

**COMMENTS OF ALLEN COUNTY CITIZENS FOR THE ENVIRONMENT  
TO THE OHIO ENVIRONMENTAL PROTECTION AGENCY  
CONCERNING PROPOSED AIR POLLUTION DISCHARGE PERMITS FOR  
BP CHEMICAL AND BP/PCS NITROGEN**

Presented on October 14, 1998

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**1 Introduction**

Allen County Citizens for the Environment is a citizen environmental organization concerned about protection of the environment and natural resources in Allen County, Ohio. These comments are offered in the hopes of advancing and protecting community and environmental protection in the City of Lima.

We ask that these comments be made a part of the public hearing record concerning the proposed Ohio EPA prevention of significant deterioration (PSD) permit for BP Chemical's proposed butanediol production process to be sited at the BP Chemicals complex in Lima OH.

In addition, we ask that these comments also be made a part of the public hearing record for proposed air pollution permits for debottlenecking the ammonia production process and for the new urea granulation process for BP/PCS Nitrogen.

**2 BP Chemical's Designation of Emission Data in their Application as Confidential and Ohio EPA's Apparent Procedural Acceptance of these Designations Violates Federal and State Statutory and Regulatory Requirements and Frustrates Public Participation and Review**

**2.1 Some of the Information in BP's Application for the Butanediol Production Process Which has been Designated as Confidential is Actually Emission Data which Must be Disclosed**

Of particular concern to ACCE is BP Chemical's effort to withhold emissions data and information as confidential. Here are some of the examples of BP Chemical's confidentiality designations of information which we argue in the strongest possible terms constitute disclosable emissions data contained in the 7/24/98 BDO permit application revision:

Design destruction efficiency for organics fed as liquids to the scrubber offgas incinerator (SOGI)

Constituents of 4 different hazardous waste streams which are not destroyed at 100% efficiency and which are emitted out of the SOGI and tanks as individual chemical emissions.

The heat input rates for the SOGI from scrubber offgas, supplemental fuels and from liquid wastes.

The SOGI carbon monoxide design destruction efficiency.

Chemical characterization of toxicants contained in catalyst emission releases from the process.

The chemical characterization of process vent streams from the BDO purification process which are not destroyed at 100% efficiency .or are otherwise emitted during flare outages.

Expected emissions from the hydrogen plant

Tank content temperatures.

Hazardous constituents contained in waste stream D.

Chemically characterized pound per hour emissions from the SOGI stack.

NOX control features of the SOG incinerator.

CO and HC content and mass rate of the scrubber offgas stream and chemically characterized content of the scrubber offgas stream (emitted uncontrolled during bypass incidents).

Design outlet concentration for SOGI NOX emissions.

SOGI operating temperature.

SOGI residence time.

Design and operating efficiencies for the maleic anhydride quench contactor.

Design, operating efficiencies and pressure drop for catalyst transfer system.

Typical exit gas conditions on the SOGI, bypass stack and catalyst transfer system stack.

Maximum expected stack concentration of carbon monoxide and hydrocarbons.

We argue here that all of these constitute emissions data for which public disclosure is required pursuant to federal and state law and current EPA guidance. All of the above parameters and information are either information about emissions, information needed to determine emissions, information needed to know chemical identities of emissions, information needed to plug into models that either predict or determine emissions, information about emissions under actual operating and design circumstances, information about the nature of emissions during failure/malfunction of air pollution control equipment or other information concerning emissions.

## **2.2 Federal and State Law, Regulations and Guidance Mandate that Emissions Data and Information Must be Disclosed Pursuant to Public Requests and that Trade Secret Designations on Emissions Data are Barred**

Emissions from the proposed BP Chemical plant are regulated under the Federal Clean Air Act. This law provides for mandatory disclosure of emissions data and provides a prohibition against making trade secret claims covering such emissions data and information.

“Any records, reports of information obtained under subsection (a) of this section shall be available to the public, except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or particular part thereof (**other than emission data**), to which the Administrator has access under this section if made public, would divulge methods or processes entitled to protection as trade secrets of such person, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18, except that such record, report, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this chapter or when relevant in any proceeding under this chapter.” 42 U.S.C. § 7414(c) (emphasis added)

EPA has defined “emission data” to include the following:

“(2)(I) *Emission data* means, with reference to any source of emission of any substance into the air –

(A) Information necessary to determine the identity, amount, frequency, concentration, or other characteristics (to the extent related to air quality) of any emission which has been emitted by the source (or of any pollutant resulting from any emission by the source), or any combination of the foregoing;

(B) Information necessary to determine the identity, amount, frequency, concentration, or other characteristics (to the extent related to air quality) of the emissions which, under an applicable standard or limitation, the source was authorized to emit (including, to the

extent necessary for such purposes, a description of the manner or rate of operation of the source); and

(C) A general description of the location and/or nature of the source to the extent necessary to identify the source and to distinguish it from other sources (including, to the extent necessary for such purposes, a description of the device, installation or operation constituting the source).” 40 C.F.R. § 2.301(a)(2)(I)

EPA has published further guidance concerning specifically which items of information it, at a minimum, considers to be emissions data. This guidance, which was published in the Federal Register, is attached (56 FR 7041-7043, published February 21, 1991). Virtually all of the information identified above as being subject to confidentiality designations disputed by ACCE is covered by one or more of these categories in the guidance as published by EPA in 1991.

Ohio Law also provides for disclosure of “emission data.”

“A) Except as provided in division (B) of this section, any records, reports, or information obtained under this chapter shall be available for public inspection, except that upon a showing satisfactory to the director of environmental protection by any person that such records, reports, or information, or any particular part thereof, **other than emission data**, to which the director has access under this chapter, if made public, would divulge methods or processes entitled to protection as trade secrets of that person, the director shall consider the record, report, or information or particular portion thereof confidential, except that the record, report, or information may be disclosed when necessary to sustain an action brought pursuant to section 3704.06 of the Revised Code or during an adjudication hearing conducted by the director on the denial, modification, or revocation of a variance or permit.” Title 37, Chapter 04 Ohio Revised Code § 3704.08 (A) (emphasis added).

All of these provisions of federal and state regulation provide ample basis for the disclosure of “emissions data” and that claims that such “emission data” can be withheld as confidential are barred by the applicable statutory law.

### **2.3 The September 8, 1998 Finding by Hearing Examiner W. Samuel Wilson that Ohio EPA Can Approve BP Chemical’s Permit to Install Applications Without Making a Final Determination on Contested Trade Secret Matters Involving Emission Data is in Error**

A September 8, 1998 memorandum by W. Samuel Wilson, Ohio EPA Hearing Examiner, states:

“The Non-Confidential copies are ready for immediate release to the public. My understanding continues to be that any Ohio EPA action regarding the approval or



disapproval of BP Chemical, Inc.'s various PTI [permit to install] applications is unaffected by the timing of any trade secret determinations. In other words, the PTI applications can be acted on prior to any trade secret determinations being finalized."

