First name: Kari
Last name: Pohl

Good evening. My name is Sr. Kari Pohl and I'm a Sister of St. Joseph of Baden.

First of all, I'd like to thank you for this opportunity to speak tonight.

The past 2 evenings, I had the opportunity to attend the meetings in Potter Township during which Shell experts repeatedly testified that emissions from the proposed Shell cracker plant will not have odors. What they did not say was whether or not those emissions would be volatile or carcinogenic. The omission was glaring.

A 2011 Amnesty International press release comments on Shell's commitment (or not) to environmental concerns and to the rights of the local population surrounding a Shell investment in Nigeria, and I quote:

"The oil company Shell has had a disastrous impact on the human rights of the people living in the Niger Delta in Nigeria, said Amnesty International today, responding to a United Nations report on the effects of oil pollution in Ogoniland in the Delta region.

The report, from the United Nations Environment Programme found that oil contamination is widespread and severe, and that people in the Niger Delta have been exposed for decades.

It has destroyed livelihoods and food sources. One of the most serious facts to come to light is the scale of contamination of drinking water, which has exposed communities to serious health risks. In one case water was found to contain a known carcinogen at levels 900 times above World Health Organisation guidelines.

The report reveals Shell's systemic failure to address oil spills going back many years. The UN describes how sites that Shell claimed were cleaned up were found by UN experts to be still polluted.

This report proves Shell has had a terrible impact in Nigeria, and has gotten away with denying it for decades, falsely claiming they work to best international standards.

There is no solution to the oil pollution in Niger Delta as long as Shell continues to focus on protecting its corporate image at the expense of the truth, and at the expense of justice." (End quote)

The report's findings also expose the serious failure of the Nigerian government to regulate and control companies like Shell.

I would like to believe that our governmental entities would be more responsible in enacting and enforcing environmental protection laws, and yet, at the federal level, our president-elect is looking to appoint Scott Pruitt—a man who sued the Environmental Protection Agency over its regulations of power plants—as head of the EPA. The EPA & DEP regulations to which multiple Shell witnesses referred at the Potter Township meetings may not even exist in 5 years when this plant becomes operational.

Meanwhile, there's the October 19, 2016 report from the US Chemical Safety Board regarding the June 13, 2013, explosion and fire at the Williams Olefins Cracker Plant in Geismar, Louisiana, which killed two workers and injured 167. The report concludes "that process safety management program deficiencies at the Williams Geismar facility during the 12 years leading up to the incident allowed a type of heat exchanger called a 'reboiler' to be unprotected from overpressure, and ultimately rupture, causing the explosion".

The deficiencies had been going on for 12 years. Apparently, once petrochemical plants become operational in our country, deficiencies are tolerated to the point of becoming catastrophic. In my research, I could find no incidences in which a petrochemical plant was shut down over deficiencies.

In other words, unless this area suffers a catastrophe, there will be little chance of shutting down a plant that violates our environmental protection laws. It should also be noted that even after the 2013 explosion in Geismar, Louisiana, according to Willams' own website, the olefins plant in Geismar remains operational. So, even a catastrophe may not be enough to reverse this decision.

We in Beaver County certainly need good-paying jobs & we shouldn't be asked to sacrifice our air, water, and health in order to obtain those.

Thank you.

Sources
https://www.amnesty.org.uk/press-releases/shell-niger-delta-new-united-nations-report-confirms-massive-oil-pollution

Shell in Niger Delta: new United Nations report confirms massive oil pollution
04 Aug 2011, 12:00am

'This report should be a wake-up call to institutional investors' - Audrey Gaughran
The oil company Shell has had a disastrous impact on the human rights of the people living in the Niger Delta in Nigeria, said Amnesty International today, responding to a United Nations report on the effects of oil pollution in Ogoniland in the Delta region.

The report, from the United Nations Environment Programme, is the first of its kind in Nigeria and based on two years of in-depth scientific research. It found that oil contamination is widespread and severe, and that people in the Niger Delta have been exposed for decades.

The report, which was conducted at the request of the Nigerian government and paid for by Shell, provides irrefutable evidence of the devastating impact of oil pollution on people's lives in the Delta - one of Africa's most bio-diverse regions. It examines the damage to agriculture and fisheries, which has destroyed livelihoods and food sources.

One of the most serious facts to come to light is the scale of contamination of drinking water, which has exposed communities to serious health risks. In one case water was found to contain a known carcinogen at levels 900 times above World Health Organisation guidelines. UNEP has recommended emergency measures to alert communities to the danger.

The report reveals Shell's systemic failure to address oil spills going back many years. UNEP describes how sites that Shell claimed were cleaned up were found by UNEP experts to be still polluted.

Amnesty International Global Issues Director Audrey Gaughran, who has researched the human rights impacts of pollution in the Delta, said:

"This report proves Shell has had a terrible impact in Nigeria, but has got away with denying it for decades, falsely claiming they work to best international standards.

"Shell must put its hands up, and face the fact that it has to deal with the damage it has caused. Trying to hide behind the actions of others, when Shell is the most powerful actor on the scene, simply won't wash.

"There is no solution to the oil pollution in Niger Delta as long as Shell continues to focus on protecting its corporate image at the expense of the truth, and at the expense of justice".

The report's findings also expose the serious failure of the Nigerian government to regulate and control companies like Shell. UNEP found that Nigeria's regulators are weak and Nigeria's oil spill investigation agency is often totally reliant on the oil companies to do its work.

The Nigerian government, the oil companies, and the home governments of these companies, such as the UK and Netherlands, have all benefited from oil extraction in the Niger Delta and should now support a social and environmental rehabilitation process, said Amnesty.

Audrey Gaughran added:

"This report should also be a wake-up call to institutional investors. In the past they've allowed Shell's public relations machine to pull the wool over their eyes, but they will now want to see the company cleaning up its act in the Niger Delta - that means putting real pressure on Shell to avoid spillages, compensate those already affected and disclose more accurate information on their impacts."

The UN report notes that there are other, relatively new, sources of pollution in Ogoniland, such as illegal refining but it is clear that Shell's poor practice stretching back decades is a major factor in the contamination of Ogoniland.

Yesterday it was widely reported that Shell had accepted liability for two major spills in Ogoniland in 2008. The spills at Bodo, which severely damaged the livelihoods of the community, have still not been cleaned up almost three years later.

Background:
The oil industry in the Niger Delta started commercial production in 1958 following the discovery of crude oil at Oloibiri by Shell British Petroleum (now Royal Dutch Shell). Today, the oil industry is highly visible in the Niger Delta and has control over a large amount of land. Shell alone operates over 31,000 square kilometres.

The oil and gas sector represents 97% of Nigeria's foreign exchange revenues and contributes 79.5% of government revenues. Oil has generated an estimated £350 billion since the 1960s.

The oil industry in the Niger Delta comprises both the government of Nigeria and subsidiaries of multinational companies such as Shell, Eni, Chevron, Total and ExxonMobil, as well as some Nigerian companies.

According to the UN Development Program (UNDP), more than 60% of the people in the region depend on the natural environment for their livelihood.

UNDP says that more than 6,800 spills were recorded between 1976 and 2001, with a loss of approximately three million barrels of oil. Many experts believe that due to under-reporting the true figures may be far higher.

Under Nigerian regulations oil companies must clean up all oil spills. However these regulations are not enforced.

http://www.cnn.com/2016/12/07/politics/trump-picks-scott-pruitt-to-head-epa/index.html

(CNN)Oklahoma Attorney General Scott Pruitt is President-elect Donald Trump's choice for Environmental Protection Agency administrator, his former campaign manager told reporters Wednesday.

"Attorney General Pruitt has great qualifications and a good record as the AG of Oklahoma, and there were a number of qualified candidates for that particular position that the President-elect interviewed and he settled on Attorney General Pruitt and we'll look forward to the confirmation hearing," Kellyanne Conway told reporters Wednesday.

The move elevates a fierce EPA critic -- Pruitt had sued the agency over its regulations of power plants -- to the position of EPA administrator.

It's a signal the Trump administration is intent on reversing President Barack Obama's moves to curb climate change. In a statement Thursday morning from the Trump transition team making the nomination official, Pruitt was quoted as saying,

"The American people are tired of seeing billions of dollars drained from our economy due to unnecessary EPA regulations, and I intend to run this agency in a way that fosters both responsible protection of the environment and freedom for American businesses."

