

**OhioEPA**  
Division of Air Pollution Control (DAPC)

**Response to Comments**

**Project: POET Biorefining - Marion formerly Marion Ethanol, LLC, Draft Air Permit- to-Install (PTI)**  
**Ohio EPA ID #: PTI# 03-17303**

**Agency Contacts for this Project**

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Ohio EPA held a public hearing on August 27, 2007 regarding draft air pollution permit #03-17303 for POET Biorefining - Marion. This document summarizes the comments and questions received at the public hearing and during the associated comment period, which ended on August 28, 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.

Proximity of facility to Ridgedale School and the effect of hazardous air pollutant (HAP) emissions to the residents

**Comment 1:** Multiple citizens expressed concern over the proximity of the facility to the Ridgedale School and the effect of the HAP emissions to the families in the area.

**Response 1:** The permit for the ethanol production facility was developed in accordance with air pollution rules and regulations which protect public health, including the health of sensitive populations such as asthmatics, children and the elderly.

Application of Best Available Technology (BAT)

**Comment 2:** The commenter states that the permit contains several points, including the boilers, ethanol loading and ethanol production, that BAT is not being required to control the plant's emissions for sources emitting fewer than 10 tons per year due to a recent statutory change. The BAT requirement, however, is part of the Ohio State Implementation Plan (SIP), and these exemptions violate the Clean Air Act because the exemption has not been approved by U.S. EPA. Such a change would likely be unlawful as SIP backsliding, prohibited by the Clean Air Act.

**Response 2:** 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) fewer than 10 tons per year of an air contaminant or precursor of an air contaminant for which an 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), effective December 1, 2006. 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 per year BAT threshold. Until these changes to the SIP are approved or disapproved by U.S.EPA, they are enforceable by the State of Ohio.

**Comment 3:** A commenter states that a new floor for BAT has been set by Ohio EPA requiring the boiler exhaust to be vented to the thermal oxidizers, or RTOs, in the recently proposed air permit

**for the Anderson's ethanol plant in Crestline. Because this permit does not require such venting, its controls are less and it fails to meet Ohio BAT.**

Response 3: The Andersons ethanol plant in Crestline, Ohio, and the POET Biorefining - Marion have installed different types of boilers. The Anderson facility employs a heat recovery boiler, whereas POET utilizes a standard steam generating boiler.

**Comment 4: A commenter states that the wet scrubber does not use chilled water which would increase its efficiency and should be required as BAT and should require sodium bisulfate injection as required at the E85 permits in Newark and Lancaster.**

Response 4: Each BAT determination is made on a case-by-case basis. Chilled water and sodium bisulfate injections were not considered BAT in this instance. If emissions testing or other additional information warrants a re-evaluation of BAT, Ohio EPA will address the situation properly.

Size of the facility

**Comment 5: A commenter states that the permit fails to establish that the facility will emit less than the 100-tons-per-year threshold that would subject the facility to regulation as a major source.**

Response 5: Ohio EPA evaluates proposed projects based on the information provided in the PTI application. The permit requires testing emissions units while operating at maximum capacity. As part of the initial testing and future testing requirements, the maximum capacity of each emissions unit will be analyzed to ensure that the operation has not been altered such that the presented maximum capacities and the associated emission limitations in the application have been exceeded. Ohio EPA will also evaluate the maximum capacity of emissions units based on inspections and data obtained in other required reports. If the company violates requirements contained in the issued final air PTI, 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 and a future permitting action.

Comments from ENSR Corporation on behalf of POET Biorefining - Marion formerly Marion Ethanol, LLC

**Comment 6:**        **The official name of the facility has been changed to POET Biorefining - Marion. Neither the ownership nor responsible official has changed.**

**Response 6:**        The final permit will reflect the official name change of the facility to POET Biorefining - Marion.

**Comment 7:**        **Multiple typographical errors**

**Response 7:**        **The following table addresses each typographical error as specified in the commenter's letter. It is noted whether or not the Agency will modify the permit and justification for such action.**

Emission Unit	Description	Response
B001	hexane modeled emissions	All air toxics language will be modified to reflect the total emissions of the permit, as the modeling was performed.
B001	hexane modeled emissions	same as above
F001	fugitive PE emission rate	Commenter states the applicable emission limitation is 13.61 TPY. Calculation shows an emission rate of 13.63 TPY. Will modify to 13.63 TPY.
F001	fugitive PM10 emission rate	Commenter states the applicable emission limitation is 2.65 TPY. Calculations show an emission rate of 2.73 TPY. Will modify to 2.73 TPY.
J001	VOC emission rate	Commenter states the applicable emission limitation is 3.55 TPY. Will modify as stated.
J001	CO emission rate	Commenter states the applicable emission limitation is 2.88 TPY.

