

Sr. Diane Cauley, CSJ
Member of a 4-person Leadership Team
for the Sisters of St. Joseph of Baden

As Sisters of St. Joseph we are committed to and have a passion for the environment, social justice and an Ignatian spirituality of discernment.

1. In terms of the environment, there are known toxins that will be emitted from this petrochemical plant that will impact the air, the water and the soil of this region for many years to come.
2. These toxins will surely impact the health of those of us who live in this area. As a member of the LT, I am responsible for the wellbeing of 166 women religious in our Congregation, many of whom are frail elderly and live on our MH grounds in Baden.
I am equally concerned about the many other frail elderly who live in this region of southwestern PA, and the children of this and succeeding generations whose health may be compromised by these toxins. In particular, the benzene is a known carcinogen for childhood leukemia.
3. The Shell people have said that this project will create jobs in the area. I would like to think that the construction phase will employ local laborers; however, I have to wonder about the many hotels that have gone up in the area of the Beaver Valley Mall since the announcement of the cracker plant. Two of our Sisters began the Beaver County Anti Human Trafficking Coalition about 5 years ago. They have been working with hotel staff, police and government officials and other interested people to educate to the signs of human trafficking. If as expected there are young, single men coming into this area during the projected 5-year construction period, there is likely to be a drastic increase in the amount of human trafficking, which generally effects the most vulnerable among us, namely, children in the foster care system.
4. My question is, "What recourse do we as citizens have if Shell's many promises about jobs and environmental protections are not upheld? Will Shell pay the medical bills, pay to clean up environmental disasters, and/or pay for the mental and psychological damages caused by human trafficking?"

Finally,

Thank you for the opportunity to speak here tonight.

A multinational multi billion dollar company should not be permitted to use money to buy its way out of or around current standards when the citizens who live here will suffer the effects in their health, food, water, air and soil for years to come. Your job is to PROTECT — environment, people, health. Please do the right thing and require current →

standards, continuous monitoring, and collection
& data from Shell plants already in operation.

Is it possible to what is moral and not
waive what isn't even currently legal?
↓
restrictions on

Introduction NAME AND ADDRESS

My name is Ed Hill and I am a Representative of the International Brotherhood of electrical workers headquarters office and represent the 113,000 IBEW members in PA, NY, NJ and Delaware and I am a Beaver County Resident.

I testify today in support of the PA Dept of Environmental Protection's review and approval of Shell's request for amendment of the NPDES Permit and approval of the amendment of the Air Quality Plan.

With regard to my understanding of the requested amendment of the NPDES or storm water permit, Shell is requesting they not be required to manage and treat storm water run-off **if and when** the DEP determines that the water is clear from harmful contaminants. This request, including continued evaluation of the water by DEP, ~~is completely~~ within reason. Again, if the DEP
Seems completely

considers the water "Clean", then Shell is not required to treat it per the Permit.

Shell is also requesting amendment of the Air Quality Plan to allow credit from closed facilities to apply to the new project. It is my understanding upon review of the available information, that the shuttered facilities' ^{overall} output is higher than Shell has requested for use at their facility. In other words, an overall reduction. Both the EPA and the DEP have approved Shell's ~~request~~. AIR QUALITY PLAN

LASTLY

It is my understanding that Shell is in compliance with regulations in effect on both of their requests. Further, Shell has demonstrated a high level of concern for safety and environmental issues on the site to date. ^{→ EXAMPLE} Given they are both within the law in their request and have demonstrated "good citizenship", I believe the DEP should approve of the Permit amendments and encourage you to do so.

EDWIN HILL JR.

My name is Thaddeus Popovich and I currently live in Franklin Park Allegheny County. As a co-founder of *Allegheny County Clean Air Now*, I have worked diligently to expose the air and water pollution problems created by the DTE Energy Shenango coke plant, located six miles down the Ohio River from Pittsburgh.

The plant was shut down nearly a year ago! We no longer are fearful of the air and water contaminants, measured in tons per year, which spewed into our air and flowed into the Ohio River.

Our air and water are cleaner now! We expect that our incidences of cancer and cardiovascular, nervous and respiratory system problems will go down significantly. (See attached: *Table 10. Selected Potential Health Effects of Exposure to Toxic Chemicals Emitted at Shenango Coke Plant 2013*)

Today I want to talk about the Ohio River a source of drinking water for more than five million people who live in Pennsylvania and five other states, before emptying into the Mississippi River.