This finding is in error for the reasons argued below. We explicitly argue that Ohio EPA must disallow impermissible trade secret designations on emission data before Ohio EPA may issue a PTI/Prevention of Significant Deterioration Permit BP Chemicals for the butanediol process; failure to disallow impermissible trade secret designations on emissions data constitutes clear legal error and abuse of discretion on the part of Ohio EPA.

Applications for PTIs must contain the following:

"Applications for both permits to install and plan approvals required by rule 3745-31-02 of the Administrative Code shall contain such information as the director deems necessary to determine whether the criteria of rule 3745-31-05 of the Administrative Code are met and shall be made on forms prepared by the Ohio EPA." OAC 3745-31-04(A)

Under OAC 3745-31-04(D), applications for permits to install must conform with certain certification requirements:

"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." OAC 3745-31-04(D)

Under Ohio Air Pollution Law and Ohio Administrative Code, the Director of Ohio EPA must make a completeness determination on every application for a permit to install:

"(D) The director shall include in each written notice of the completeness of an application provided under division (A), (B), or (C)(1) of this section the date on which the application was determined to be complete." Title 37, Chapter 04 Ohio Revised Code § 3704.034(D) (with similar and analogous language under subsection (A) and (B))

A similar requirement is found at O.A.C. 3745-31-09.

Under OAC 3745-31-05(A), the Director of the Ohio EPA cannot approve an application that contains a claim which would violate any Ohio or United States law:

"The director shall issue a permit to install or plan approval, on the basis of the information appearing in the application, or information gathered by or furnished to the Ohio environmental protection agency, or both, if he determines that the installation or

modification and operation of the air contaminant source, solid waste disposal facility, infectious waste treatment facility, water pollution source, disposal system, land application of sludge, or public water system will: .....

(2) Not result in a violation of any applicable laws, ....." OAC 3745-31-05(A) & (A)(2)

In the present case, BP Chemicals cannot have provided a proper certification under OAC 3745-31-04(D), since their application attempts to declare emissions data as confidential when such confidentiality designations are barred by both Federal and State law as shown in the prior section. As such, BP Chemical's attempts at certification under OAC 3745-31-04(D) cannot be regarded as "true and complete," cannot be deemed to comply "with applicable state requirements," and that such attempts at certification by BP Chemicals in an application where emissions data is held as confidential constitute a "false and misleading statement."

Ohio EPA must make a clear decision that the application by BP Chemicals is complete under both Title 37, Chapter 04 Ohio Revised Code § 3704.034(D) and OAC 3745-31-09. However, in the case of the BP Chemicals butanediol PTI application where BP Chemical's certification is defective for the previously stated reasons, any such finding of completeness by Ohio EPA must be held as demonstrably in error and/or an agency abuse of discretion. Absent having a valid certification by BP Chemicals and a determination of completeness by Ohio EPA that is supportable on the record, Ohio EPA cannot proceed to make a decision that contemplates final permit issuance.

Moreover, Ohio EPA is barred under OAC 3745-31-05(A) from issuing a permit to BP Chemicals containing unresolved issues of unlawful denial to the public of emissions data since the "basis of the information appearing in the application" will "result in a violation of any applicable law[s]."

For the foregoing reasons, the September 8, 1998 conclusions of W. Samuel Wilson, Ohio EPA Hearings Examiner, that Ohio EPA may go ahead and issue the BP Chemicals butanediol production process PTI application without first resolving issues of the claims of confidentiality of emission data contained therein are in error and subject to challenge by the Allen County Citizens for the Environment.

**3. BP Chemical's Prevention of Significant Deterioration Best Available Control Technology Demonstration (and the Resulting Emission Limitations) for the Scrubber Offgas Incinerator (SOGI) Does Not Comply with Applicable Requirements of the Clean Air Act**

**3.1 The Clean Air Act Requires that BP Chemical Install Best Available Control Technology (BACT) and EPA Guidance Requires that BACT Must be Determined on a "Top Down" Basis**

Under the Federal Clean Air Act, BP Chemicals must install best available control technology when expected emissions for this new facility exceed the major stationary source threshold. A BACT review must be done for each pollutant for which the threshold is exceeded.

Best Available Control Technology is defined as follows:

"The term 'best available control technology' means an emission limitation based on the maximum degree of emission reduction of each pollutant subject to regulation under this chapter emitted from or which results from any major emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility through application of production processes or available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combination techniques for control of such pollutant. In no event shall application of 'best available control technology' result in emissions of any pollutants which will exceed the emissions allowed by any applicable standard established pursuant to section 7411 or 7412 of this title. 42 USC §7479(3)

Under EPA guidance and policy, sources must do a "top down" analysis of best available control technology.

The U.S. Environmental Protection Agency has described a 5 step "top down" BACT determination process which must be incorporated in PSD-BACT decisions. The process involves identifying all control technologies, eliminating technical infeasible options, ranking the remaining technologies by control effectiveness, evaluating the most effective controls and, finally, selection as BACT as the most effective means of control that is not rejected by the proceeding process.

EPA's "top-down" PSD-BACT process provides that determinations must be made on an "emission unit" basis:

“In the second step, the technical feasibility of the control operations identified in step one is evaluated with respect to the source-specific (or emission unit-specific) factors. A demonstration of technical infeasibility should be clearly documented and should show, based on physical, chemical, and engineering principles, that technical difficulties would preclude the successful use of the control option on the emissions unit under review.....” (From Step 2)

“.....all remaining control alternatives not eliminated in step 2 are ranked and then listed in order of overall control effectiveness for the pollutant under review, with the most effective control alternative at the top. A list should be prepared for each pollutant and for each emission unit (or grouping of similar units) subject to a BACT analysis.” (From Step 3)

“The most effective control option not eliminated in step 4 is proposed as BACT for the pollutant and emission unit under review.” (From Step 5) (EPA Draft New Source Review Manual, October 1990)

### **3.2 BP Chemicals’s Analysis for Best Available Control Technology for Nitrogen Oxides, Volatile Organic Compounds and Carbon Monoxide for the Scrubber offgas incinerator (SOGI) Fails to Conform to the Clean Air Act BACT Definition and to EPA’s Guidance on Top Down BACT Determinations**

#### **3.2.1 BP Chemical did not Consider Any Process Technology Options Associated with the Offgas Scrubber**

BP Chemical explicitly recognized in its application that the absorber offgas scrubber:

“....serves as the third stage of particulate emission controls and an initial stage of organic emission controls.” (BP App. At P. 10)

However, nowhere in BP Chemical’s application are technical, design and operational alternatives dealing with the offgas scrubber identified as part of a “top down” BACT analysis. For example, there is no discussion at all of various design and operational alternatives that would increase VOC collection efficiency, no discussion of increased scrubber pressure drop alternatives, no discussion of using pre-cooling and/or condensing of waste streams to decrease waste stream flow volume prior to scrubbing, etc.

