based on 80,000 lb truck loads, this

means 400 additional truck trips that Applicant has not accounted for in their fugitive emission calculations.

Response 69: Ohio EPA has revised the permit to account for chemical deliveries.

Comment 70: **All of the truck trip lengths that will actually take place at the facility are considerably longer than the 0.68 miles assumed by Applicant when they submitted their application materials. Applicant has significantly understated their fugitive emissions from site roads because of failure to properly quantify vehicle miles traveled.**

Response 70: Ohio EPA has revised the permit to account for longer truck trips.

Comment 71: **Applicant's emission characterization assumes that only 10% of the grain deliveries to the facility will be in trucks, with the rest being made by railcar. Applicant's submittal does not show the worst case fugitive emissions from roads when grain deliveries exceed the assumed 10% proportion on grain deliveries. Condition II.A.2.2j, which alleges that the annual emission limitation reflects the potential to emit, is thus wrong as proposed in the draft.**

Response 71: Ohio EPA has revised the permit to account for 25% of grain deliveries occurring by truck.

Comment 72: **Two commenters stated that the low level of NOx emissions claimed by the applicant has been permitted with Ultra-Low-NOx Burners (ULNB) with Flue Gas Recirculation (FGR) but not with Low NOx Burners (LNB) with FGR.**

Response 72: The RACT/BACT/LAER Clearinghouse lists several permits with Low-NOx Burners and similar emission rates.

Comment 73: **One commenter inquired whether the draft permit adequately addresses carbon dioxide emissions.**

Response 73: Ohio EPA regulations do not address carbon dioxide emissions.

Comment 74: **Three commenters asserted that emission limits for HAPs should not be aggregated among multiple sources.**

Response 74: Since the facility does not exceed the Title V threshold for HAPs, there are no rules, State or Federal, which limit HAP emission rates for individual emissions units. Stack tests for HAPs have been required, where feasible, on multiple emissions units to confirm the HAP emission estimates. For storage tanks and loading racks, emission rate calculations have been well documented. The sum of the stack test results and the calculations will be compared with the threshold.

Comment 75: **One commenter stated that the permit should include efficiency, hourly and annual numerical emission limitations for acetaldehyde, acrolein and formaldehyde for the three highest-emitting emissions units, and particularly the efficiencies for the fermentation scrubber exhaust.**

Response 75: Short-term permit limitations for these HAPs are unnecessary to avoid long-term facility-wide thresholds. Stack tests will be conducted with emissions unit operating parameters, VOC emissions and Individual HAP emissions being simultaneously determined. An efficiency, hourly and annual numerical emission limit is given in the permit for VOCs, of which these three compounds are members, for each of the three emissions units. The greatest of these compounds, acetaldehyde, has an annual limit and has passed Ohio Air Toxics analysis, a short-term assessment against a Maximum Allowable Ground-Level Concentration. Therefore, public health is protected.

Comment 76: **The corrections (recommended by the commenter) to potential to emit calculations for the VOCs will likely exceed the PSD threshold of 100 tons per year.**

Response 76: Ohio EPA believes that the following emission controls:

1. A regenerative thermal oxidizer on more than ten different process vents;
2. The requirement of sodium bisulfite in the fermentation scrubber to augment acetaldehyde control;

3. Use of booster gas for combustion efficiency on the loading rack; and,
4. The requirement to burn biogas in the dryer burner,

are sufficient emission controls, when designed and operated properly, to prevent facility-wide VOC emissions from exceeding 100 tons per year.

Comment 77: **One commenter believes that the PM10 threshold for PSD has been exceeded, and therewith questions a PSD increment exemption and a fugitive source exclusion.**

Response 77: The commenter has given insufficient evidence of errors in PM10 potential to emit calculations. Ohio EPA believes that PM10 emissions will be less than 100 tons per year.

Comment 78: **One commenter asks whether Ohio EPA can assure that future increases in the size of this facility will trigger a PSD major source permit.**

Response 78: PSD rules allow a non-major source to expand to a major source without a PSD permit, if that expansion, itself is non-major.

Comment 79: **Commenters believe that corrections to potential to emit calculations cause the potential to emit acetaldehyde likely exceeds the MACT threshold of 10 tons per year.**

Response 79: Given the application of a regenerative thermal oxidizer on more than ten different process vents, and given the requirement of sodium bisulfite in the fermentation scrubber to augment acetaldehyde control, Ohio EPA believes that there are sufficient emission controls, when designed and operated properly, to prevent facility-wide acetaldehyde emissions from exceeding 10 tons per year.

Comment 80: **What are the effects of the USEPA change in the PSD rules for ethanol plants on this permit?**

Response 80: The effective date of USEPA action is expected to have no bearing on this permit action.

Comment 81: **What are provisions in case of nuisance?**

Response 81: Ohio EPA investigates cases of alleged nuisance.

End of Response to Comments