Who's in Trump's Cabinet?
Democrats and progressive groups quickly pledged to mount a fight against Pruitt's nomination.
Pruitt is a prominent denier of climate science, writing in the National Review in May that "the debate is far from settled" over whether human activity has contributed to the warming of the earth. In point of fact, the vast majority of climate scientists say climate change is real and humans contribute to it.

Incoming Senate Democratic leader Chuck Schumer of New York said Pruitt "will have to answer many tough questions" in the nominating process.
Schumer said Pruitt's "reluctance to accept the facts or science on climate change couldn't make him any more out of touch with the American people -- and with reality."

Reid on Trump's Cabinet picks: 'Quite frankly, scary'

Vermont Sen. Bernie Sanders tweeted that the decision to tap Pruitt is "sad and dangerous."
He tweeted Wednesday, "Trump's nominee to lead EPA, Scott Pruitt, is a climate denier who's worked closely with the fossil fuel industry. That's sad and dangerous."

http://www.csb.gov/csb-releases-final-case-study-into-2013-explosion-and-fire-at-williams-olefins-plant-in-geismar-louisiana/

CSB Releases Final Case Study into 2013 Explosion and Fire at Williams Olefins Plant in Geismar, Louisiana

October 19, 2016, Baton Rouge, LA -- Today the CSB released its final report into the June 13, 2013, explosion and fire at the Williams Olefins Plant in Geismar, Louisiana, which killed two employees. The report concludes that process safety management program deficiencies at the Williams Geismar facility during the 12 years leading to the incident allowed a type of heat exchanger called a "reboiler" to be unprotected from overpressure, and ultimately rupture, causing the explosion.

The Williams Geismar facility produces ethylene and propylene for the petrochemical industry and employs approximately 110 people. At the time of the incident, approximately 800 contractors worked at the plant on an expansion project aimed at increasing the production of ethylene.

The incident occurred during non-routine operational activities that introduced heat to the reboiler, which was offline and isolated from its pressure relief device. The heat increased the temperature of a liquid propane mixture confined within the reboiler, resulting in a dramatic pressure rise within the vessel. The reboiler shell catastrophically ruptured, causing a boiling liquid expanding vapor explosion (BLEVE) and fire, which killed two workers; 167 others reported injuries, the majority of which were contractors.

The CSB investigation revealed a poor process safety culture at the Williams Geismar facility, resulting in anumber of process safety management program weaknesses. These include deficiencies in implementing Management of Change (MOC), Pre-Startup Safety Review (PSSR), Process Hazard Analysis (PHA) programs, and procedure programs causal to the incident:
Failure to appropriately manage or effectively review two significant changes that introduced new hazards involving the reboiler that ruptured—(1) the installation of block valves that could isolate the reboiler from its protective pressure relief device and (2) the administrative controls Williams relied on to control the position (open or closed) of these block valves.

Failure to effectively complete a key hazard analysis recommendation intended to protect the reboiler that ultimately ruptured.

Failure to perform a hazard analysis and develop a procedure for the operations activities conducted on the day of the incident that could have addressed overpressure protection.
CSB Chairperson Vanessa Allen Sutherland said, "The tragic accident at Williams was preventable and therefore unacceptable. This report provides important safety lessons that we urge other companies to review and incorporate within their own facilities."
The CSB case study on the accident at Williams notes the importance of:

Using a risk-reduction strategy known as the "hierarchy of controls" to effectively evaluate and select safeguards to control process hazards. This strategy could have resulted in Williams choosing to install a pressure relief valve on the reboiler that ultimately ruptured instead of relying on a locked open block valve to provide an open path to pressure relief, which is less reliable due to the possibility of human implementation errors;

Establishing a strong organizational process safety culture. A weak process safety culture contributed to the performance and approval of a delayed MOC that did not identify a major overpressure hazard and an incomplete PSSR;

Developing robust process safety management programs, which could have helped to ensure PHA action items were implemented effectively; and

Ensuring continual vigilance in implementing process safety management programs to prevent major process safety incidents.

Following the incident, Williams implemented improvements in managing process safety at the Geismar facility. These include, among others, redesigning the reboilers to prevent isolation from their pressure relief valves, improving its management of change process to be more collaborative, and updating its process hazard analysis procedure.

Investigator Lauren Grim said, "Williams made positive safety management changes at the Geismar facility following the accident, but more should be done to improve process safety and strengthen the plant's process safety culture. Our report details important safety recommendations to protect workers at the Williams Geismar facility."

To prevent future incidents and further improve process safety at the Geismar plant, the CSB recommended that Williams strengthen existing safety management systems and adopt additional safety programs. These strategies include conducting safety culture assessments, developing a robust safety indicators tracking program, and conducting detailed process safety program assessments.

The CSB also identified gaps in a key industry standard by the American Petroleum Institute (API) and issued recommendations to API to strengthen its "Pressure-relieving and Depressuring Systems" requirements to help prevent future similar incidents industry-wide.
Chairperson Sutherland said, "Most of the accidents the CSB investigates could have been prevented had process safety culture been a top priority at the facility where the incident occurred. These changes must be encouraged from the top with managers implementing effective process safety management programs."

The CSB is an independent, non-regulatory federal agency charged with investigating serious chemical accidents. The agency's board members are appointed by the president and confirmed by the Senate. CSB investigations look into all aspects of chemical accidents, including physical causes such as equipment failure as well as inadequacies in regulations, industry standards, and safety management systems.

The Board does not issue citations or fines but does make safety recommendations to plants, industry organizations, labor groups, and regulatory agencies such as OSHA and EPA. Visit our website, www.csb.gov. For more information, contact Communications Manager Hillary Cohen, cell 202-446-8094 or email public@csb.gov.

http://co.williams.com/operations/ngl-petchem/olefins/

Williams' olefins business provides customers in the petrochemical industry a full suite of products and services. The Geismar, La. facility annually produces approximately 1.95 billion pounds of ethylene and 114 million pounds of polymer grade propylene. Also in Louisiana, the olefins team is responsible for the ethane transportation business consisting of approximately 200 miles of pipelines, as well as a refinery-grade propylene splitter.

December 13, 2016

Alan Binder, Environmental Engineer
Pennsylvania Department of Environmental Protection
400 Waterfront Drive
Pittsburgh, PA 15222

Re: Air Quality Plan: PA-04-00740A

Dear Mr. Binder,

On behalf of the Pennsylvania Chemical Industry Council, I am writing in support of Shell Chemical Appalachia LLC's modification to its Air Quality Plan Approval (PA-04-00740A) to incorporate emission reduction credits (ERCs) to comply with emission offsetting requirements as well as other modifications to the plan.

The changes do not include new or modified air contamination sources, emissions increases or regulatory requirements; therefore, I encourage the PA Department of Environmental Protection to approve the modifications without delay.

The final investment decision made by Shell to proceed with the construction of a multibillion-dollar petrochemical complex in Monaca, Beaver County, has provided hope for many communities in southwest Pennsylvania and opportunities for industries throughout the state -- including the chemical industry.

The chemical industry has a tremendous economic and employment impact in Pennsylvania. Totaling more than $22 billion in revenues, the chemical industry supports approximately 41,000 direct jobs and another 50,000 chemical-related and support jobs. The strength and resolve of the chemical industry will continue to grow with the addition of a world-class petrochemical complex in southwest Pennsylvania.

Shell's petrochemical complex will convert ethane into ethylene and, subsequently, up to 1.6 million tons per year of polyethylene, which is the key building block for the plastics manufacturing industry. Furthermore, the facility will leverage the abundant supply of ethane in the region that will yield a multibillion-dollar impact, create thousands of construction jobs and bolster the state's chemical and manufacturing base.

An ethane cracker provides the building blocks for the chemical industry's products, covering everything from lawn chairs and toothbrushes to food containers and auto parts. A complex of this magnitude will not just help supply the industry with cost-effective materials but encourage the chemical industry to consider Pennsylvania as a prime spot to expand or relocate.

As a distinguished and active member of the Pennsylvania Chemical Industry Council, Shell is committed to protecting the safety of the community and to being responsible stewards of the environment. We've already witnessed a tremendous transformation of what was destined to become another vacant western Pennsylvania brownfield site along the Ohio River. There is a new sense of optimism in the region that is breathing new life into local communities. An economic investment of this magnitude will be a catalyst for other businesses and open entirely new career fields for young people in the region.