A proper “top down” BACT determination would have extensive discussion of these matters since they are absolutely material to determining the emission limitation that represents the maximum degree of control that can be technically applied. Additional control of VOC achieved at the inlet of the scrubber offgas incinerator will necessarily have an effect on

emissions at the outlet of that device since such an incinerator will have its own finite level of control efficiency.

Finally, since BP Chemical also acknowledges that the absorber offgas scrubber is “primarily a product recovery device” (BP App at P. 10), the entire cost of the scrubber should not be ascribed to emission control in BACT financial calculations in any amended calculation to incorporate varying levels of scrubber control efficiency.

### **3.2.2 BP Chemical did not Consider Non-Air Oxygen Input to the Air Oxidation System as a Means of Limiting Waste Gas Molecular Nitrogen Flow and Resulting Nitrogen Oxide Emissions from the Scrubber Offgas Incinerator**

BP Chemical’s application and the Ohio EPA staff report note that production of nitrogen oxides in the absorber offgas scrubber result in significant measure from the remaining molecular nitrogen in the absorber offgas scrubber flow. This condition would arise from the use of air for introduction of the air oxidation system.

However, since air is only about 21% oxygen it would be technically feasible to use enhanced oxygen inlet feed to reduce the amount of nitrogen in the inlet to the maleic anhydride air oxidation reactor and thus reduce the potential for formation of nitrogen oxides in downstream combustion devices. In addition, this practice would also have the potential to significantly reduce the absolute volume of this waste gas flow and thus reduce the size/expense of downstream pollution control equipment. This technically feasible strategy for enhancing nitrogen oxide control in the scrubber offgas incinerator (SOGI) outlet flow was neither mentioned nor considered.

### **3.2.3 BP Chemical Never Performed the Required Top-Down BACT Analysis Showing All Technically Feasible Control Options in Order of Decreasing Control Efficiency for Each of the Pollutants from the Scrubber Offgas Incinerator**

Although BP performed at least the semblance of a top down analysis on their hydrogen reformer furnace, no such top down analysis was performed to arrive at nitrogen oxide, volatile organic compound and carbon monoxide emission limitations for the scrubber offgas incinerator (SOGI) outlet. There is mention of some control efficiencies on page 74 of the application, but these are not arranged in such a way so as to comply with EPA’s top down BACT determination policy. Mere mention of costs of \$12,000-\$13,000 per ton of nitrogen oxides removed do not show why these costs render additional control infeasible.

Although the text says that Appendix A contains selective catalytic reduction cost analysis, no such analysis appears in Appendix A in the copy provided to ACCE.

At a minimum, BP was under the obligation to display all combinations of technically feasible controls involving both the offgas scrubber and the incinerator. This analysis was required to show these alternatives in a decreasing control efficiency hierarchy and to show the incremental costs per ton of emission reduction for each such alternative.

There is no rendition of nitrogen oxide, volatile organic compound and carbon monoxide best available control technology decisions at other facilities and a showing as to why (or why not) such determinations should (or should not) be controlling precedent for the BP Chemical facility.

Only with the above analysis can a proper BACT analysis be done for each of the affected pollutants (nitrogen oxides, volatile organic compounds and carbon monoxide). BP Chemical and Ohio EPA are under an obligation to use the most efficient level of control with the maximum degree of emission reduction that is not otherwise eliminated by cost considerations. Nothing in BP Chemical's application or in the Ohio EPA staff report accomplishes this analysis.

As a result, the proposed permit application is incomplete and the proposed permit may not be issued until a proper top down BACT analysis has been performed and until emission limitations reflecting this analysis is imposed in the permit.

#### **3.2.4 BP Chemical has Not Considered Flameless Oxidation as a Combustion Control Technology Option**

Flameless oxidation is the process of waste gas emission control involving the use of a heated ceramic matrix to provide a medium for thermal destruction of inlet volatile organic compounds and carbon monoxide.

Flameless oxidation systems are available in a large range of inlet volume capacities and such systems can achieve 99.99% destruction efficiency for volatile organic compounds while limiting formation of nitrogen oxides. Flameless oxidation systems are available with heat recovery features that will allow recovery of the fuel value of the incinerated streams. There are over 70 commercial installations of this technology presently in place.

An article from EM – Environmental Manager about flameless thermal oxidation is attached. The developer and commercializer of this technology recently won the 1998 J. Deane Sensenbaugh Award from the Air and Waste Management Association.

**3.2.5 BP Chemical Did Not Consider Separating the Functions of Scrubber Offgas Incinerator into Two Units -- One for Waste Gas Incineration and the Other for Liquid Waste Incineration -- as a Technically Feasible Methodology to be Considered in the Top Down BACT Analysis**

Incineration of a water-laden but still flammable liquid waste streams poses increased technical challenges in the operation of a dual function incineration device. One challenge is that there is a heat rate penalty for the energy of vaporizing the entrained water content of liquid hazardous waste streams. (Unfortunately, BP Chemical has designated information on the water content of this waste as confidential.) This increased heat rate will contribute to increased nitrogen oxide emissions required for the fuel combustion associated with water evaporation.

BP Chemical has not shown in its BACT demonstration, nor considered alternatives associated with, pollution prevention process modifications that would either decrease the generation of the amount of water in the 4 liquid hazardous waste fuels or otherwise provide for additional separations or processing of the liquid waste streams to reduce the water content.

BACT demonstrations must consider:

“.....application of production processes or available methods, systems and techniques, including fuel cleaning or treatment or innovative fuel combination techniques for control of such pollutant.” 40 CFR § 51.166(b)(12)

In the present case, BP Chemical’s application did not indicate it considered additional removal of water from the 4 hazardous waste fuel streams as being an available and technically feasible method of “fuel cleaning” and did not consider “alternative production processes” for limiting water in hazardous waste fuels.

Although water is not a pollutant, its presence in fuels and attendant combustion systems increases emissions in the context of evaluating the nitrogen oxides produced in the overall combustion system.

**3.2.6 Neither BP Chemical, Nor Ohio EPA, Have Demonstrated that the Nitrogen Oxide, Volatile Organic Compound and Carbon Monoxide Emission Limitations Selected Reflect the Maximum Degree of Emission Reduction; Such an Approach Undermines and Evades the Technology-Forcing Aspects of the Prevention of Significant Deterioration Provisions of the Clean Air Act**

Nothing in the BP Application and the Ohio EPA staff report shows that the selected emission limitations were derived as a result of a maximum reduction analysis. The proposed limitations appear to be disconnected from any maximum reduction validity test.