		Calculation shows an emission rate of 2.90 TPY. Allowable rate will remain as stated in draft.
J001	NOx emission rate	Changed as specified by commenter to 1.15 TPY.  0.0334 lb NOx/kgal x 69,000 kgal/yr x ton/2000 lbs
P001	PM10 emission rate	Changed as specified by commenter to 0.38 TPY.  0.004 gr/dscf x 2500 dscfm x lb/7000 gr x 60 min/hr x ton/2000 lbs x 8760 hr/yr
P007/008/009	CO emission rate	Commenter requested change to 10.47 lbs/hr. Calculation shows an emission rate of 10.52 TPY.  process + RTO combustion  8.0 lbs/hr + (84 lb/mmscf x BTU/1000 scf x 30 mmBtu/hr)  Will be modified to 10.52 lbs/hr.
P007/008/009	CO emission rate	Will be changed to 46.08 TPY.  10.52 lbs/hr x 8760 hr/yr x ton/2000 lbs
P007/008/009	PM10 emission rate	Will be changed to 30.35 TPY based on the following:  6.93 lbs/hr x 8760 hr/yr x ton/2000 lbs  hourly limit will be changed to 6.93 lbs/hr based on the following:  process + combustion  (50,000 dscfm x 0.135 gr/dscf x 60 min/hr x lb/7000 gr x 0.1)= 5.79 lbs/hr  + (7.6 lbs/mmscf x scf /1000 BTU x 150 mmBtu/hr) = 1.14 lbs/hr

P007/008/009	VOC emission rate	Will be changed to 10.53 lbs/hr based on the following:  process + combustion  9.70 lbs/hr +  (5.5 lbs/mmscf x scf/1000 BTU x 150 mmBtu/hr) = 0.83 lb/hr
P007/008/009	VOC emission rate	Will be changed to 46.12 TPY based modification to lb/hr (see above).  10.53 lbs/hr x 8760 hr/yr x ton/2000 lbs
P007	VOC emission rate - Down Time	Changed as specified by commenter to 30.76 lb/hr  615.2 lbs/hr x (1-0.95)
P007	VOC emission rate - Down Time	Changed as specified by commenter to 7.69 TPY.  30.76 lbs/hr x 500 hr/yr x ton/2000 lbs
P010	PM10 emission rate	Changed as specified by commenter to 4.78 TPY.  [0.004 gr/dscf x (23,800 + 4000 + 4000) dscfm] x 60 min/hr x lb/7000 gr x 8760 hr/yr x ton/2000 lbs
P010	VOC emission rate	Will remain as stated in draft PTI based on the following:  5.0 lbs/hr x 8760 hr/yr x ton/2000 lbs
P011	PM10 emission rate	Changed as specified by commenter to 1.63 lbs/hr.  26,000 gal/min x 0.00005 x 3.79 L/gal x 60 min/hr x 2500 mg/L x lb/453592.4 mg
P011	PM10 emission rate	Changed to 7.14 TPY based on the following:  1.63 lbs/hr x 8760 hr/yr x ton/2000 lbs
	CO emission	Changed to 1.18 lbs/hr based on the following:

P012	rate	0.20 g/Hp-hr x 2680 Hp x lb/454 g
P012	SO2 emission rate	Changed as specified by the commenter to 10.72 lbs/hr.  0.004 lb/Hp-hr x 2680 Hp
P012	SO2 emission rate	Changed as specified by the commenter to 0.54 ton per rolling 12-month period.  10.72 lbs/hr x 100 hr/yr x ton/2000 lbs
P801	VOC emission rate	Will remain as stated in the draft PTI based on the following:  3.70 TPY from sources is VOC service + 4.60 TPY from equipment leaks in tank farm service, as is specified in the calculations submitted by the company.
P802	VOC emission rate	Changed as specified by the commenter to 2.17 TPY.  522,972 tpy x 0.0083 lb/ton x ton/2000 lb
P901	PM10 emission rate	Changed as specified by the commenter to 5.41 TPY.  0.004 gr/dscf x lb/7000 gr x 36,000 cfm x 60 min/hr x 8760 hr/yr x ton/2000 lb
P902	fugitive PE emission rate	Changed as specified by the commenter to 4.33 TPY.  201,480 TPY x 0.086 lb PE/ton x 0.5
P902	fugitive PM10 emission rate	Changed as specified by the commenter to 1.46 TPY.  201,480 TPY x 0.029 lb PE/ton x 0.5
T001 and T002	VOC emission rate	Changed as specified by the commenter to 0.37 TPY.  745.27 lbs/yr x ton/2000 lb