The project will create an estimated 6,000 construction jobs and 600 permanent positions when it begins production early next decade.

This is a game changer for Shell, the chemical industry and Pennsylvania. It took a team effort for the project to reach this stage, and PCIC looks forward to supporting Shell and all of the activity that will follow in the years to come.

The chemical industry is proud to be a strong economic engine in Pennsylvania. However, to continue growing and providing family-sustaining jobs, we need projects such as the Shell Petrochemical complex in Beaver County to move forward.

The members of the Pennsylvania Chemical Industry Council encourage the PA Department of Environmental Protection to approve Shell's modification to its Air Quality Plan Approval without delay.

Sincerely,

Jeffrey Logan

Jeffrey Logan
President, PCIC

Mark T. Stanley
110 Aaronwoods Ct
Wheeling, WV 26003
412-370-8895
December 13, 2016

Pennsylvania Department of Environmental Protection
Attn: Environmental Engineer Manager, Alan Binder
400 Waterfront Drive
Pittsburgh, PA 15222-4745

RE: Department of Environmental Protection intends to modify Air Quality Plan Approval: PA-04-00740A to incorporate emission reduction credits ("ERCs") secured by Shell Chemical Appalachia LLC ("Shell") to comply with emission offsetting requirements. Shell has also requested approval for interprecursor trading between NO_x and VOC for the use of secured NO_x ERCs as ozone precursors to comply with VOC offsetting requirements.

Dear Pennsylvania Department of Environmental Protection
Attn: Environmental Engineer Manager, Alan Binder:

I am a long standing resident of the Ohio River Valley and work locally supporting industry and environment through solid engineering practice and environmental regulation. Based on my professional experience I am confident that the Pennsylvania Department of Environmental Protection is properly regulating this project through the Clean Air Act (CAA). I am in support of this project moving forward under the previously negotiated terms and proposed modifications of the Air Quality Plan Approval No. PA-04-00740A between the PADEP and Shell Chemical Appalachia LLC per the promulgated Clean Air Act being regulated by the PADEP.

Mark T. Stanley

Mark T. Stanley
110 Aaronwoods Ct
Wheeling, WV 26003
December 13, 2016

Pennsylvania Department of Environmental Protection
Clean Water Program
400 Waterfront Drive
Pittsburgh, PA 15222-4745

RE: NPDES Permit No. PA0002208 to Shell Chemical Appalachia LLC for the discharge of treated industrial wastewater and storm water from the Shell Chemical Appalachia Petrochemicals Complex located at 300 Frankfort Road, Monaca, PA 15601 to Poorhouse Run, Ohio River, Rag Run, and Unnamed Tributary to Ohio River located in Potter Township, Beaver County

Dear Pennsylvania Department of Environmental Protection:

I am a long standing resident of the Ohio River Valley and work locally supporting industry and environment through solid engineering practice and environmental regulation. Based on my professional experience I am confident that the Pennsylvania Department of Environmental Protection is properly regulating this project through the National Pollution Discharge Elimination System (NPDES). I am in support of this project moving forward under the previously negotiated terms of NPDES Permit No. PA0002208 between the PADEP and Shell Chemical Appalachia LLC per the promulgated NPDES program being regulated by the PADEP.

Mark T. Stanley

LAWRENCE COUNTY
ECONOMIC DEVELOPMENT CORPORATION
AT THE CENTER OF YOUR BUSINESS

December 14, 2016

Alan Binder
Environmental Engineer Manager
Department of Environmental Protection
400 Waterfront Dr
Pittsburgh PA 15222-4745

Re: **DEP intention to modify Air Quality Plan Approval: PA 04-00740A**
To incorporate emission reduction credits ("ERCs") secured by Shell Chemical Appalachia LLC ("Shell") to comply with emission offsetting requirements. Shell has also requested approval for interprecursor trading between NOx and VOC for the use of secured NOx ERCs as ozone precursors to comply with VOC offsetting requirements.

Dear Mr. Binder:

Lawrence County Economic Development Corporation (LCEDC) is a private, not-for-profit organization dedicated to enhancing the economy and quality of life in Lawrence County. Our county is adjacent to Beaver County which the location for Shell Appalachia's new petrochemical complex. County residents and businesses are looking forward to the opportunities this project will bring to the region.

The LCEDC is in support of Shell Chemical's project and the Board of Directors is confident that the Pennsylvania Department of Environmental Protection is properly regulating this project through the Clean Air Act (CAA). We are in support of this project moving forward under the previously negotiated terms and proposed modifications of the Air Quality Plan Approval No. PA-04-00740A between the PADEP and Shell Chemical Appalachia LLC per the promulgated Clean Air Act being regulated by the PADEP.

Very truly yours,

Linda D. Nitch
Executive Director

PLAZA SOUTH, SUITE 100
100 EAST REYNOLDS STREET
NEW CASTLE, PA 16101

LAWRENCE COUNTY
ECONOMIC DEVELOPMENT CORPORATION
AT THE CENTER OF YOUR BUSINESS

December 14, 2016

Alan Binder
Environmental Engineer Manager
Department of Environmental Protection
400 Waterfront Dr
Pittsburgh PA 15222-4745

Re: **NPDES Permit No. PA0002208 to Shell Chemical Appalachia LLC**
Discharge of treated industrial wastewater and storm water from the Shell Chemical Appalachia Petrochemicals Complex located at 300 Frankfort Road, Monaca, PA 15601 to Poorhouse Run, Ohio River, Rag Run, and Unnamed Tributary to Ohio River located in Potter Township, Beaver County

Dear Mr. Binder:

Lawrence County Economic Development Corporation (LCEDC) is a private, not-for-profit organization dedicated to enhancing the economy and quality of life in Lawrence County. Our county is adjacent to Beaver County which the location for the above noted petrochemical complex. County residents and businesses are looking forward to the opportunities this project will bring to the region.

The LCEDC is in support of Shell Chemical's project and the Board of Directors is confident that the Pennsylvania Department of Environmental Protection is properly regulating this project through the National Pollution Discharge Elimination System (NPDES). We are in support of this project moving forward under the previously negotiated terms of NPDES Permit No. PA0002208 between the PADEP and Shell Chemical Appalachia LLC per the promulgated NPDES program being regulated by the PADEP.

Very truly yours,

Linda D. Nitch
Executive Director

PLAZA SOUTH, SUITE 100
100 EAST REYNOLDS STREET
NEW CASTLE, PA 16101

December 15, 2016

TO: DEP - 400 WATERFRONT DR - PGH PA 15222

RE: Water Discharge Permit and Modifications to Shell's air quality plan for Shells' Ethane Cracker Plant

In Potter Township, PA

I am a very concerned citizen of Beaver, PA 15009. Concerned that Shell Chemicals is planning to build an Ethane Cracker Plant close to my home. The "carbon credits" that the company is trying to secure would allow them to emit carbon dioxide and other volatile organic compounds, or VOCs and 32 tons of HAP's annually! In addition, these credits would allow Shell to release a predetermined amount of PM 2.5!

Reject the permit modifications

I am urging the DEP to reject the emissions credit plan. If approved, Shell will emit 400 tons of nitrogen dioxide and nitric oxide, 620 tons of volatile organic compounds and 159 tons of PM 2.5.! This is UNACCEPTABLE! How can the ~~DEEP~~ DEP, in good conscience, approve such a plan.

In addition, discharges of industrial wastewater and storm water from the ethane cracker complex will run into the Ohio River, Poorhouse Run, and Rag Run. Who will be monitoring and enforcing the water emissions being poured into our "living" river?

Please reject Shell and it's poisons. I live here and will be breathing, smelling, tasting, seeing, and hearing that plant on a daily basis! Shell has the money to make it clean. They won't, unless we protest and demand clean air and water from them!

Sincerely,

Lani D. Fritz

Mrs. Lani Fritz

106 Magnolia Drive

Beaver PA 15009

Shell wants to build a massive industrial operation – one that has never been built in PA. The DEP is being asked to review and approve permits unlike any the SW Regional Office have ever seen. Although there remain many unanswered questions and missing pieces of information, there is steady pressure from elected officials, at all levels, to fast track each of Shell's approvals – **simply on the promise of jobs.**

Of course jobs are important – however no community should be forced to choose between jobs **OR** health. All communities **and** all workers deserve both.