At the same time, the absolute magnitude of the proposed emissions from the outlet of the scrubber offgas incinerator (SOGI) are large – 407.4 tons of VOC per year; 814.7 tons of carbon monoxide per year; 102.0 tons of nitrogen oxides per year.

All of the emission limitations appear to be mere exercises of imposing New Source Performance Standard and Hazardous Organic NESHAPS limitations on the source. This type of approach to setting Best Available Control Technology requirements does not comply with the Clean Air Act and EPA's "top down" BACT determination process.

NSPS and HON requirements do not reflect the best emission control performance that is both technically and economically achievable. Deliberate use of this approach constitutes a measured attempt by the applicant to avoid installation and accountability for achieving state-of-the-art emission control performance at the proposed installation. Acceptance of such an approach by Ohio EPA constitutes an abdication of its responsibilities to enforce the requirements of federal law and regulation applicable to BP Chemical.

**3.3 Actual Outlet Emissions Control Performance of the Scrubber Offgas Incinerator (SOGI) at BP Chemical's Acrylonitrile Process Should be Evaluated for Precedent for Setting Best Available Control Technology Emission Limitations for the BP Chemical Butanediol Scrubber Offgas Incinerator**

In June 1997, a compliance stack test was performed on the scrubber offgas incinerator (SOGI) at the BP Chemical acrylonitrile plant. This unit also burns both offgas and liquid wastes produced in that separate process.

The results of hydrocarbon destruction efficiency stack tests showed overall average destruction efficiencies of 99.6% to 99.8%<sup>1</sup> which is much better performance than the

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<sup>1</sup> Emission Test Report, Acrylonitrile Absorber Offgas Incinerator Performance Test, BP Chemicals, Inc., June 1997, Volume 1, by IT Corporation, Cincinnati OH; Table 2.6



98.00% destruction efficiency on which BP Chemical and Ohio EPA appears to base emission limitations for the proposed butanediol process.

### **3.4 BP Chemical's Proposed Permit Allows Larger VOC Emissions and Lower VOC Control Efficiencies Than from Similar Synthetic Organic Chemical Manufacturing Industry Facilities Contained in EPA's RACT/BACT/LAER Control Technology Clearinghouse**

A review was conducted of facilities in EPA's RACT/BACT/LAER Control Technology Clearinghouse. The following facilities were found under 3 different synthetic organic chemical manufacturing industry (SOCMI) process codes (64.000 – General SOCMI, 64.003 – air oxidation and process vents, and 64.999 – other SOCMI sources). The selection of facilities shown in the table either all have higher volatile organic compound control efficiencies than the 98% minimum for which BP Chemical is asking approval or they otherwise have low emission rates for what are likely to be comparable processes.

BP Chemical and Ohio EPA were required to consider technology transfer in any best available control technology demonstration and not look just at other butanediol production processes. Technology transfer considerations mitigate that all synthetic organic chemical manufacturing industry (SOCMI) processes be examined in any BACT determination for either volatile organic compound, carbon monoxide or nitrogen oxide controls.

We would also maintain that, in addition to SOCMI processes, technology transfer from liquid hazardous waste incinerator technologies must also be evaluated. Aspects of the BP Chemical application indicate that the primary contribution to the heat rate of the scrubber offgas incinerator (SOGI) is from liquid hazardous waste and supplemental fuels. As a result, it is entirely appropriate to look to liquid hazardous waste incineration technology and its achievement of 99.99% destruction and removal efficiency for volatile organic compounds and principle hazardous organic constituents as being an example technology for purposes of VOC BACT determinations for the scrubber offgas incinerator (SOGI). In 1997, EPA proposed maximum achievable control technology standards for hazardous waste incinerators that would limit stack emissions to 10 parts per million by volume for hydrocarbons and 100 parts per million by volume for carbon monoxide. This level of stack emission control performance is an appropriate level of control from which BACT emissions limitations for VOC and CO for the scrubber offgas incinerator should be derived.

As shown below, existing Prevention of Significant Deterioration Best Available Control Technology determinations of long standing show volatile organic compound control efficiencies of up to and including 99.99% which far exceeds the 98% control efficiency performance alleged by both BP Chemical and Ohio EPA to represent PSD BACT.

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BP Chemical and Ohio EPA should indicate a reason why each of the PSD BACT VOC emission limitations/control efficiencies below should not be considered controlling precedent in the application of volatile organic compound emission limitations to the BP Chemicals butanediol production process.

| RBLC ID   | Year | Site                      | voc % eff | voc emit                    | Process Code | Control                                             |
|-----------|------|---------------------------|-----------|-----------------------------|--------------|-----------------------------------------------------|
| TX-0174   | 85   | Akzo Chemie America       | 98.80     | 0.66 t/y                    | 64.003       | scrubber                                            |
| CA-0202   | 86   | Amvac Chemical Corp.      | 99.99     | 1.0 lb/d                    | 64.003       | afterburner, scrubber                               |
| MI-0067.A | 87   | Dow Chemical              | 99.90     | 1.3 lb/hr                   | 64.003       | afterburner                                         |
| TX-0019.B | 86   | Dow Chemical USA          |           | 3.8 t/yr                    | 64.003       | scrubber on reactor                                 |
| MI-0067.F | 89   | Dow Corning               | 99.90     | 0.01 lb/hr                  | 64.003       | condensor, scrubber on reactor/distillation columns |
| TX-0225   | 90   | Formosa Plastics Corp.    | 99.99     | 18.88 t/yr                  | 64.999       | incinerator, scrubber on regenerator                |
| TX-0224   | 90   | Formosa Plastics Corp.    | 99.99     | 1.23 t/yr                   | 64.003       | incinerator, scrubber on vents, process             |
| TX-0215   | 88   | Occidental Chemical Corp. | 99.90     | 0.10 t/yr vinyl chloride    | 64.999       | scrubber on waste incinerator                       |
| TX-0215   | 88   | Occidental Chemical Corp. |           | 0.30 t/yr on PSD BACT       | 64.003       | reactor vent                                        |
| TX-0215   | 88   | Occidental Chemical Corp. | 99.90     | 0.10 t/yr                   | 64.999       | incinerator                                         |
| TX-0212   | 88   | Occidental Chemical Corp. |           | 6.5 t/yr                    | 64.003       | emergency scrubber                                  |
| TX-0210   | 87   | Standard Oil Chemical Co. | 99.60     | 26.3 t/yr                   | 64.003       | incinerator on reactor                              |
| TX-0153   | 87   | Sohio Chemical Co.        | 99.80     | 26.9 t/hr                   | 64.003       | waste gas incinerator on acrylonitrile production   |
| MI-0067.C | 88   | Dow Chemical              | 99.00     | 3.4 lb/hr<br>0.72 t/yr      | 64.002       | incinerator with heat recovery                      |
| AL-0052   | 90   | Huls America              | 99.00     | 10.2 lb/hr<br>0.23 lb/MMbtu | 64.999       | oxidizer, thermal combination                       |

|         |    |                           |                |                       |                  |                                                         |
|---------|----|---------------------------|----------------|-----------------------|------------------|---------------------------------------------------------|
| TX-0214 | 88 | Sterling Chemicals, Inc.  | 99.90<br>99.90 | 13.7 t/yr<br>1.2 t/yr | 11.999<br>64.005 | boiler #A used as waste incinerator<br>incinerator dock |
| KY-0014 | 81 | B.F. Goodrich             | 99.00          | 10 ppm                | 64.003           | incinerator NESHAPs vinyl chloride reactor              |
| KY-0031 | 78 | Dow Corning               | 99.00          | 4 t/yr                | 64.003           | vapor recovery on chlorosilane pilot plant              |
| TX-0222 | 89 | Occidental Chemical Corp. | 99.99          | 35.0 t/yr             | 64.999           | incinerator 2                                           |