Because of its legacy as a “working river” the Ohio is still the

MOST POLLUTED WATERWAY IN THE ENTIRE COUNTRY!

These were words spoken recently by Collin O’Mara, President and CEO, National Wildlife Association, on an Allegheny Front program.

She suggests that when we value larger industrial facilities like the proposed Shell ethane cracker plant, we also should value the **economic loss** that occurs when you **degrade** a waterway like the Ohio River. Across America, the outdoor economy is about a **\$646 billion economy**, employing more than **six million people**. That compares very favorably to many of the largest industries in the country.

Many of the jobs in the outdoor economy are water-dependant jobs, related to fishing swimming or outdoor facilities. There are more than 25 million people who live in the Ohio River Valley Basin - almost 10% of the country.

We should be investing federal ,state and other resources in trying to clean up the legacy pollution in our region.





Think about it! If only Pennsylvania had provided a \$1.65 billion investment (instead of a tax credit to Shell) to grow jobs in our outdoor economy? Then we would be a recreational hub not a petrochemical hub



coalandcoke.blogspot.com

Shenango Coke Plant, Neville Island
 Residents within three miles: 70,598¹²⁰

Table 10. Selected Potential Health Effects of Exposure to Toxic Chemicals Emitted at Shenango Coke Plant, 2013

Chemical	 Cancer	 Cardiovascular System Problems	 Nervous System Problems	 Respiratory System Problems
Ammonia				●
Benzene	●		●	
Cyanide Compounds			●	
Lead Compounds	●	●	●	
Mercury Compounds			●	
Naphthalene	●		●	●
Styrene	●		●	
Toluene		●	●	

The Shenango Coke Plant on Neville Island has violated air pollution requirements for decades, and has been repeatedly ordered to reduce its air pollution since 1980. At least five consent agreements have been imposed over the years, requiring payment of penalties, investment in cleaner equipment, and reduced emissions.¹²¹

In 2008 DTE Energy Services bought Shenango, but has not rid the plant of its pollution problems. In fact, in 2013 the plant's total toxic releases, as reported to TRI, were higher than in any year since 2008, and the third-highest since 1997.¹²²

Air pollution around Shenango has been a problem for years, triggering several studies of the surrounding area. In 2009, the U.S. Environmental Protection Agency selected the Sto-Rox Elementary School, a mile southwest of the plant, for detailed air quality monitoring. According to the EPA's report of the results, the school was selected because the 2002 National-Scale Air Toxics Assessment (NATA) indicated "the potential for elevated ambient concentrations of hexavalent chromium and pollutants associated with coke oven operations, including benzene, arsenic, and benzo(a)pyrene, in air outside the school."¹²³

The study, which highlighted Sto-Rox's proximity to Neville Island, found that despite prevailing winds tending to blow emissions away from the school and toward the opposite bank of the Ohio River, wind patterns in the area did frequently bring emissions from Shenango toward the school.¹²⁴

The EPA monitoring found a host of toxic chemicals, including several that are normally produced at coke plants, in the air both inside and outside the school.¹²⁵

However, the EPA determined that they were not present at levels that they believed warranted further study.¹²⁶

Faced with continuing community complaints, the Allegheny County Health Department in 2015 began sampling air quality to the northeast of Neville Island, across the Ohio River and downwind from Shenango. The department is testing for concentrations of seven chemicals: benzene, ethylbenzene, toluene, o-xylenes, styrene, n-hexane and naphthalene.¹²⁷ Five of those—all but ethylbenzene and n-hexane—are emitted by Shenango.¹²⁸

Through the years, Shenango has only rarely obeyed emissions regulations. According to a consent agreement approved in April 2014, between July 2012 and September 2013, the plant violated emission standards more than three days out of every four.¹²⁹ An editorial in the *Pittsburgh Post-Gazette* termed that "a dreadful streak of noncompliance."¹³⁰

The 2014 consent decree is supposed to provide for daily monitoring of emissions, and allows the Allegheny County Health Department to impose strict limits on plant operations to ensure pollution restrictions are met.¹³¹ Yet, as of July 2015, the county health department's website said the plant was still not in compliance with air quality regulations.¹³²

In August 2015, the department said the plant had violated pollution regulations four times during the summer, when the plant flared off excess coke gas, causing "billowing emissions of black smoke," according to a *Post-Gazette* article.¹³³ The plant's response was that the flares and resulting smoke were not violations of its pollution permit.¹³⁴

**Public Comment on Lisa Widawsky Hallowell, Attorney, Environmental Integrity Project,
Regarding PA DEP's Draft NPDES Permit No. PA0002208, Amendment No. 1, to be Issued to
Shell Chemical Appalachia for the Shell Petrochemical Complex**

Public Hearing, December 15, 2016

Good evening. My name is Lisa Hallowell, and I am an attorney for the Environmental Integrity Project.