**Comment 8:** Emissions Unit P001, Part II.A.2.d and Emissions Unit P901 Part II.A.2.e indicate 40 CFR Part 60 Subpart DD is not applicable. Commenter believes this rule is applicable.

**Response 8:** The rule is applicable and the Agency will modify the language to reflect such.

**Comment 9:** Emissions unit P801, Part II.A.2.f indicates that the connectors at the facility will comply with 40 CFR Part 65, Subpart F. Commenter states that the facility will comply with 40 CFR Part 65, Subpart F for valves, pumps, relief valves and connectors.

**Response 9:** The Agency will modify the language to reflect compliance with 40 CFR Part 65, subpart F for the valves, pumps, relief valves and connectors at the facility.

**Comment 10:** Storage Tank T005 Throughput Limit should be changed from 3,045,600 gallons to 3,450,000 gallons.

**Response 10:** The Agency will modify annual throughput for tank T005 to 3,450,000 gallons per year.

Comments from Ken Lengieza, Director of Marion County Regional Planning Commission

**Comment 11:** Commenter states, "It should seem that all potential pollutants should be able to be mentioned, IF that is a prerequisite to future action in enforcing appropriate levels by Ohio EPA in the future. This is especially the case since the levels of projected pollutants vary significantly from one plant to the other. Is one 'low balling' its estimates or not? This needs to be verified."

**Response 11:** The Agency can only mention or establish limitations for regulated pollutants. Ohio EPA requires that each applicant estimate its emissions to the best of its ability and attest to those numbers being accurate to the best of its knowledge. Ohio EPA has accepted the proposed emissions in the application. The permit requires emission testing to demonstrate compliance with the established emission limitations contained in the permit.

**Comment 12:** Commenter states, “Best Available Technology’ was mentioned numerous times at these hearings. I would like your agency to consider requiring this where there could be a health problem consistent with what other states are requiring. But using this across the board, as some would suggest, would be unfair to this industry compared to others that could locate in Marion.”

Response 12: The answer to the commenters question is two-fold: (1) the determination to apply BAT to an emissions unit is determined based on the quantity of emissions and the installation date of the source; and (2) the Agency determines what the best available technology is based on what has been previously demonstrated to the director of environmental protection to operate satisfactorily in this state or other states with similar air quality on substantially similar air pollution sources.

**Comment 13:** Commenter states, “Given the fact that in these hearings it is hard to picture real-life comparisons between the tons of emissions per year for different types of activities, it can conjure up the worst fears. In the future, it might be nice to have some examples. How many tons of emissions would a typical charcoal picnic cooking fire for someone cooking two steaks emit, if it burned 24/7 for a full year?”

Response 13: As mentioned at the public hearing, it is difficult to provide a comprehensive, real-life scenario that would be comparable to the quantity of emissions from the facility.

Comments from Nina J. Lucas

**Comment 14:** The commenter states that a press release contradicts what is specified in the PTI as the annual ethanol production rate.

Response 14: The allowable emissions rates are based on 69 million gallons of denatured ethanol.

**Comment 15:** The commenter expressed concerned about PM2.5 not being a regulated pollutant.

Response 15: The National Ambient Air Quality Standard (NAAQS) for PM2.5 was designated on April 5, 2005. For this pollutant to be regulated by the state of Ohio, Ohio EPA must promulgate regulations to implement the NAAQS standard. During the SIP development period, U.S.EPA requires states to use PM-10 as a surrogate to

address the requirements of NAAQS for PM-2.5. By establishing a PM-10 emission limit in the interim period, states will effectively mitigate increases in PM-2.5 emissions and protect air quality because PM-2.5 is a subset of PM-10 emissions.