**3.5 The Best Available Control Technology Determination for Volatile Organic Compounds Does Not Include an Analysis of How the Selection of Different Emission Control Technologies and Potentially More Stringent Volatile Organic Compound Control Efficiencies Would Affect Unregulated Pollutants, Including Products of Incomplete Combustion**

There is no analysis in the permit application showing how the selection of various control technology options and overall volatile organic compound control efficiencies would affect unregulated pollutants, including all chemical-specific emissions which are not hazardous air pollutants under the Clean Air Act.

Assessment of unregulated emissions is part of the environmental impact assessment required in the consideration of best available control technologies considered. (See, for example, North County Resource Recovery Associates, PSD Appeal No. 85-2 (Remand Order, June 3, 1986)).

A proper and balanced consideration of the environmental impacts of proposed emission sources and control technologies selected will involve consideration and assessment of unregulated pollutants.

In the present case, we can expect significant quantities of unregulated pollutants and products of incomplete combustion as a result of the non-exemplary level of control efficiency assumed for performance of the scrubber offgas incinerator (SOGI) (a level of 98% control efficiency). There is no assurance in the application that any speciation of emissions from the scrubber offgas incinerator (SOGI) will involve more than simple 98% rollback of inlet emissions. To the extent that incomplete combustion takes place,

other chemical emissions, such as aldehydes, can be expected from the incinerator exhaust.

**3.6 BP Chemical's Impermissible Confidentiality Designations of Emissions Data Negatively and Determinately Interfere with Public Review of Prospective Best Available Control Technology Determinations on the Proposed Facility and Permit**

BP Chemical is trying to hold as confidential important emissions data that is integral to public review of the pending best available control technology determination in this case. The withholding of design and operating control efficiencies, heat rates, outlet concentrations, control device inlet concentrations, inlet and outlet gas characteristics and chemical characterizations all significantly obstruct public review of the control technology decision making and control technology assessment at the proposed facility.

We hold that such designations create appealable error in the setting of best available control technology limits since the resulting lack of knowledge obstructs technical and economic feasibility analysis of candidate control technologies by the public.

**3.7 BP Chemicals Impermissibly Limited its Review of Best Available Control Technology Decisions to U.S. EPA Region V Facilities for the Hydrogen Reforming Furnace**

BP Chemical's application indicates that their search of the RACT, BACT, LAER Clearinghouse was limited to Ohio and U.S. EPA Region V and that the results of this search was that no applications of selective catalytic reduction and selective non-catalytic reduction for nitrogen oxide control were found. (BP App at Page 77) The implication is that such installations may be found outside of EPA Region V.

BP Chemical further limited its review of the EPA Clearinghouse concerning the hydrogen furnace on selective non-catalytic reduction to "chemical plant or refinery furnaces." Experience from boilers and other facilities should be transferable.

There is no basis in federal prevention of significant deterioration regulation for limiting searches by geography and industry in ways that diminish consideration of technology transfer and control technology precedent as BP Chemical has done.

**3.8 Ohio EPA's Best Available Technology Limit of 20% Opacity on Visible Emissions from the Scrubber Offgas Incinerator (SOGI) and the Hydrogen Furnace is Too High**

Under Ohio EPA's regulations, emission limitations for BP Chemicals should reflect Ohio Best Available Technology. (OAC 3745-31-05(A)(3)). However, a full 20% visible emission limitation on these sources, which burn only liquid or gaseous fuels, is excessive and cannot be considered Ohio Best Available Technology. A visible emission limit on both sources of 5%, perhaps 10% at most, would be more appropriate.

**3.9 BP Chemical's Application Assumes that Simple Flare Control of Volatile Organic Compounds Meets or Exceeds 98% Control Efficiency Without Identifying Any Basis in Fact for such an Assumption, and Without Providing a Top Down Review of all Technically Feasible Flare Technologies**

It is simply assumed in the application that flare control provided for certain process vents at the proposed facility will result in volatile organic compounds being controlled with at least a 98% control efficiency. The same assumption is used to calculate a flare annual VOC emission total of 32.85 tons per year. No basis is provided in the application for assuming that these results are valid.

Reports prepared for a seminar on flare operational design and performance in Alberta Canada indicate that flare control efficiencies may be considerably less than what is assumed in the BP Chemical application. Adverse conditions for flare control efficiency include high cross-wind conditions that otherwise lower the temperature at the outer fringes of the flare flame zone below a temperature and residence time at which VOC destruction can be assured. The same crosswind conditions can introduce turbulent conditions that prevent complete combustion.

There is no analysis in the document of enhanced flare technologies with refractory-lined tip combustion zones down inside the flare pipe which enhance flame temperature characteristics for improved destruction efficiencies and improve flare performance. In addition, it is not clear in the application that better control of some of these waste gas streams would not otherwise be better achieved in dedicated fume/VOC control incinerators rather than flares.

#### **4 Unresolved Issues Associated with BP's Process Technology and Monitoring/Compliance Assurance Protocols on the Butanediol Production Process**

##### **4.1 The Proposed Facility Appears to be Designed with Only a Single Means of Incinerating Scrubber Offgas Waste Streams from the Maleic Anhydride Air Oxidation Reactor**

It appears from the permit application that there is only a single incineration device, the scrubber offgas incinerator, available for destroying waste stream VOC components in the maleic acid air oxidation reactor-absorber-scrubber process train. Aside from mention of the bypass stack for this process waste stream, there is no other indication of an operational alternative for this offgas. It thus appears that BP Chemical has no plans for backup incineration or waste stream flaring capability for this waste stream in the event of the failure of the scrubber offgas incinerator or some other need to take the incinerator offline. This failure to provide backup incineration is unacceptable from both an environmental management standpoint and from a prevention of significant deterioration standpoint.