According to the PA DEP's own fact sheet, "Even though Shell submitted an amendment application, the NPDES permit will authorize discharges from a completely new facility separate from the previous facility located at the site (the Horsehead Corporation Monaca Zinc Smelter Plant, which was demolished in 2014/2015)."

The Shell plant is "completely new" with new operations. Therefore, this plant should be subjected to much stricter pollution rules – rules with the purpose of protecting public health and drinking water sources. However, Shell is sneakily trying to avoid such protections by bending and, in some cases, breaking long standing rules – some dating back to the Nixon Administration and the inception of the Clean Water Act.

Rules that have long been on the books and well known by Shell must be enforced for the protection of all – particularly those living near the plant and those who rely on the Ohio River for their drinking water. Health protections must be the priority.

Shell is a very profitable company – they can certainly afford to protect health by adhering to existing laws. In fact, news reports on tax incentives for Shell indicate, "Over a 25-year window, the credit has been valued at $1.65 billion, making it the largest tax break in state history." So why is Shell trying to cut corners with regard to their regulatory obligations? This company has the money to protect health – so why aren't they willing to step up and follow ALL the rules – not ask for their own set of rules?

Let's be clear – if I were to open a trucking company and hired 600 workers I would not be exempted from obeying the posted speed limits, insurance requirements or any other long standing laws. **The promise of jobs has nothing to do with the issuance of permits.** Permits should be granted to only those operators who demonstrate full compliance with the laws. No exceptions should be made.

The draft NPDES permit must be denied and the PA DEP must require Shell to resubmit an application for a new facility – with all the legal requirements for compliance with all regulatory standards attached. This company should not be allowed to cherry pick data and use differing scenarios to benefit their bottom line. This is a new facility and should be treated as such.

Lisa Graves Marcucci
lgmarcucci@environmentalintegrity.org

CLEAN WATER ACTION

PENNSYLVANIA

Public Comment to Department of Environmental Protection 12-15-2016

First, I wanted to thank DEP for holding this hearing and listening to the voices of many concerned citizens who will feel the effects of the proposed cracker plant for generations to come. I truly hope that this is just the beginning of a series of public conversations that residents can have with the DEP over the next several years.

My name is Adam Tuznik, and I work with Clean Water Action, a non-profit organization that fights for strong public health protections, and has roughly 3000 members in Beaver County. These members, along with 400 individuals who signed this petition call on the DEP to do everything in its power to protect the health, safety, and environment of the residents of western Pennsylvania from the potential impacts associated with Shell's Ethane Cracker Plant.

I was shocked and disappointed to see the inadequacies of the draft NPDES permit, and respectfully request that you reject the application altogether, for several reasons.

First, the cracker plant is a brand new facility, completely different than the zinc smelting operation that formerly occupied this space, yet DEP is allowing Shell to amend the permit held by its predecessor rather than apply for a new permit that would hold Shell accountable to a standard that conforms to our current laws. Allowing an amended permit would essentially exempt Shell from DEP's laws limiting Total Dissolved Solids (TDS), which DEP describes as having "adverse effects on aquatic life, human health, and drinking water supplies." In face, allowing an amendment would welcome these discharges at a rate that is more than three times higher than standard that was created specifically to prevent the oil and gas industry from harming our waterways.

Additionally, the draft permit deletes limits and monitoring requirements related to existing pollution on the site. Shell must be accountable for all toxic chemicals entering our waterways from its property lines, regardless of who created said pollution. Because DEP failed to require cleanup of existing contamination at the site, the active monitoring and prevention of dangerous discharges must be ongoing and permanent.

Lastly, while DEP has defined limits for the concentration of pollutants in the wastewater that Shell plans to discharge, it has not defined a maximum amount of wastewater that can be discharged, providing Shell with an unlimited license to pollute.

It is the duty of the DEP to prioritize health and safety and provide an appropriate level of scrutiny and diligence to the review of Shell's NPDES permits. I am not convinced that this has been done and must object to the permit as it is currently drafted. Please insist that Shell make these corrections in any future applications.

Sincerely,

Adam Tuznik

Adam Tuznik
Clean Water Action

100 Fifth Ave. Ste. 1108 | Pittsburgh PA 15222
Phone: 412-765-3053 x.202 | Email: atuznik@cleanwater.org
www.cleanwateraction.org/pa

PAChamber™ of Business and Industry

417 Walnut Street
Harrisburg, PA 17101
717 255-3252 / 800 225-7224
FAX 717 255-3298
www.pachamber.org

Susan Malone
Regional Director, DEP Southwest Regional Office
Pennsylvania Department of Environmental Protection
400 Waterfront Drive
Pittsburgh, PA 15222

Dec. 15, 2016

RE: Shell Chemical Appalachia LLC's Amendment to NPDES Permit No. PA0002208 & Modification to Air Quality Plan Approval No. 04-00740A

Ms. Malone,

On behalf of the Pennsylvania Chamber of Business and Industry (the PA Chamber), the largest, broad-based business advocacy association in the Commonwealth, I am writing in support of Shell Chemical Appalachia LLC's amendment to NPDES Permit No. PA0002208 and a proposed modification to the same company's Air Quality Plan Approval No. 04-00740A. Both of these authorizations are necessary for the continued progress of the company's petrochemical complex, the construction and operation of which will be of great significance to advancing the state and regional economy. The application materials for both authorizations make clear Shell has continued to show leadership in its commitment to meeting or exceeding all relevant environmental criteria. The permit conditions are sufficient to protect the state air, water and public health, and I urge you to grant approval for both the NPDES permit and the modification to the Plan Approval.

The construction of this facility is expected to support 6,000 jobs during construction; its on-going operations will create another 600 jobs. Further, the operation of the petrochemical complex will support continued development of Pennsylvania and neighboring states' shale gas resources, as well as the continued success of associated businesses along the supply chain. It is also possible that the construction of this facility will attract additional manufacturing facilities to the region due to the resulting affordable supply of petrochemical products.

The businesses and industries writ large in Pennsylvania continue to remain committed to the stewardship of our state's natural resources, which includes compliance with, among other requirements, the state's Clean Streams Law and its various association regulations, such as those requirements that deal with the management of stormwater and erosion and sediment control. The conditions outlined in the NPDES permit demonstrate more than sufficient compliance with these regulations. These conditions include the use of control technologies to avoid impacts to surface and groundwater during construction and operation, as well as appropriate management of stormwater, continual monitoring of groundwater and assistance in funding the Center Township Water Authority's new water treatment facility. I encourage your staff to grant authorization NPDES coverage for this facility's construction and operation by granting this permit.

Regarding the Plan Approval, businesses and industry in Pennsylvania have, through the continued compliance with state and federal air quality programs, helped in securing significant and documented reductions of all criteria pollutants over the past decade. Pennsylvania's placement into the Ozone Transport Region by statute has historically been a challenge to the state's ability to attract new manufacturing and industrial facilities, given the associated permitting requirements under New Source Review for such facilities. Therefore it is extremely noteworthy that a facility of this size is being proposed in Pennsylvania. It is also wholly appropriate and consistent with relevant state and federal law for this facility to be compliant in part by the use of Emission Reduction Credits. The Plan Approval makes clear that the construction and operation of this facility will not

adversely impact the region or state's ability to attain and maintain compliance with National Ambient Air Quality Standards, nor adversely impact public health. For these reasons, I also encourage your staff to approve the modification to the facility's Air Quality Plan Approval.

Sincerely,

Kevin Sunday
Director, Government Affairs
Pennsylvania Chamber of Business and Industry

Hello, my name is Michael DiLauro. I'm a resident of Beaver and a member of the Cracker Plant Initiative. I'm here tonight to voice my concerns regarding industrial wastewater discharge permit.

Shell has submitted an amended application, not a new application for its water discharge permit. This is disturbing to me and it should be a concern for the DEP and the citizens of our region.

Shell is essentially requesting to be grandfathered in with this amended permit that was initially permitted by the zinc facility that existed at the same site for many years.

Shells petrochemical facility is a new facility and the air and water requirements should represent current standards not ones that were established years ago to an entirely different production operation that existed on the site.

The Shell Petrochemical Plant has different air and water pollutants than the old zinc facility. Why would the DEP grant an amended water discharge permit to Shell that has different pollutants and different limits on discharges? This is like mixing apples and oranges.