**Comment 16:**        **The commenter states that total air emissions from all units before and after emission control equipment should be specified in the permit. Also that the potential emissions during the downtime of control equipment be included in the total potential emissions to determine if the facility qualifies as a synthetic minor permit source.**

Response 16:        The uncontrolled emissions are presented in the permit application, which is available to the public; the current procedure at the Agency does not require uncontrolled emissions to be presented in the issued permits. Ohio EPA would expect that during scheduled downtime of the RTO where there is sufficient lead time for planning, associated sources of emissions will also be shutdown. Any scheduled maintenance activity of the RTO that does not result in a shutdown of associated sources of emissions must be addressed in accordance with OAC rule 3745-15-06.

**Comment 17:**        **The commenter states that a blanket volatile organic compounds (VOCs) emissions limitation does not adequately address HAP emissions and that the public should have full disclosure of each air contaminant. Also, the commenter states monitors should be installed to determine the emissions levels.**

Response 17:        Limitations for individual air toxic compounds and hazardous air pollutants are only established in very specific instances. Ohio EPA feels that the established limitations for volatile organic compounds effectively restricts emissions of air toxic compounds and hazardous air pollutants such that public health and the environment are protected.

**Comment 18:**        **The commenter states that the EPA should regulate bioaerosol emissions.**

Response 18:        Currently Ohio EPA does not regulate bioaerosol emissions.

**Comment 19:**        **Ammoniation and aflatoxins**

- Response 19: Aflatoxin contamination is a concern to all the industries that use and process corn. Aflatoxin contamination is uncommon in corn grown in Midwestern states, but can occur under stressed growing conditions such as a severe drought. Industries involved in corn use and processing employ practices to prevent aflatoxin contaminated corn from being received for processing. Such practices include sampling of corn grown in areas that may be susceptible to aflatoxin contamination and "turning away" such sources of corn. The Ohio Department of Agriculture is also involved regulating the presence of aflatoxin in corn and corn products. Regulations and industry practices that address aflatoxin contamination result in protection of public health.
- Comment 20: The commenter states that confined animal feeding operations (CAFOs) and ethanol facilities are normally in close proximity to one other and the distiller's grains from ethanol facilities are often fed to animals housed in CAFOs, the emissions from these two facilities should be aggregated.**
- Response 20: The air permit does not designate the final location of any products produced at the facility. Questions and inquires associated with permits for combined animal feeding operations or "factory farms" must be addressed by the Ohio Department of Agriculture.
- Comment 21: The commenter states air monitoring be required for all six regulated pollutants, including hazardous air pollutants in the carcinogen class, as well as PM2.5 and bioaerosols.**
- Response 21: The permit for the ethanol production facility was developed in accordance with air pollution rules and regulations which are protective of public health and the environment. Ohio EPA does not feel that an air monitor is warranted for this location at this time. Ohio EPA would certainly consider an air monitor in the future based any new or additional information that may warrant such monitoring.
- Comment 22: The commenter requests that regular disclosure of compliance at the facility be made available at the local library.**
- Response 22: All Ohio EPA documents, including those associated with this facility, are public record (except for confidential documents) and are available for review by the public at the Ohio EPA's Northwest District Office in Bowling Green, Ohio. Ohio EPA is considering setting up a document repository in the local library.

**Comment 23:** The commenter states that the applicant should fund a five person citizen's environmental advisory board.

Response 23: Current regulations do not address the above stated comment.

**Comment 24:** The commenter states that an environmental impact statement should be completed which addresses all of the emissions noted within her comments, those currently regulated and those that are not – those that are continuously emitted, those which may be emitted as a result of non-operation of emission control equipment, and those which may be emitted in case of a disaster.

Response 24: The permit addresses all pollutants in accordance with environmental regulations which do not require an environmental impact statement in this instance.

**Comment 25:** The commenter suggests that the applicant should provide specific security measures to address vandalism or terrorist attack.

Response 25: Current regulations do not address the above stated comment.

**Comment 26:** The commenter states that the applicant should establish a greenbelt buffer zone.

Response 26: Current regulations do not address the above stated comment.

**Comment 27:** The commenter states that financial assurances and accountability should be required of Marion LLC, the major construction contractors and the operator, in the event of harm to area residents or the environment, along with full disclosure of prior operating and litigation records as they relate to the applicant's credibility in meeting its social and economic responsibilities.

Response 27: Current regulations do not address the above stated comment.