There are no emission limitations imposed in the permit on the bypass stack and, as such, any level of uncontrolled emissions may be emitted. There does not appear to be any effective, enforceable means of limiting emissions during bypass, and there is no clear, up-front commitment by BP Chemical to limiting the impacts of these events. Given the 98% minimum level of control efficiency, it is possible that uncontrolled emission events could be 49 times higher (or more) than usual controlled emissions.

We argue that less than 100% online capability is a likely prospect for the scrubber offgas incinerator and that expectation and emission control planning for such usual and ordinary emission control failures mitigates for a system of backup control. BP Chemical has a duty to prevent emissions from being released uncontrolled during such events, particularly when alternate means of control, such as flaring or routing the offgas to another combustion device are technically feasible.

BP Chemical is bound by EPA's "Continuous Compliance" policy:

"In the strict legal sense, sources are required to meet, without interruption, all applicable emission limitations and other control requirements, unless such limitations specifically provide otherwise. However, of primary concern to the Agency are those violations that could have been prevented, through the installation of proper control equipment and the operation and maintenance of that equipment in accordance with proper procedures. We believe the concept of continuous compliance is essentially the avoidance of preventable excess

emissions over time as a result of the proper design, operation and maintenance of an air pollution source. This includes avoidance of preventable instances of excess emissions, minimization of emissions during such instances, and the expeditious termination of any instances which do occur.”<sup>2</sup>

In the absence of a specific and stringent requirement for source shutdown consistent with safe operating procedures after failure of the scrubber offgas incinerator, contemplation of continued source operation through use of emission bypass stacks during incinerator outages violates the “continuous compliance” policy of EPA.

The permit’s reliance on Ohio EPA Rule 3745-15-06(A)(3) (proposed permit at page 24), an extremely lenient rule allowing periods of uncontrolled emissions, will make it likely that such uncontrolled bypass events will occur, notwithstanding the fairly empty assurances in the text of this permit provision. Past regulatory history by Ohio EPA in the regulation of reactor offgas incinerator operation at BP Chemical’s acrylonitrile process buttresses this concern. Moreover, the Ohio EPA rule is silent on the matter of unscheduled outages of pollution control equipment and this failure will likely be cited by the operator as justification of continued process operation during unplanned scrubber offgas incinerator outages.

In the absence of provisions for backup control of the scrubber offgas waste stream, the permit should be amended to clearly and unequivocally require immediate source shutdown consistent with safe shutdown procedures whenever the scrubber offgas incinerator is not operational.

#### **4.2 Emission Bypass Events and Confidentiality**

Concern over emission bypass events is increased because of BP Chemical’s impermissible holding of information about the nature, chemical characterization and gas conditions of inlet process offgas as confidential. These inlet conditions will be the actual emission conditions during bypass incidents. It is unacceptable that BP Chemical seeks to hold this information as confidential when the likely emissions of volatile organic compounds and toxicants during these bypass incidents will be large.

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<sup>2</sup> June 21, 1982 Memo on the Definition of “Continuous Compliance” and Enforcement of O&M Violations, Kathleen M. Bennett, Assistant Administrator for Air, Noise and Radiation, U.S. EPA.

#### **4.3 BP Chemical's Permit Application Contains Inconsistent Information on the Stack Location of Bypass Emission Points**

BP's application contains inconsistent information concerning the stack conveyances for bypass emissions. On page B-5 of the permit application, emission point EP-900B is described as a separate scrubber offgas incinerator bypass stack from emission point EP-900A, which is the scrubber offgas incinerator stack. Each of these two stacks have different heights, exit diameters and UTM locations.

However, BP Chemical application indicates:

“The proposed SOGI does not have a bypass stack for the scrubber offgas stream when the incinerator is shutdown (malfunction). Rather, those gases will pass through the incinerator and exit the normal incinerator stack until the incinerator can be restarted.” (BP App. at P. 54)

These two statements regarding incinerator bypass cannot be reconciled and represent conflicting, confounding information.

Finally, there is no information at all in the application concerning bypass emissions that may occur when the absorber scrubber malfunctions as to whether these emissions are discharged uncontrolled or whether the unscrubbed waste gas stream is routed to the scrubber offgas incinerator.

#### **4.4 The Permit Application Fails to Disclose Potential Emission Consequences of Externally Discharged Pressure Operated Relief Valves on All Process Equipment**

The permit application does not list the location and emission potential of all externally discharged pressure operated relief valves (PORVs) on the proposed facility, or describe any other matter relating to the use, design and operation of externally discharged pressure operated relief valves.

For example, there is no indication that an opening of a pressure operated relief valve is telemetered to the operator. There is no indication of a system of record keeping on the opening of pressure operated relief valves. There is no assurance that operators will be able to know the absolute time duration of the opening of pressure operated relief valves for the purpose of predicting total emission releases from PORVs for toxic release inventory reporting, Clean Air Act Section 112(r) considerations, public notice, risk assessment and risk management purposes.



Without a system for knowing that a PORV has opened and for recording how long it stayed open and for telemetering all of this information to the operator, there can be little or no certainty concerning the effects of PORV releases on the public and the environment.

Finally, there is no indication that rupture disks are used with externally discharged pressure operated relief valves to ensure that these valves are not ongoing sources of fugitive emissions. Particularly for PORVs that are mounted in inaccessible locations, the use of rupture disks can be an important addition to a leak detection and repair program to control fugitive emissions from externally discharged PORVs.

#### **4.5 The Permit Provides for a Hazardous Waste Feed Tank for Process-Related D001 Wastes that does not Appear to have Tank Agitation and Mixing; the Resulting Phase Separations May Cause Serious Combustion Upsets in the Scrubber Offgas Incinerator (SOGI)**

In a waste stream that can contain significant amounts of water along with flammable hazardous and non-hazardous hydrocarbon constituents, phase separations can develop between layers of water and hydrocarbon materials that are insoluble or poorly soluble in water. In the present application and proposed permit, it is indicated that tank T098 for the thermal oxidizer "wastewater feed tank" is a floating roof tank.

It is unlikely, therefore, that this floating roof tank is outfitted with top to bottom pump mixing or other agitation designed to prevent phase separations. If phase separations occur in this tank, they will be likely to cause combustion upsets in the scrubber offgas incinerator (SOGI) when increasingly more water-bearing flow in liquid waste tanks is directed towards the incinerator combustion zone when pumping near a phase boundary occurs.

Phase separation-related upsets of this incinerator will likely cause significant emission transients for carbon monoxide and hydrocarbons. For any "burn tank," the floating roof should be abandoned in favor of a fixed roof tank with pump and/or center paddle agitation to prevent phase separations (along with carbon controls and vapor balance to control displacement and breathing losses). In addition, all of the D001 tanks at the site should comply with requirements for tank storage of waste for hazardous waste treatment, storage and disposal facilities.