I strongly suggest that Shell needs to submit a new application to the DEP because it is a new facility period. It is in the best interest for our community and the DEP.

Michael DiLauro
140 Wilson Ave.
Beaver PA 15009

Testimony at December 15, 2016 DEP Hearing for the Shell Cracker Plant's Air Permit

My name is Angelo Taranto and I am a member of Allegheny County Clean Air Now (ACCAN), a group that advocates for better air quality in Allegheny County, particularly in communities downwind from industries on Neville Island. I am here to testify about Emission Reduction Credits (ERCs) in the Shell Cracker air permit that DEP is now reviewing. I came to testify because the proposed Cracker Plant would impact the air quality of the entire region. I also came to support the Beaver County residents opposing this plant. I know what it means to live in an area whose air is polluted by industry and I know how ineffective government agencies are in regulating industries that pollute.

Let's call ERCs what they really are - pollution credits. The ERC program, simply put, allows companies who shut down polluting operations, to sell pollution credits to some new source of pollution. In this transfer, there technically is some small reduction in pollution in the region, but the bottom line is that the program allows a new pollution source, in this case the Cracker Plant, to operate in this community. We breathe where we live and the average adult breathes over 3,000 gallons of air per day. Children inhale more air than do adults, relative to body surface area, breathing frequency, and heart rate. Regional improvements in air quality don't help, if the ERC program allows a new pollution source to locate in or near our community, where we breathe.

Let's look at how the ERC program is working for the Cracker Plant. Shell is buying credits from a company, let's call this company X, which shut down a polluting plant in another community in the region. Let's call that other community, community A. The people in community A have gotten the benefit of better air quality after the shutdown of company X.

So let's look at the Beaver County communities whose air quality is going to be degraded by the Cracker Plant. Those communities may not have great air quality now, but it will get significantly worse because Shell can buy pollution credits from company X. Those credits will allow them to build the Cracker Plant that will emit the pollution that company X was emitting in Community A. That is not improving your air quality. It is making it worse than it is now and it is creating winners and losers. Community A is the winner and the Beaver County communities are the losers.

The ERC program may work for polluters, but it is not working for us. It is not protecting our health. It is time for the State to dismantle it and regulate industries in a way that will improve our air quality and keep it clean.

In terms of monitoring, DEP should also require Shell to fund a robust system of real-time and longer-term monitoring of air quality at fencelines and in the community. The community should be involved in the design and oversight of this system and Shell should provide funding for the community to hire their own technical experts to assist them.

Angelo Taranto
11000 Park Plaza Drive, Apt. 11302
Ross Township, PA 15229

Celia M Janosik
305 Hoenig Rd
Sewickley PA 15143-9674
Economy Borough, Beaver County
724-266-6741

DEP Shell hearing December 15, 2016

Thank you for allowing me to speak this evening. My name is Celia Janosik etc. I come here as a mother, grandmother and a woman. I enjoy science but I do not come as an expert only as a passionate human being.

Shell is a questionable "good neighbor", ask the Igoni people of Nigeria who's government worked with Shell, to take by force, the land of the Igoni so as to drill for oil thereby destroying their agricultural life and making many refugees who still have no homes. Shell has paid out 16.5 million for the devastation. The Niger delta is highly polluted and 9 Igoni were killed for protecting their land.

Shell needs to have fence line monitoring, as has been done at other facilities, to track any major release so that the residents and workers know to take shelter. The existing air monitors are too far away from the plant to raise an alarm.

So Shell wants to lessen their NOx credits in favor of an increase in VOC's stating it would lessen low lying ozone. Now Shell owns up to creating low lying ozone. VOC;'s are heavy and flow into the valleys of which we have many. Include the VOC's from all the fracking wells, cryogenic plants and compressor stations, what is the accumulative affect??? In several years time we will have additional industries along with the acute possibility of 3 more ethane cracker plants in the region with the same polluting properties that add to the accumulative affect.

The trouble with the accumulative affect is there are no regulations. Each plant will have its own limits with the DEP and no consideration of all the other polluting enterprises. On the other hand, we the people will have to live with the accumulative affects 24/7 and the children, the sick will be the unfortunate ones while huge profits will be made at their expense.

Thank you Shell for the mailer, I wished our organizations could afford to send out mailers region wide and TV adds ad nauseam.. You are taking us into the 21st Century, really? I believe the use of fossil fuels is dragging us back into the beginning of the 20th Century. I would be interested to know how close the families involved with Shell will live to the cracker plant and all fossil fuel drilling activities. I will have two well pads on my road, one just over a mile and the other less than ½ mile owned by Penn Energy a supplier to the Shell Cracker Plant. My family has skin in the game with our health, property values and our well water. But we will not lease.

All you politicians had to give Shell 1.6 billion dollars to pollute our air and water so that the people of this region had jobs. We do not care to have a chemical cancer alley such as Louisiana and parts of Texas have today. Shame on you.

I love Pittsburgh but it will no longer be the most livable city as it will need clean air & water and also a Planet to survive in.

CLIMATE CHANGE everybody?????

December 15, 2016

My name is Patrice Tomcik and I am a Field Organizer with Moms Clean Air Force. We are a community of parents/grandparents and anyone who cares about children fighting for the health of our children. Children need special protections from air, water, light, and noise pollution because they are much more vulnerable than adults since they are still developing. In fact children's lungs and brains are still developing after birth until their early twentys.

The Shell Ethane cracker plant will be a major source of air pollution for the local communities and the region and will be the largest emitter of Volatile Organic Compounds (VOC) in Southwestern PA. Many of the VOCs emitted by the ethane cracker are harmful to human health by themselves such as benzene which is a potent neurotoxin and can cause childhood leukemia. My son was diagnosed with leukemia at age 3 and I fight to protect all children from known cancer triggers. In addition, many of the VOCs that would be emitted by the ethane cracker plant can contribute to form ground level ozone or smog which can irritate airways, exacerbate asthma, and damage developing little lungs.

I am very concerned for the children who live, play, go to school in Beaver County. Some of the schools that will be most impacted by air pollution from the Shell Ethane Cracker plant are Central Valley School District (2,500), Beaver Area School District (2,075), and Rochester Area School District (825) which adds up to a total of 5,400 children who will be playing on playgrounds in warmer months and be exposed to all the air pollutants. For the safety of the children, Shell needs to install real-time fenceline monitoring with community web based access to measure all hazardous air pollutants around the plant and place monitors on all playgrounds in Beaver County. I have a concern not only for what may escape from the plant at the ground level but also what may come down from stacks and flaring on children who are playing innocently on school playgrounds.

Shell needs to reduce the amount of VOC emissions that could come from the plant and not purchase credits or substitute the use of NOx credits in place of VOC credits.

In regards to the water discharge permit application, I find it very dishonest that the Shell Cracker Plant is claiming to be an existing facility because it is clearly a **new** facility with completely different wastewaters than the former zinc smelter which is now demolished. DEP must reject Shell's water discharge permit application and require Shell to submit a new application so Shell will adhere to the stronger pollution limits.

Shell needs to learn how to be a good neighbor and know that Southwestern PA communities are very passionate about protecting their children. There should never have to be a choice between jobs and children's health because that is just not fair to put communities in that situation. We are educated communities and will be watching you very closely and expect that you will be the "good neighbor" that you claim to be.

Thank you,

Patrice Tomcik
211 Chesapeake Dr
Gibsonia, PA 15044
Phone: 412-999-2360

Pittsburgh Regional Alliance

An affiliate of the Allegheny Conference

Patty Horvatich
Vice President, Business Investment
Pittsburgh Regional Alliance
Testimony in Support of Shell Chemical's Air Quality Modification Plan and NPDES Amendment
Public Hearing - Thursday, Dec. 15, 2016

Good evening. My name is Patty Horvatich, and I'm the vice president of business investment at the Pittsburgh Regional Alliance, the economic development marketing organization for the 10-county Pittsburgh region. I appreciate the opportunity to testify in support of the air quality modification plan and the NPDES Amendment related to Shell's Pennsylvania Chemicals manufacturing facility in Potter Township, Pa.