I would like to thank the Pennsylvania DEP for re-opening the public comment period and holding this hearing for the Draft NPDES permit. DEP's stated mission is "to protect Pennsylvania's air, land and water from pollution and to provide for the health and safety of its citizens through a cleaner environment."¹ The Clean Water Act and Pennsylvania's Clean Streams Law require DEP to issue NPDES permits that require facilities that plan to pollute to: 1) limit how much they will be discharging and 2) monitor their discharges. New, large dischargers, in particular, must meet the most protective standards. We are here tonight because the Draft Permit DEP has released for the Shell Cracker plant is deficient, and the public has many unanswered questions about the pollution from this facility, which will discharge a variety of toxic pollutants.² The Draft Permit fails to require Shell to comply with all of the limits that are legally required to keep the public safe.

For example:

1. PA DEP illegally exempted Shell from applicable Total Dissolved Solids (TDS) requirements.

- a. DEP acknowledges throughout the Draft Permit that Shell was seeking an amendment rather than a new permit in order to avoid compliance with more stringent regulations intended to reduce pollution and protect Pennsylvania's waters, most notably including TDS treatment requirements for new dischargers. It even admits that exempting this new facility from TDS requirements is "*not necessarily consistent with the intent of . . . the regulation,*" which "*is supposed to*" apply "*to an existing wastestream at an existing facility and not a new discharge from a completely new facility conducting different industrial activities.*"³
- b. DEP's Draft Permit would impose NO LIMITS AT ALL on TDS. DEP accepted Shell's argument that its new discharges are somehow "existing," but that is false. Shell is NOT an "existing" discharger of TDS because:
 - i. This is a brand new facility. The old facility has been demolished.
 - ii. This is a new industrial wastestream entirely – an ethane cracker releases a totally different type of wastewater than a zinc smelter.

¹ <http://www.dep.pa.gov/About/Pages/default.aspx>

² This includes benzene, fluorine, 1,2-dichlorobenzene, hexachlorobenzene, chrysene, hexachlorobutadiene, and vinyl chloride, among many others

³ DEP, Fact Sheet, at 31-32 (emphasis added).

- iii. DEP never “authorized” a TDS load for Horsehead’s zinc smelter’s discharges at all prior to 2010, when the new TDS limit came into effect. Although Horsehead applied for a permit in 2006, DEP never even issued a permit at all until 2015– well after the 2010 TDS limit was in place. And, there was no TDS load that DEP had “authorized” during that time. DEP must impose TDS limits that were adopted in 2010 on Shell.
 - c. Shell has admitted its discharges to the Ohio River – a drinking water source for millions – will be approximately *double to triple* the applicable limit of 2,000 mg/L, which puts health and the environment at risk.
 - d. DEP itself has admitted: **“The major concerns with high concentrations of TDS in water are the adverse effects it may have on aquatic life, human health, and drinking water supplies.** High concentrations of TDS can make waters saltier, harder, and potentially toxic to fish and other wildlife.”⁴
- 2. DEP failed to impose technology-based hexavalent chromium limits on Shell that are required for the Petroleum Refining Category.**
- a. By failing to subject Shell’s Petrochemical Plant to the Part 419, Subcategory E ELGs, DEP impermissibly failed to include applicable TBELs in Shell’s permit. Most notable is that numeric limits would apply for total chromium and hexavalent chromium, the latter of which is a known human carcinogen (and the former of which Shell also managed to escape limits for under Part 414 in the Draft Permit – see Section III.D.4 of these Comments). 40 C.F.R. § 419.56; *see* Fact Sheet, at 24. Those limits must apply.
- 3. The Draft Permit deletes limits and monitoring requirements related to existing, persistent pollution at the site at the end of an “Interim Period” without defining “Interim Period” and without requiring abatement of the pollution.**
- a. DEP’s deletion of limits for arsenic, lead, and other toxic pollutants without ensuring the discharges have been cleaned up places health and the environment in jeopardy.

In order to adhere to its own stated mission, DEP must require Shell to submit a new application that is required for all new facilities and must release a new Draft Permit that holds Shell to all applicable water pollution requirements.