**5. Comments on Specific Provisions of the Proposed Permit**

**5.1 Proposed Measures in the Permit to Demonstrate Compliance with Volatile Organic Compound and Carbon Monoxide Emission Limitations, Required Organic Compound Destruction Efficiencies and Other Requirements are Extremely Lenient and Do Not Assure Long-Term Continuous Compliance by the BP Chemicals**

The proposed permit only requires a single stack emission test for volatile organic compounds, carbon monoxide and nitrogen oxides within 3 months after the commencement of operations at the butanediol production process. There is no requirement for additional compliance assurance on the permit's emission limitations by periodic stack testing. The permit should be amended to require stack testing for all emission limitations, conducted under 100% production capacity conditions, every 3-5 years after commencement of operations.

The proposed permit grants to the BP Chemicals the sole discretion to establish "operating parameters for the SOGI" to establish long term compliance with New Source Performance Standards and the Hazardous Organics National Emission Standards for Hazardous Air Pollutants for the incinerator stack (see permit at page 29, provision B(1)(d). At the very least, these parameters should have required approval by Ohio EPA. However, continuous monitoring should be incorporated as the most appropriate solution for volatile organic compound, carbon monoxide and percentage reduction restrictions (see section below).

Aside from nitrogen oxides continuous emission monitors, the only other continuous emission/parameter monitoring requirement in the proposed permit is for monitoring of the temperature in the scrubber offgas incinerator. No other parameter monitoring is a required part of the proposed permit. Temperature monitoring of a chemical waste incinerator as the only required parameter cannot possibly ensure compliance with emission limitations, minimization of products of incomplete combustion and good operating/combustion practices in the scrubber offgas incinerator. Other operational variables play a key role which must also be monitored and controlled. Combustion performance in this type of incineration device will be a function of several physical parameters in the combustor and the nature of hydrocarbon inlet loading and liquid hazardous waste feed rates.

## **5.2 The Permit Should be Amended to Include Comprehensive Continuous Emission and Parameter Monitoring of the Scrubber Offgas Incinerator Discharge Stack to Ensure Compliance with Volatile Organic Compound and Carbon Monoxide Emission Limitations**

Given the high potential for emissions of volatile organic compound and carbon monoxide emissions and the need to ensure good combustion conditions in the scrubber offgas incinerator, the permit should be amended to impose additional, specific requirements on emissions and parameter monitoring.

The permit should be amended to incorporate maximum stack gas concentration requirements reflecting a proper best available control technology review for volatile organic compounds and carbon monoxide. Compliance with these emission limitations should be through an amended permit requirement for continuous emission monitoring for volatile organic compound and carbon monoxide emissions (along with a requirement for relative accuracy testing for such devices).

The permit should be amended to provide mandatory continuous parameter monitoring for all operating characteristics that are appropriate for a hazardous waste incinerator. These include stack oxygen, temperature and exhaust flow (via induced draft fan amperage or by direct measurement) (exhaust flow being a surrogate of combustion residence time), inlet SOG flow, liquid waste feed rate and scrubber pressure drop in the offgas scrubber.

## **5.3 Percentage VOC Reduction Test Method Ambiguity**

Condition A(4)(a) of the Additional Conditions (Prop. Permit, Page 28) indicates that the scrubber offgas incinerator (SOGI) shall achieve greater than or equal to 98 percent destruction efficiency for gaseous VOC streams and greater than or equal to 99 percent reduction efficiency for liquid organic waste streams. However, it is unclear exactly how these shall be demonstrated, except for submission of a test plan. It is not clear if both of these conditions will be tested at the same time, and if they are, how the outlet hydrocarbon is apportioned between liquid and gaseous inlet sources. It may, in fact, be impossible to make such an allocation on any factual basis. It is also not clear how water is accounted or adjusted for in the liquid waste streams during such a control efficiency test.

#### **5.4 Vent Scrubber Operational Restrictions Allows Un-flared Process Stream Emissions**

The vent scrubber operation restrictions (BP App. at P. 24) open the way for the release of vent streams without control through flaring (Provision B(1)(b) (the “or” provision potentially allows either method of control). Uncontrolled release of a process vent stream doesn’t constitute Ohio Best Available Technology to control volatile organic compound emissions, even though it may be permitted by the HON rule. In addition, contingent allowance of uncontrolled vent streams undermines volatile organic compound emission characterizations offered in the application which assume 98% control of all vent streams.

#### **5.5 Cooling Water Dissolved Solids Content Provision Inappropriately Drafted**

The operating restriction on cooling waste dissolved solids content (prop. permit at P. 31; provision B(11)) appears to be written to imply that the dissolve solids content restriction of 3,500 mg/l is a floor rather than a ceiling. The provision should be re-written to state the limit as a maximum concentration or maximum average concentration based on a stated averaging time that is permitted for dissolved solids in cooling water. Similar problems are noted in D(8).

#### **5.6 Refinery Fuel Gas Hydrogen Sulfide Content Provision**

Although the permit is written to allow BP Chemical to rely on the Clark Refining and Marketing continuous emission monitor for the hydrogen sulfide content in refinery fuel gas, there appears to be no way to enforce this monitoring requirement against BP Chemical. There does not appear to be a means provided so that BP Chemical will monitor hydrogen sulfide at times when Clark Refinery may fail to operate such hydrogen sulfide monitors. (Permit at page 39, provision B(12))

### **6 Outstanding, Unresolved Air Toxicant and Emission Characterization Issues with BP Chemical’s Butanediol Production Process**

#### **6.1 BP Chemical has not Adequately Characterized Increased Volatile Organic Compound Emissions from Disposal of Liquid Wastes in Wastewater Equipment**

Nothing in BP Chemical’s application indicates the potential for increased volatile organic compound emissions that may result from alternate liquid waste disposal

practices associated with dumping the four different D001 hazardous waste streams into wastewater sewers. Although the sewers and some of the downstream equipment will be controlled, the possibility exists that biological treatment units using air agitation and other techniques designed to expose wastewater to ambient air will have increased VOC emissions from such dumping. In addition, BP Chemical should be required to certify that compliance with existing NPDES permit provisions for biological oxygen demand, chemical oxygen demand and dissolved oxygen in wastewater effluents will continue to be maintained during introduction of D001 wastes into the wastewater system.

### **6.2 A Methanol Emission Limitation Should be Imposed on the Scrubber Offgas Incinerator Stack**

Given that predicted methanol ambient concentrations are a large percentage of acceptable Ohio screening levels of methanol, methanol emission limitation and testing requirements should be imposed on the SOGI stack. In addition, there should be review of whether cumulative methanol impacts from both the butanediol plant and all other sources at the site will not cause ambient methanol impacts to exceed screening levels.