I come before you tonight as a local business professional with 20 years' experience in economic development. Over the years, I've worked with literally hundreds of companies interested in establishing or expanding their presence in the region. Because strategic business investment is critical to our economic vitality – including job creation – I make such engagement and relationship-building top priorities. My work sees me not only presenting the advantages and assets of the region to companies interested in investing here, but also giving consideration to which companies will be a good fit – and a good neighbor.

Given my years of experience, I can say – with conviction – that not many companies compare with Shell Chemical, notably when it comes to the most stringent safety standards. I'm talking about safety in every sense: of the people on sites, the built and natural environments' safety and community safety.

I can attest to these standards based on knowing and working with Shell for nearly six years. Our relationship began in June 2011 when we started to explore the construction of a multibillion dollar, facility in Beaver County, which would stand to benefit the three-state greater Pittsburgh region.

Over those six years, I have not only heard Shell 'talk the talk.' I have personally seen and experienced how Shell 'walks its talk'. The company has demonstrated to me on numerous occasions that it does what it says and that it consistently operates with integrity.

Let me share some brief, but meaningful, examples. Shell opened its doors to me and a group of colleagues for visits to its Gulf Coast facilities: Norco and Geismar in 2012 and Deer Park in 2015. These were in-depth tours to better understand exactly how a chemicals manufacturing facility looks, smells, sounds and operates in the real world.

We not only saw these plants, from the inside and outside, but we heard from employees, as well as from leaders where these facilities are located – about what Shell has meant to the local economy and its integration into the community. I came away from those visits with a certain confidence that Shell is not in the business of designing, building and operating facilities that would knowingly put the company – or the communities in which it operates – in harm's way. I personally believe that is not the Shell way.

Most recently, on November 14th, I had the privilege – alongside Pennsylvania Governor Tom Wolf and other elected officials – to be in the first group of individuals from outside of Shell to see its Potter Township site up close. We toured by bus many of the 1,200 assembled acres where Shell continues its monumental efforts for the construction of its Pennsylvania Chemicals manufacturing facility.

On that tour, Shell's concern for protecting a natural resource, such as our Ohio River, was affirmed. I saw two significant water retention ponds with polyethylene pull-up liners in place to collect water runoff, which could include contaminants from the former Horsehead operation, and to treat that water to the highest standards before discharge into the river. And that doesn't even consider the nearly $70 million that Shell has invested in a new drinking water intake and treatment plant that will ensure that Center Township residents and businesses have quality tap water. Shell's actions will safeguard a vital source of supply, such as the Ohio River, from direct or indirect compromise.

As to air quality, which is as critical as water quality, Shell has demonstrated – via extensive modeling – to the Pennsylvania Department of Environmental Protection that emissions from the petrochemical facility will not prevent or adversely affect the area from reaching attainment status for air quality standards. This was a condition for receiving from the DEP the Plan Approval Permit – or air permit approval, as it has been called – that allows Shell to move forward with construction. A Shell spokesman is on record saying that the company is agreeable to fence-line monitoring for gasses or contaminants from the plant. That's in addition to comprehensive continuous emission monitoring and leak detection at the plant *plus* four air monitors – installed by DEP – in close proximity to the plant.

In the end, we balance Shell's stringent plans for safety – including environmental safety, which it has publically articulated – with surveillance provided by the U.S. EPA and Pennsylvania DEP. It is these agencies' jobs to determine what is, or is not, acceptable in the environmental realm. These agencies are not going to approve any actions that are non-compliant or that would jeopardize our air and water.

In this instance, government oversight is a very good thing, as is having a global company like Shell Chemical eager to invest here and make Beaver County and our greater region better than it was found – environmentally and economically.

That concludes my testimony. Thank you for the opportunity.

Associated Petroleum Industries of **Pennsylvania**
A Division of the American Petroleum Institute

Stephanie C. Wissman
Executive Director

TESTIMONY OF STEPHANIE C. WISSMAN

EXECUTIVE DIRECTOR

ASSOCIATED PETROLEUM INDUSTRIES OF PENNSYLVANIA

DEP PUBLIC HEARING ON MODIFICATION OF AIR QUALITY PLAN APPROVAL AND NPDES PERMIT APPROVAL

Air Quality Plan Approval: PA-04-00740A; NPDES Permit No. PA0002208

TO SHELL CHEMICAL APPALACHIA LLC

DECEMBER 15, 2016

CENTRAL VALLEY HIGH SCHOOL

MONACA, PA

Good evening. I am Stephanie Catarino Wissman, Executive Director, Associated Petroleum Industries of Pennsylvania (API-PA), a division of the American Petroleum Institute (API). I am here tonight to express support for Shell's application for an NPDES permit and modification of the air quality plan for the petrochemicals complex.

API is the only national trade association representing all facets of the oil and natural gas industry, which supports 9.8 million U.S. jobs and 8 percent of the U.S. economy. API's more than 625 members include large integrated companies, as well as exploration and production, refining, marketing, pipeline, and marine businesses, and service and supply firms. They provide most of the nation's energy and are backed by a growing grassroots movement of more than 30 million Americans.

API is also a standard setting organization. For 90 years, API has led the development of petroleum and petrochemical equipment and operating standards. These standards represent the industry's collective wisdom on everything from drill bits to environmental protection and embrace proven, sound, engineering and operating practices and safe, interchangeable

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An equal opportunity employer

equipment and materials for delivery of this important resource to our nation. API maintains more than 650 standards and recommended practices (RPs). Many of these are incorporated into state and federal regulations; and increasingly, they're being adopted by the International Organization for Standardization.

Today, the U.S. leads the world in the production and refining of oil and natural gas. This has resulted in positive benefits for American consumers by driving energy costs down and has also benefited our environment. In fact, clean-burning natural gas has driven carbon emissions from power generation to their lowest levels in more than 20 years.

Natural gas consumption in Pennsylvania has increased 86 percent between 2005 and 2015 and this increased use of natural gas is generating significant economic benefits for the state, including lower costs for consumers and manufacturers. Shell's petrochemical complex will use low-cost ethane from shale gas producers in the Marcellus and Utica basins to produce 1.6 million tons of polyethylene per year. The project is expected to add 6,000 construction jobs, 600 permanent jobs, and according to Governor Wolf, incite a "regional renaissance in manufacturing, one that could revolutionize the local economy for decades."

API-PA reiterates its support for Shell's petrochemicals complex. Projects such as this one benefit the broader industry by giving producers a local market for their product. The further use of Pennsylvania natural gas is necessary for greater job creation, additional economic activity and eventually more revenue for the Commonwealth. It is important for projects like these to be approved by the State as it adds to the industry's value chain.

Thank you for the opportunity to testify in support of this project.

DEP Hearing – December 15, 2016
Rebecca Matsco, Chairwoman, Potter Township Board of Supervisors

On behalf of the residents and Board of Supervisors in Potter Township, Beaver County, I want to thank you for this opportunity to address the Department and to recognize that, with its application for Emission Reduction Credits and a water discharge permit, Shell Chemicals Appalachia is fulfilling requirements of our township's Conditional Use permitting process. The DEP must consider these permit applications as part of policy and regulations developed within a democratic process—the collaboration of government, academia, industry and environmental advocacy – and we request that you honor and contribute to that process.

Several months ago, we publicly charged you with protecting air and water that could be impacted by a proposed petro-chemical facility in Potter Township, where we have no authority to do so. Tonight, we again advocate for the health, safety and welfare of our community and those surrounding us by urging you make fullest and highest use of your jurisdiction and responsibility in these matters.

Potter Township is a rural industrial community: which describes our place, has formed our people, and has been the basis of much of our pride. But "industry" is a dynamic term. Our neighborhood will no longer be accustomed to smoke stacks, loud machinery and glaring floodlights. Instead, it is already characterized by whispering steam, humming motors and high-efficiency LEDs. Even as the manufacturing of our past is replaced by state-of-the-art facilities, applying Emission Reduction Credits at a given point in time to an emerging industry, causes continuously diminishing emissions across the Beaver Valley and beyond.

It is this dynamic context which informs your charge in the current permitting process: as technologies and science progress, whether influenced by crisis, public opinion or the sheer possibilities of human ingenuity – we ask the Department of Environmental Protection and the federal EPA policies it implements to make our region ever cleaner, safer and healthier through programs like the Emission Reduction Credits. Thank you for coming alongside Potter Township with education and information, policy and power, to make us a better place to be.