⁴<http://files.dep.state.pa.us/water/Wastewater%20Management/WastewaterPortalFiles/TDS/TDSPlainLanguageSummary11-3-11.pdf> (“Total Dissolved Solids (TDS) are dissolved materials . . . (e.g. chloride, sulfate, sodium, manganese) in water. TDS is naturally present in rivers and streams, but it can be greatly increased as the result of runoff, mining or industrial or municipal treatment of water”).

Dec. 15 Meeting, Hearing On Shell Ethane Plant Air, Water Permit Changes in Beaver County

Thank you for giving me the opportunity to provide a testimony this evening. My name is Bridget Johnson, and I am a native of Western PA, born and raised in this region and currently reside in Westmoreland County. As I stand here tonight I'd like to share my thoughts on this matter. To give you a brief summary of my professional experience, I've worked in the insurance industry, medical and in the last decade I've been in the construction industry. Currently, I work for Mascaro Construction, one of the top General Contractors in Pittsburgh.

My employer is a family owned business that has been a contractor in this region for 3 decades. Myself and fellow employees have been an active part of the Shell Cracker project from early on. As a local union contractor we are excited to have a project like this in our area and hope it's one of many that comes to the Marcellus - Utica region.

As I mentioned being a native to Western PA and a professional in the industry for some time now, I've been watching how the Marcellus Shale has transitioned PA, WV and OH. I can remember 8 years ago being at a conference and the topic at the time was, how this Natural Resource, Marcellus Shale we have found is going to change our landscape as we know it. Our economy was going to change as well and our communities, we were going to gain many opportunities of new development as people came to our towns for employment. This has all happened and the growth and development has brought many jobs to our communities we reside in today, restaurants, hotels and residential homes. These are exciting times for Pennsylvania, Ohio and West Virginia.

The environment is always a concern with this type of growth and the products being produced from the Shale will bring all sorts of manufacturing and more development and jobs. As advanced as technology is in today's day in age, I feel confident as do many, that companies that are designing, engineering and building these pipelines, compressor stations and plants. They are taking every precaution to protect neighboring facilities, homes and existing environments and following the DEP and the EPA guidelines.

Shell is one of the first of many large companies that are coming to this region investing in PA. They hire experts from all over the world in all facets of the petrochemical process and know how to build and maintain a state of the art facility such as this cracker. This is only the beginning of the transition to our landscape here in PA. In years to come we will continue to see the use of natural gas. Natural gas-fired power plants generating electricity just to name one of many benefits to come from this resource. Natural gas is much cleaner and safer for the environment and air we breathe.

Today the health and safety of employees and the protection of the environment in the performance of our professional duties are fundamental in large corporations like Shell and the company I work for. In order to operate a business today you have to abide by environmental and safety guidelines and must be responsible when it comes to the environment and I believe Shell has gone above and beyond.

In closing:

I know that both me and my employer Mascaro Construction are pleased that Western PA is the location Shell has selected. We prefer to have multibillion dollar investments being made in our region instead of other areas that won't bring economic growth to the futures of our generations to come.

Bridget Johnson

716 Locust Street

Greensburg, PA 15601

I support the objectives that the Clean Air Council has emphasized for the DEP's hearing tonight at the Central Valley High School in Monaca, PA for the Water Pollution Permits & Emission Reduction Credits for Shell's proposed Ethane Cracker Plant.

I support working to reduce emissions of VOC's for plants that are emitting now rather than purchasing credits from facilities that are already closed or are reducing their emissions from past levels. Let's push to reduce emissions now or in the future that would impact locally, especially in the Beaver Valley near the Cracker Plant site. I support working to reduce existing industrial emissions more and getting Shell to purchase any resulting credits. If anything is needed for compliance beyond the VOC's then Shell and DEP should look to reduce Ozone in Beaver County and from facilities that are producing now or in the future.

The same goes also for small particulates which can be very harmful getting by the body's natural defenses to penetrate deeply through the lungs, circulatory system, and more.

Shell should monitor vigilantly and protect from contaminated water by heavy metals, asbestos and other materials. The newly visible 7-foot coverage by non-impacted soil is perceived by many to cover ground and hills on and near the Shell site which are contaminated by many decades of previous industrial activity. Don't let those materials get loose.

Cordially,

A handwritten signature in cursive script that reads "Peter W. Deutsch".