### **6.3 Benzene in Butane Feedstock**

BP Chemicals admits in its application that butane feedstocks will contain a finite percentage of "C5 and heavier hydrocarbons." However nothing in the application indicates that any review has been done as to the benzene content of such feedstocks. The occurrence of benzene in the purification system for the butane feedstock and/or the maleic anhydride air oxidation reactor would pose some serious air toxics issues because benzene is an airborne carcinogen. No emission assessment and/or carcinogenic risk assessment associated with benzene has been performed in the application.

### **6.4 Maleic Anhydride and/or Maleic Acid Emissions**

We find it remarkable that the BP Chemicals application is completely silent on the matter of maleic anhydride and/or maleic acid emissions from fugitive and/or stack emission points in the proposed process. It is highly likely that maleic acid will be present in the absorber-scrubber-SOGI chemical process train. There is no mention of any potential emissions of these compounds in the application.

## **6.5 Products of Incomplete Combustion**

There appears to be no analysis in the application of potential products of incomplete combustion from the proposed scrubber offgas incinerator. In a facility that will be permitted to discharge large amounts of volatile organic compounds and carbon monoxide and that can only assure 98% VOC control efficiency, significant products of incomplete combustion can be expected. The application appears to provide no clear assurances that products of incomplete combustion were considered in characterizing VOC emissions from the SOGI. Mere rollback of inlet VOC emissions by the stated emission control efficiency will not adequately deal with potential products of incomplete combustion.

In the present process, with the lack of enforceable assurances of exemplary combustion, the following airborne toxicants and pulmonary irritants should be considered and evaluated:

formaldehyde, formic acid, acetaldehyde, acetic acid, butyraldehyde, butanol

## **6.6 Generation of a Potential Odorous Compound**

One ultimate byproduct of incomplete oxidation of butane and its subsequent oxidation products may be butyric acid. Given the process envisioned by BP Chemical there is at least some potential for this material to form and for its presence to occur in both liquid and gaseous waste streams and in distillation bottoms. Butyric acid is characterized by an extremely foul and rancid odor; if this material occurs in the proposed production process, significant care will have to be taken to avoid negative odor impacts from this substance.

## **6.7 Mercury in Refinery Fuel Gas Used at BP Chemical**

Although mercury has traditionally been examined only in refinery wastewater treatment sludge and incinerators for this sludge, it is now becoming more clear that mercury can appear in multiple refinery processes. EPA recently published a maximum achievable control technology standard affecting refineries that acknowledges the presence of mercury in emissions from fluidized catalytic crackers.

Mercury enters petroleum refineries in crude oil as elemental mercury and as organo-mercury compounds. It is highly likely that these highly volatile materials are partitioned along with other non-condensibles and the lowest boiling point compounds.

This means that significant amounts of mercury can be expected to partition into refinery fuel gas systems.

The presence of mercury in refinery fuel gas to be burned at BP Chemical should be evaluated based on a mass balance study of mercury at the Clark Refining and Marketing facility. Any mercury that is present in refinery fuel gas should be evaluated and controlled, and potential mercury emissions from use of refinery fuel gas at BP Chemical should also be evaluated and controlled.

**7 BP/PCS Nitrogen Use of 1992 Nitrogen Oxide Emission Reduction Credits from the Shutdown of the Old Nitric Acid Plant Violates PSD Regulations and EPA Guidance; BP/PCS must do a Prevention of Significant Deterioration BACT Demonstration for NOX at a Minimum for the Ammonia Debottlenecking and Urea Granulation Permits**

BP Chemicals is relying on 1992 nitrogen oxide emission reductions from the shutdown of its old nitric acid plant to generate netting credits to escape prevention of significant deterioration best available control technology review of its ammonia debottlenecking and urea granulation projects.

However, use of 1992 emission reduction credits of this nature is barred by U.S. EPA PSD netting regulations on “contemporaneous emission increases and decreases” if construction will commence more than five years from the date of the netting-related emissions reduction.

**8 Procedural Issues**

**8.1 Errors Associated with Failure to Disclose Emissions Data Before Permit is Granted**

For the reasons provided in the confidentiality section of this document, we hold that any attempt by Ohio EPA to issue the Butanediol permit to BP Chemical while the emission data confidentiality claim is unresolved creates an unmistakable, bright-line defect and error of law which will constitute grounds for appeal of this action.

## **8.2 Ohio EPA Must Produce a Responsiveness Summary in the Current Proceeding**

Federal regulations applicable to Ohio EPA's administration of Federal Prevention of Significant Deterioration permit proceedings require the production of a response document in reaction to public comments.

“At the time that any final permit decision is issued under [40 CFR] §124.15, the Director shall issue a response to comments. States are only required to issue a response to comments when a final permit is issued. This response shall:

- (1) Specify which provisions, if any, of the draft permit have been changed in the final permit decision, and the reasons for the change; and
- (2) Briefly describe and respond to all significant comments on the draft permit or the permit application raised during the public comment period, or during any hearing.

We specifically ask that Ohio EPA respond to each and every comment made in this document concerning the BP Chemical application and the proposed Ohio EPA permit.

## **8.3 Ohio EPA's Public Notice Failed to Indicate that an Appeal May be Taken to the U.S. EPA Environmental Appeals Board of the Butanediol PSD Permit Action**

Ohio EPA's public notice of this proposed proceeding was defective because it failed to inform the public that person's who participate in the hearing and/or file comments and who are aggrieved by any subsequent decision are entitled to appeal the matter to the U.S. EPA Environmental Appeals Board in Washington, DC.

## **8.4 Because of Serious Deficiencies Involving Technical and Legal Issues Associated with Issuance of the Proposed Ohio EPA BP Chemical Permits, We Ask that the Effective Date of any Final Ohio EPA Action to Issue the Permit be Delayed for a Period of Thirty Days to Allow Time for an Appeal to the U.S. EPA Environmental Appeals Board**

At the present time, the PSD review and permitting program of Ohio EPA is not approved for purposes of New Source Review (See 40 CFR § 52.1879) and Significant Deterioration of Air Quality (See 40 CFR § 52.1884). As a result, Ohio EPA is



operating PSD permit reviews and approvals as a “delegated” and not “authorized” state. Because of this circumstance, the Allen County Citizens for the Environment is entitled to begin an appeal of the issuance of the BP Chemicals permits to the U.S. Environmental Protection Agency Environmental Appeals Board pursuant to regulations at 40 CFR §124.19.

This comment has identified serious unresolved technical, regulatory and legal issues associated with the issuance of the proposed permits. As such, we ask that the effective date of the final permit decision be stayed for a period of 30 days after announcement by Ohio EPA of the final permit issuance decision.

We further ask that Ohio EPA notify all commenters in writing of its final decision with the required notice concerning potential appeals to the Environmental Appeals Board. For purposes of notifying the Allen County Citizens for the Environment, please direct all further notices to:

Attorney Bruce French  
Allen County Citizens for the Environment  
7174 Fort Amanda Road  
Lima OH 45806

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