**Comment 28:** Environmental justice for adversely affected poor and lower middle income working families affected by the installation of the facility.

Comment 28: As a recipient of federal funding, Ohio EPA is under a legal obligation to comply with Title VI of the Civil Rights Act. We have

fully reviewed the guidance developed by U.S. EPA for states regarding environmental justice. Ohio EPA meets our legal obligations and implements federal guidance through both our technical review and our public involvement activities on permit applications.

Additionally, any recipient of federal funding, such as Ohio EPA, must comply with Title VI of the Civil Rights code. Under U.S. EPA's Title VI implementing regulations, States are prohibited from using criteria or methods of administering its program which have the effect of subjecting individuals to discrimination because of their race, color or national origin. As a result, States may not issue permits that are intentionally discriminatory or issue permits that have a discriminatory effect based on race, color or national origin. While we do not have a specific environmental justice policy to follow, we consider all comments regarding environmental justice to ensure we comply with Title VI.

Ohio EPA has also found that the most effective way to address environmental justice concerns is by building partnerships with community organizations. For example, our Northeast District Office has worked with the St. Clair Superior Neighborhood Development Association's Environmental Workgroup for a number of years. Ohio EPA worked closely with this group to increase environmental awareness and compliance in the community. U.S. EPA has stated that this committee did one of the best jobs carrying out the principles of environmental justice in Region V. Some benefits to the neighborhood included:

- Increased public participation and input in the development of federal Title V air permits.
- Increased inspections of companies and resolutions of neighborhood concerns.
- Better assurance to the neighborhood that companies are in compliance with their environmental permits. The neighborhood received copies of inspection reports and permits for companies they are concerned about.

In addition to these benefits, Ohio EPA has also directed enforcement penalties into environmental projects that benefit the community. For more information on this partnership, please visit: <http://www.stclairsuperior.org/>.

Some other examples include:

Cleveland Air Century Campaign - Ohio EPA has been an active member of the Cleveland Clean Air Century Campaign since 2001. As a project partner of the Campaign, Ohio EPA acts as a technical resource and assists with projects that increase awareness and understanding of air quality issues. The Cleveland Clean Air Century Campaign engages potentially affected community residents and gives them an opportunity to participate in activities that affect their environment and/or health.

Earth Day Coalition's Sustainable Cleveland Partnership (SCP) - Ohio EPA has partnered with this group which is a local initiative in neighborhood-based environmental protection for low-income and/or minority communities. SCP training workshops have included such modules as the right-to-know laws, environmental risk regulation and reduction, environmental audits of specific neighborhoods, Title V air permit program. SCP organizes tours of industrial parks, participates in public hearings and media events, leads citizen campaigns on pollution prevention for large stationary sources, and builds capacity in a variety of minority constituent groups including citizens' councils, street and block clubs, community centers and development associations, and schools and churches.

We also develop specific communication plans for permits in areas that are deemed potential environmental justice areas such as East Liverpool and neighborhoods in Cincinnati.

**Comment 29:**        **The commenter requests that assessment be done of damages to the general environment.**

Response 29:        Current regulations do not address the above stated comment.

**Comment 30:**        **The commenter requests that a compensation fund be established for the loss of use of natural resources.**

Response 30:        Current regulations do not address the above comment.

**Comment 31:**        **The commenter states that the permit should be issued as a major Title V permit.**

Response 31:        The potential to emit for each criteria pollutant (VOC, PM10, CO, NOx and SO2) from this facility is currently less than the 100 tpy Title V threshold.

**Comment 32:**        **The commenter states that a representative for the citizens affected by the operation of POET Biorefining - Marion should be present during any negotiations between Ohio EPA and the applicant with respect to modifications of the draft permit.**

Response 32:        Any significant modifications to the permit would go through the normal permit process including the opportunity for public comment. Citizens are notified when any application for a permit modification is received, when any draft is issued, when any comment period is and when any public hearing is to be held. Citizens are given the opportunity to participate in these processes. Ohio EPA is amenable to meeting with citizens to discuss any permit modification should the occasion arise.

**Comment 33:**        **The commenter states that in the absence of stated conditions, the plant should be relocated to an agricultural area where the farmers economically benefit from its operation and desire its presence.**

Response 33:        Ohio EPA air permitting rules and regulations do not involve requirements associated with the location of a facility.

**End of Response to Comments**