Dr. Peter W. Deutsch

Emeritus Associate Professor of Physics Penn
State University Monaca, PA 15061

Good evening, my name is Rob Walters and I am the executive director of Three Rivers Waterkeeper. I am here to speak to you about our concerns with Shell's application and Pennsylvania DEP's draft permit for an amendment to a preexisting NPDES permit.

The mighty Ohio River is 981 miles long and sadly ranks as our nation's most polluted waterway because of the over 24 million pounds of industrial pollution that is discharged into it every year. It is also source of drinking water for over 5 million people. The section of the Ohio River I am going to speak about starts at the proposed location of Shell's cracker facility and ends at the PA/OH boarder, about 14 miles. Within those 14 miles, there are five surface water intakes that provide drinking water to 323,000 people in Pennsylvania.

Let's talk about drinking water. EPA sets limits for over 90 contaminants in drinking water to protect human health and that water systems can achieve using best available technology. Every 5 years, the EPA releases a list of 30 unregulated contaminants that are required to be monitored, but emissions limits are not mandatory. Eight chemicals that Shell has proposed to discharge into our drinking water supply fall under the unregulated category. To save myself from embarrassment I will not attempt to read you these chemicals names to you, but have supplied them in my written testimony. A summary of the possible side effects of these eight chemicals if not closely monitored are birth defects, malformation of the spinal column, pelvis, and legs, nausea, vomiting, vertigo, and convulsions to name a few. We ask that under the Safe Drinking Water Act Pennsylvania DEP regulates these chemicals being discharge from the Shell facility.

Another major concern is Pennsylvania DEP's ability to enforce potential violations at the proposed Shell's Cracker facility. Just downriver within a half mile of Shell's proposed site are two examples of DEP's inability to enforce Clean Water Act laws. Since December of 2006 Nova Chemicals has operated under an expired NPDES permit and as of May 2015, Nova Chemicals has had 23 permit violations that have not been resolved or enforced. BASF has operated under an expired NPDES permit since September of 2009 and as of May 2015, BASF has had 20 permit violations that have not been resolved or enforced. We understand that DEP's ability to perform their duties relies on greater need for resources and staffing, that is way we are asking to approve a final permit with the most stringent of regulations.

(1) Unregulated contaminants on monitored list that are also on Shell's draft permit:

- (a) 1,1-dichloroethane (2012-2016 list)¹
 - (i) Possible human carcinogen
 - (ii) Acute (short-term) inhalation exposure to high levels of ethylidene dichloride in humans results in central nervous system (CNS) depression and a cardiostimulating effect resulting in cardiac arrhythmias.
 - (iii) Studies in animals have reported effects on the kidney.
 - (iv) No information is available on the chronic (long-term), reproductive, developmental, or carcinogenic effects of ethylidene dichloride in humans.
 - (v) An oral animal study reported a significantly positive dose-related trend in hemangiosarcomas, mammary tumors, liver tumors, and endometrial stromal polyps. EPA has classified ethylidene dichloride as a Group C, possible human carcinogen.
- (b) Chloromethane (methyl chloride) (2012-2016 list)
 - (i) Studies in mice have shown causes birth defects; exposure during pregnancy to human fetus may cause malformation of spinal column, pelvis, and legs.
 - (ii) Ingestion can cause nausea and vomiting; skin contact can lead to frostbite.²
- (c) Chromium-6 (hexavalent chromium) (2012-2016 list)
 - (i) Toxic and carcinogenic
 - 1. Study of 155 subjects exposed to chemical in drinking water in China showed sores on mouth, diarrhea, stomachaches, indigestions, vomiting, elevated white blood cell counts, and a higher per capita rate of cancers, including lung and stomach cancers, compared to controls.³
- (d) Manganese (2017-2021 list)⁴
 - 1. Studies have shown manganese can be toxic to humans via inhalation, but toxicity related to oral intake are unknown. Neurologic and psychiatric disorders observed in manganese miners.
 - 2. Limited studies on ingestion of high levels of manganese show similar neurological effects as observed by those who have inhaled manganese.⁵
- (e) Nitrobenzene (2001-2005 list)⁶
 - (i) Possible mutagen and reasonably anticipated to be a human carcinogen

¹ EPA, <https://www.epa.gov/dwucmr/third-unregulated-contaminant-monitoring-rule>

² International Chemical Safety Cards, joint undertaking by the International Labour Office and World Health Organization,

http://www.ilo.org/dyn/icsc/showcard.display?p_lang=en&p_card_id=0419&p_version=1