1070 High Meadows Drive
Gibsonia PA 15044

Shell Chemical Appalachia LLC
Air Quality Plan Approval (PA-04-00740A)
Testimony: Matt Crocco on behalf of PCIC

My name is Matt Crocco, and I serve as spokesperson for the Pennsylvania Chemical Industry Council. On behalf of PCIC, I'm here to support Shell Chemical Appalachia LLC's modification to its Air Quality Plan Approval (PA-04-00740A). The updated plan incorporates emission reduction credits commonly known as "ERCs" to comply with emission offsetting requirements as well as other modifications to the plan.

The changes do not include new or modified air contamination sources, emission increase or regulatory requirements; therefore I encourage the PA Department of Environmental Protection to approve the modifications without delay.

The final investment decision made by Shell to proceed with the construction of a multi-billion petrochemical complex in Monaca, Beaver County has provided hope for many communities in southwest Pennsylvania and opportunities for many industries throughout the state -- including the chemical industry.

The chemical industry already has a tremendous economic and employment impact in Pennsylvania. Totaling more than $22 billion in revenues, the chemical industry supports approximately 41,000 direct jobs and another 50,000 chemical-related and support jobs. The strength and resolve of the chemical industry will continue to grow with the addition of a world-class petrochemical complex in southwest Pennsylvania.

Shell's petrochemical complex will convert ethane into ethylene and subsequently, up to 1.6 million tons of polyethylene per year, which is the key building block for the plastics manufacturing industry. Furthermore, the facility will leverage the abundant supply of ethane in the region that will yield a multi-billion investment in the region, the creation of thousands of construction jobs, and bolster the state's chemical and manufacturing base.

An ethane cracker provides the building blocks for the chemical industry's products, covering everything from lawn chairs and toothbrushes to food containers and auto parts. A complex of this magnitude will not just help supply the industry with cost-effective materials but will encourage the chemical industry to consider Pennsylvania as a premium location to expand or relocate.

As a distinguished and active member of the Pennsylvania Chemical Industry Council, Shell is committed to protecting the safety of the community and to being responsible stewards of the environment.

We've already witnessed a tremendous transformation of what was destined to become another vacant western Pennsylvania Brownfields site along the Ohio River. Without Shell, the legacy of decades of zinc smelting operations would have been just another environmental liability in this

region. Instead, site development completed by Shell and its contractors have laid the groundwork for economic prosperity and employment growth.

I am a native of western Pennsylvania. Growing up in Johnstown, I've witnessed the devastating effects of industry decline. In my hometown there's been an unsettling trend of deteriorating housing, property value decline, increased crime, and lower performing schools. Projects like this give me hope that working class towns can be brought back from the brink of ruin. Thankfully, I am still able to call myself a western Pennsylvanian. I along with my family reside in Gibsonia - less than 20 miles from the project. I would like to see this facility built both from a professional and private citizen point of view.

There is a new sense of optimism in the region that is breathing new life into local communities. An economic investment of this magnitude will be a catalyst for other new businesses and open entirely new career fields for young people in the region.

The project alone will create an estimated 6,000 construction jobs and 600 permanent positions once it begins production early next decade. This does not take into account the thousands of spin off jobs that will be created by businesses that will greatly benefit from the addition of a petrochemical facility in the region.

This is a game changer for Shell, the chemical industry and all of Pennsylvania. The chemical industry is proud to be a strong economic engine in Pennsylvania. However, in order to continue growing and providing family-sustaining jobs we need projects like the Shell Petrochemical complex in Beaver County to move forward.

The members of the Pennsylvania Chemical Industry Council encourage the PA Department of Environmental Protection to approve Shell's modification to its Air Quality Plan Approval without delay.

Statement in support of NPDES Permit Modification and Plan Approval Air Permit Modification:

I would like to thank the Pennsylvania Department of Environmental Protection (DEP) for the opportunity to provide this testimony in support of the issuance of the NPDES permit modification and plan approval modification for the air permit to Shell Chemical Appalachia, LLC. I'm speaking to you this evening as a member of the Pennsylvania Independent Oil and Gas Association (PIOGA) and an employee of Civil & Environmental Consultants, a company founded and headquartered in Pittsburgh.

We appreciate the time and effort expended by both Shell and DEP in developing the draft NPDES permit, and encourage DEP to issue the final permit promptly and in accordance with their administrative requirements.

The plan approval modification for the air permit will result in an overall improvement to the area's air quality. VOCs and nitrogen oxides (NOx) are ozone precursors – they react together in the atmosphere to form ground-level ozone. In some areas, including the Pittsburgh-Beaver Valley air shed (the air we're breathing right now), this ozone-forming reaction is limited by the availability of NOx. What this means is that an increase in VOC emissions will have a lesser impact on ground-level ozone formation, and that reducing emissions of NOx is more important to improving local air quality. Air quality laws and regulations allow companies to trade between VOCs and NOx if it can be demonstrated that local air quality improvements will be equivalent to, or better than, the scenario where this trading had not occurred. Shell has demonstrated this is the case, and DEP and U.S. EPA have agreed. We support this interprecursor trading and encourage DEP to issue the final permit in accordance with their administrative procedures.

Thank you for your thoughtful attention.

—Submit—

Thank you for the opportunity to speak. I deeply appreciate the complexity of this project, and the work the DEP and many other organizations and individuals are putting forth.

Regarding water permitting, I understand there are different water pollution limits for new versus existing facilities. I understand Shell has filed as an existing facility for less stringent pollution limits, AND cites itself as a new facility which allows them to bypass submission of certain information.

I understand there are legal limits to discharge Total Dissolved Solids, and that Shell is asking for treatment as an existing facility to meet less requirements. I also understand Shell has claimed that the discharges to the Ohio River will be double or triple the healthy human and environment levels.

I understand there is still contamination from the zinc smelter, and that the DEP did not require clean-up of the existing contamination at the site.

These inconsistencies, strategies, maybe illegalities, by both Shell and the DEP, cause me to doubt that regulations are being met, and that our local waters, for humans and wildlife, are safe.

The DEP's mission is to protect air, land and water from contamination. Shell talks about our waterways, our activities, in their recently distributed postcard. No company has the right to say OUR anything until that right of belonging in the community has been earned. The inconsistencies I'm hearing about certainly violate missions. I'm not a lawyer to comment on legalities, but there are many present who can and are.

About monitoring, I understand once the facility is built, the monitoring of water pollution is decreased. This is unconscionable. I'm reminded of DEP's mission to protect.

Shell describes all the steps they have taken to protect the water, OUR water, yet here we are in lengthy negotiations to assure water and air safety. If profitability is the driver for Shell's process, I believe that is, at the least, incongruent for sustainable environmental development in Beaver County (postcard).

I'm relying upon the DEP to hold Shell accountable – to subject Shell to limits for new dischargers; reject Shell's proposal for no limits on Total Dissolved Solids, and subject Shell to long term monitoring.

I'm willing to help – I have been monitoring local streams since fracking increased in Beaver County. There are many others here tonight that are also. We citizens are taking up on the responsibility that Shell should have. That will need to change if Shell wants the right to say OUR community.

I am requesting DEP to deny NPDES permit as submitted. JSM

Joanne Martin – 243 Cordak Dr. Darlington PA 16115 joanne@eastvisionpartners.com

PA DEP Hearing on Shell Cracker Plant, Monaca, PA - Dec. 15, 2016

Statement delivered by Marcia Lehman, 998 Mayfield Avenue, Ambridge PA 15003

As a recently retired home health nurse this year and having practiced in Beaver County, I have studied and attended many conferences on 'Oil & Gas Operations & Impacts on Public Health and the Environment'. I am well aware of the adverse health impacts of Hazardous Air Pollutants (HAPs), Particulate Matter (PM_{10} & $PM_{2.5}$) and Volatile Organic Compounds (VOCs), etc. These pollutants have a direct impact on those with compromised immune systems, those with conditions such as asthma, bronchitis, COPD, emphysema, heart conditions, etc. and on the very young and very old. Shell says they will be releasing 30.5 tons of Hazardous Air Pollutants, 164 tons of large PM_{10} and 159 tons of $PM_{2.5}$. These Hazardous Air Pollutants also include very dangerous levels of Volatile Organic Compounds (VOCs) that can seriously affect those in a close perimeter of the plant as well as many miles downwind. This especially applies to Benzene, which causes the blood cancer, leukemia. Acute leukemia has a very poor prognosis for treatment in adults and is generally fatal in 6-12 months or less. Have you ever thought..."Is this the sort of environment we want our children and grandchildren to be exposed to in the air and water"? Absolutely not!!