³ EPA human health assessment,

https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0144_summary.pdf

⁴ EPA, <https://www.epa.gov/sites/production/files/2016-12/documents/ucmr4-final-rule-prepublication.pdf>

⁵ EPA human health assessment,

https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0373_summary.pdf

⁶ EPA, <https://www.epa.gov/dwucmr/first-unregulated-contaminant-monitoring-rule>

- (ii) effects on the blood (i.e., methemoglobinemia).
- (iii) At low nitrobenzene concentrations, symptoms include fatigue, weakness, dyspnea, headache, and dizziness. At higher concentrations, depressed respiration, bluish-gray skin, disturbed vision, and coma may occur.
- (iv) Animal studies indicate that inhalation exposure results in reproductive effects, such as a decrease in fertility, reduced testicular weights, and decreased sperm production, have been noted.⁷
- (f) 2,4 – dinitrotoluene (2001-2005 list)
 - (i) confirmed animal carcinogen, but unconfirmed in humans. Vertigo, dizziness, weakness, fatigue, nausea, paralysis, unconsciousness, chest pain, shortness of breath, palpitation, anorexia, and loss of weight have all be reported in connection with exposure
 - (ii) causes changes in skin color, body weight, development of siezures, liver and kidney necrosis and lung cyanosis in aquatic species⁸
- (g) 2,6 – dinitrotoluene (2001-2005 list)
 - (i) confirmed animal carcinogen, but unconfirmed in humans. Vertigo, dizziness, weakness, fatigue, nausea, paralysis, unconsciousness, chest pain, shortness of breath, palpitation, anorexia, and loss of weight have all be reported in connection with exposure
 - (ii) causes changes in skin color, body weight, development of siezures, liver and kidney necrosis and lung cyanosis in aquatic species⁹
- (h) 2,4 – dichlorophenol (2001-2005 list)
 - (i) possible adverse reproductive effects; Inhalation may cause sore throat, cough, burning sensation behind the breastbone, shortness of breath, labored breathing
 - (ii) Absorption through skin may lead to redness, pain, and blisters. Contact with eyes may cause redness, pain, severe burns. Ingestion may burn mouth and through, cause abdominal pain, tremors, convulsions, shock or collapse.¹⁰
 - (iii) Substance is corrosive to the eyes, skin, and respiratory tract.
- (i) 2,4 – dinitrophenol (2001-2005 list)
 - (i) effects metoblism, can raise body temp and cause death
 - (ii) development of peripheral neuritis, life-threatening agranulocytosis, serious skin reactions, damage to nervous systems, birth defects
 - (iii) causes respiratory paralysis in fish¹¹

⁷ NIH, <https://pubchem.ncbi.nlm.nih.gov/compound/nitrobenzene#section=Top>

⁸ NIH, <https://toxnet.nlm.nih.gov/cgi-bin/sis/search2/f?./temp/~NFTf8r:1>

⁹ NIH and EPA, <https://toxnet.nlm.nih.gov/cgi-bin/sis/search2/f?./temp/~0NYObH:4>
https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=397

¹⁰ WHO and EPA, https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0041_summary.pdf;
http://www.ilo.org/dyn/icsc/showcard.display?p_lang=en&p_card_id=0438&p_version=1

¹¹ NIH and EPA, <https://toxnet.nlm.nih.gov/cgi-bin/sis/search2/f?./temp/~u1QjnX:1>;
https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=524

Testimony by Kathryn Klaber at PA DEP Public Hearing on air and water permits for Shell Chemical Appalachia Petrochemicals Complex in Potter Township, Beaver County

*Thursday, December 15, 2016
Central Valley High School
160 Baker Road Extension
Monaca, PA 15061*

Good evening. My name is Katie Klaber. I was born and raised here in Beaver County, was married at Park Presbyterian church in Beaver, and we raised our boys in Western PA. My comments this evening are made as a resident - I have not received any compensation to prepare or deliver them.

During my brief testimony, I will establish my credentials on the topics at hand, express my opinions about the state agency's permitting, and, reflect on what this industrial project means to our hometown.

Credentials

My undergraduate degree is in environmental science from Bucknell University and my MBA is from Carnegie Mellon. At Bucknell, I conducted a multi-year study of nutrient loading to the Chesapeake Bay, and at CMU I received the entrepreneurship award for my work on environmental metrics for corporations. Throughout my career, I have worked on numerous efforts to protect the environment with smart regulations and permit conditions that allow businesses to thrive. This was especially true when I led the Marcellus Shale Coalition in its early years. Notably, I also served on the Air Quality Technical Advisory Committee of the DEP for more than a decade, in both the Rendell and Corbett administrations.

State Agency Role

I have worked with many federal, state and local regulatory agencies throughout the last three decades, but none as frequently as the PADEP. With few exceptions, the staff at DEP's headquarters and regional offices are knowledgeable in the subject matter that we as taxpayers hire them to be, and they are true to their charge to be public servants, abiding by the rules and regulations they are responsible for implementing.

Water and Air Rules

In the case of the NPDES (National Pollutant Discharge Elimination System) permits, like the one under consideration this evening, DEP manages many of

these permits each week. I did a spot check of the NPDES permits published in last Saturday's weekly Pennsylvania Bulletin and found:

- 23 permit renewals
- 8 new or amended permits
- 17 industrial, sewage and related discharge permits
- 9 construction permits
- and a myriad of other nutrient management plans.

This type of activity is typical and ongoing for the DEP, and whereas Shell's plant is much larger than most others, the agency is more than capable of managing this process for us.

With respect to the air permit issue under consideration, specifically the use of Emission Reduction Credits (or ERCs), I am thrilled that the process is working as it was intended, and that these credits are being used. In my career, I have unfortunately been part of far too many closures of manufacturing plants in Pennsylvania. When that happens, ERCs are "banked" and available to be used for future economic growth, albeit in a way that allows for continued improvement of air quality. Now we finally have a chance here in western PA to use that process to support growth, and the DEP is administering the program as intended for NOx, VOCs and PM2.5 to protect our regional air quality. Yes, we lost Horseheads, power plants, and other industrial sources, but Shell can use the ERCs resulting from those closures.

In conclusion, I support DEP's intent to grant water and air permits to Shell Chemical that will allow for both environmental protection and economic growth. Our community stands ready to make the most of Shell's decision to build a world class plant in this region.

Thank you for your time in holding this hearing to gather community input for this important project.

Kathryn Klaber
335 Grant Street
Sewickley, PA 15143
412.749.6986

Testimony by Dave Smith, Outreach Coordinator

Clean Air Council

Before the Pennsylvania Department of Environmental Protection

Regarding Shell's Emissions Reduction Credits (ERC) Permit Conversion Application

Hello, my name is David Smith. Thank you very much for the opportunity to present testimony to you today. I am the Southwest Pennsylvania Community Outreach Coordinator for Clean Air Council, the largest Pennsylvania-based environmental nonprofit. The Council has been working to protect everyone's right to breathe clean air for nearly 50 years.

I want to thank the Pennsylvania Department of Environmental Protection (PA DEP) for having an open public hearing on Shell's Emissions Reduction Credits (ERC) Permit Conversion request. After a 10 hour meeting the other night in which many concerned residents had to leave before they were allowed to comment, the public is feeling more than ever like they have been shut out of the local decision-making process on Shell's cracker plant and that their voices have been muffled. It is paramount that the people who are going to be impacted by the Petrochemical Plant have opportunities to voice their concerns about the risks involved in having the plant located in Potter Township.

Shell and DEP should consider the potentially harmful effects to public health of avoiding real reductions in VOC emissions, which often contain hazardous air pollutants. Hazardous air pollutants from the ethane cracker include benzene, toluene, ethylbenzene, xylenes, hexane, formaldehyde, naphthalene, methanol, styrene, and acetaldehyde. These are harmful chemicals that can cause health impacts such as central nervous system effects, various blood disorders, and respiratory, cardiovascular, and kidney effects to name a few.

DEP and Shell should analyze the potential health impacts of creating a higher level of harmful pollution of VOCs in one location in exchange for addressing ground-level ozone, a regional air pollution issue. Typically, major air pollution sources like the cracker plant would be able to virtually reduce VOC emissions by purchasing VOC ERCs available in the same airshed. Substituting reductions in NOx for reductions in VOCs likely puts a higher public health burden on residents living downwind from the plant even though NOx is also an important ozone precursor.

While the Council acknowledges that DEP may believe that this exchange is technically legal, Shell has a much higher burden in terms of its social license to operate and the claim that the company will be a good neighbor. Shell should do everything technologically possible to reduce VOC emissions from the site, even if it is costly. Shell should be proactively talking with local industrial facilities to explore potential opportunities for generating additional VOC ERCs not already on the market in order to actually limit the amount of these harmful pollutants that are emitted locally. These actions are a requirement if Shell wants its social license to operate. Downwind residents deserve nothing less.

Thank you for your time.

Testimony provided by: James P. Fabisiak, Ph.D.
Associate Professor of Environmental & Occupational Health
University of Pittsburgh

I would first like to thank the PA-DEP for organizing this hearing and providing me the chance to speak. My name is Jim Fabisiak and I am an Associate Professor of Environmental & Occupational Health at the University of Pittsburgh. I would like to make comments specifically to the issues concerning the request by Shell for permission to exchange NOx emission reduction credits (ERCs) for VOC credits required to offset its proposed release of these 2 pollutants within an area designated in non-attainment for ozone.

First, it is important to consider what impact this decision would have on the market dynamics of ERC trading. What is the current value of NOx credits relative to a VOC credits in PA? One can imagine that NOx credits currently sell for substantially less than VOCs in a region seemingly replete with closed or curtailed coal-fired power plants where a surplus of NOx ERCs might exist. Might this request manipulate the market in such a way seeking to drive down the cost of VOC credits whose price is high based on low availability and high demand as the petrochemical sector advances on the area? This arrangement could ultimately render ERCs for VOCs worthless and in essence “de-incentivize” existing industries to take steps to reduce VOC emissions, which negates the rationale for ERC trading in the first place.

Second, what is the potential for this decision to set precedent on future transactions? If other “VOC-heavy” industries are allowed the same right to substitution, will there come a time when overall VOC emissions in the area are substantially higher than in the past or present. Based on the DEP’s own point source emission inventories for Beaver County, extrapolation of Shell’s proposed VOC emission from this single plant alone would raise VOC release in that county to levels not seen since 1999, completely eliminating what had been significant improvement over time. (see graph below).

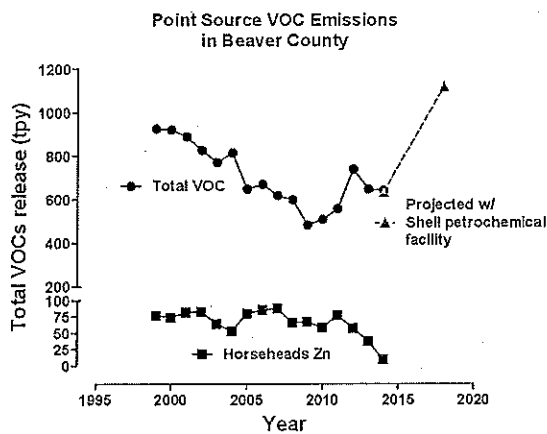


Figure 1: Historical VOC emissions from industrial point sources in Beaver County over time. Historical data represent totals from 22-25 facilities listed between 1999-2014. VOC release from the former Horseheads Zinc Smelter shown for comparison. Dashed line represents the addition of VOC release estimated by Shell in its air permit application. Source PA-DEP. http://www.ahs.dep.pa.gov/eFACTSWeb/criteria_emissionssummary.aspx

Third, while indeed ozone formation over the entire Southwest PA airshed is likely more affected by reducing man-made NOx, this may not be true at local levels close to pollution sources. Biogenic VOCs from vegetation become quantitatively more important as an air mass diffuses further and further from the release point. Under the right conditions, however, it is possible that high levels of man-made VOCs might substantially stimulate ozone formation in communities in close proximity to their release without impacting the region as a whole. I hope the PA-DEP and EPA are satisfied that any air modeling data

Testimony provided by: James P. Fabisiak, Ph.D.

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submitted with these applications sufficiently represents the ozone impacts at the community level, as well as regional level. For example, in its' request to exchange ERCs, Shell, in part, justifies its presumed impact on ozone by modeling incremental increases of NOx and VOCs as if they were coming from disperse mobile sources rather than a large single point source, which supports the impact on regional ozone levels but ignores potential effects at the community level.

Fourth, it is clear that as a class, VOCs represent a broad group of chemical compounds and some of those are known to be hazardous air pollutants (HAPs) of concern to people living near their release sites. While the ERC strategy is not designed to mitigate exposures to HAPs, would this decision result in an over-abundance of VOC releases over time and result in increased community-exposure to various HAPs contained in the VOC mixtures? Current regulatory strategies to control the multitude of air toxics using best-available control technologies from point sources do not necessarily take estimation of public health risk into consideration.