In terms of us, living with these dangerous Hazardous Air Pollutants, VOCs, Nitrogen Oxide (No_x) and Carbon Dioxide, and many others, what can the PA-DEP require Shell to do to reduce and even mitigate these dangers?

1st - the DEP should not allow Shell to exchange the Emission Reduction Credits (ERCs) and reduce the NOx and VOC's (which produces ground-level ozone) at a higher level in one location in exchange for addressing ozone in another region.

2nd - Shell should be required to use every new state-of-the-art available technology to bring about emission reductions of VOCs within the Cracker facility itself so it cannot be released to the outside environment. In this way Shell can reduce the amount of ERCs it needs to purchase by reducing the amount of VOCs it does NOT produce to be released to the outside.

3rd – Shell and the DEP should explore other emissions reductions at existing facilities in Beaver County. Shell should base it's ERC purchasing on future emission reductions rather than purchasing from a facility that has already reduced it's emissions or those that have closed in the past. This would be more protective of the public health of residents in Beaver County as well as those down-wind in surrounding counties.

In further reducing the VOCs and Hazardous Air Pollutants (HAPs), the DEP should require Shell to install Fence-Line Monitoring which is essential for determining what emissions are leaving the facility and escaping into our community and such monitoring, acts as an early-response system. Being able to identify the exact amount, location and type of emissions going into our surrounding neighborhoods. In such case, Shell will be able to greatly reduce the hazards that people are exposed to.
Fence-Line Monitoring is becoming standard practice in other petrochemical facilities around the US and Shell must implement the same technology, in OUR area.

The DEP must also require Shell to monitor and test the amount of VOCs emitted from its flaring to make sure they are operating properly. Currently there are no individual limits on the amount of VOCs and HAPs that a flare emits because there is no monitoring and testing requirements to ensure the flaring has properly destroyed the VOCs. Due to the fact that flaring emits individual sources of pollution, it is therefore critical that Shell has a way to monitor individual pollutants and has limitations on what they can emit.
Thank you for the opportunity to provide this statement on the air pollution emitted from this proposed Shell Cracker Plant.

Testimony
"DEP Shell Water Discharge NPDES Application and Emissions Reduction Credits (ERC) Permit Conversion Application Public Hearing and Meeting"

Presented by Chelsea Holmes
Director of Community Education
Women for a Healthy Environment
December 15, 2016 Public Hearing
Monaca, PA

My name is Chelsea Holmes and I am here today on behalf of Women for a Healthy Environment located in Pittsburgh, PA. Our mission is to educate and engage the community about environmental risks that impact health and advocate for policy solutions that improve the quality of life for ourselves and our region.

We ask that the DEP consider the harmful effects of the Shell Cracker Plant facility on the region's air quality. Air modeling in SWPA has shown that this region is in the top 1-2% risk for cancer. In addition to hazardous air pollutants including carcinogens, such as benzene, being emitted from this facility, similar types of facilities around the country are also significant sources of emissions including Nitrogen Oxides (NOx) and Volatile Organic Compounds (VOCs). Both are precursors to ozone, or smog, a pollutant that already exceeds federal limits in the Pittsburgh region, which is why Shell has sought emission reduction credits.

Ozone can aggravate asthma and increase susceptibility to respiratory illnesses and disease. The 2015 PA Asthma Prevalence Report states that:

"In 2013 in Pennsylvania, an estimated [over 1.4 million] adults were diagnosed with asthma at some point in their lifetime. That is, one out of every nine adult residents in Pennsylvania has been diagnosed with asthma" nationally it is one out of twelve adults.

Close to a quarter of all adults and children in PA miss school or work due to asthma. This number is only expected to increase by 2020.

Shell should be required to comply with the most recent, up to date pollution regulations. As previously stated in other testimonies, Shell should be looking to reduce their VOC emissions, not just the amount of credits the company needs to purchase.

We request that the DEP reject Shell's application and require Shell to submit a new discharger permit application. The Shell Ethane Cracker will be a <u>brand new</u> facility and should be subject to all the water pollution limits that apply to <u>brand new</u> discharges.

Shell should not be allowed to claim it is an existing facility to escape having to comply with stronger pollution limits, please remember that the old zinc smelter that used to be at this location has been demolished.

We ask the **DEP to require Shell to comply with limits for Total Dissolved Solids ("TDS") and to reject its proposal to impose NO LIMITS at all on Shell's TDS discharges.**

Please allow me to reiterate that Shell is NOT an "existing" discharger of TDS—for the following reasons:

a. This is a brand new facility. The old facility has been demolished.
b. These are brand new discharges – an ethane cracker releases a completely different type of wastewater than a zinc smelter.

Shell has that admitted its discharges to the Ohio River – from where millions source their water– will be approximately *double to triple* the applicable limit of 2,000 milligrams/L, which puts health and the environment at risk.

The proposed permit allows Shell to discharge known or suspected carcinogens such as benzene, toluene, tetrochloro ethylene, and naphalene. As well as endocrine disrupting chemicals such as diethyl, dimethyl and di-n-butyl phthalate.

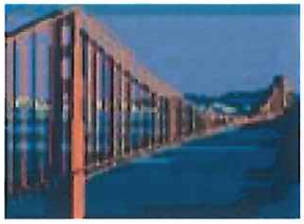
Endocrine disrupting chemicals impact or interfere with the natural hormones in our body thereby impacting reproductive development, such as increased infertility, precocious puberty in females, and decreased sperm count in males, as well as impacts to our metabolic function.

We are not only concerned for our Pennsylvania communities, but also for our neighbors across state lines in East Liverpool, Weirton, Steubenville, Wheeling, and Parkersburg-- a community that is already vulnerable due to their significant exposure to the toxic chemical C8, which has been shown to cause kidney and testicular cancer, liver disease, thyroid problems, high cholesterol, heart problems, and pregnancy induced hypertension. The fact that vulnerable communities downstream from the Shell Cracker Plant are unaware of what is being proposed, is an environmental justice issue.

Can we be guaranteed that these various toxic chemicals will be filtered out of the water before they reach somebody's tap?

We are told that small doses of chemicals won't hurt you, but the cumulative impact of toxic chemicals over time are of concern to us and the communities that we serve.

We ask that you please deny the permit applications as they have been presented. Thank you for your time and attention this evening.



BridgeWorks LLC
1403 Second Avenue
Beaver, PA 15009
Tele: 412 721 3952
Fax: 724 728 7294

December 15, 2016

Pennsylvania Department of Environmental Protection
400 Waterfront Drive
Pittsburgh, PA 15222

Verbal Testimony

I would like to thank the Pennsylvania Department of Environmental Protection (DEP) for the opportunity to provide this testimony in support of the issuance of the NPDES permit modification and plan approval modification for the air permit to Shell Chemical Appalachia, LLC. I'm speaking to you this evening as a member of the Pennsylvania Independent Oil and Gas Association (PIOGA) and as the principal of BridgeWorks LLC, a company located in Beaver.

We appreciate the time and effort expended by both Shell and DEP in developing the draft NPDES permit, and encourage DEP to issue the final permit promptly and in accordance with their administrative requirements.

The plan approval modification for the air permit will result in an overall improvement to the area's air quality. In some areas, including the Pittsburgh-Beaver Valley air shed, formation of ozone is limited by the availability of NOx. This means that an increase in VOC emissions will have a lesser impact on ground-level ozone formation, and that reducing emissions of NOx is more important to improving local air quality. Air quality laws and regulations allow companies to trade between VOCs and NOx if it can be demonstrated that local air quality improvements will be equivalent to, or better than, the scenario where this trading had not occurred. Shell has demonstrated this is the case, and DEP and U.S. EPA have agreed. We support this interprecursor trading and encourage DEP to issue the final permit in accordance with their administrative procedures.

Thank you for your thoughtful attention.

Tim Wetzel
Principal

PIOGA
Pennsylvania Independent Oil & Gas Association

Northridge Plaza
115 VIP Drive, Suite 210
Wexford, PA 15090

Office: 724-933-7306
Fax: 724-933-7310

December 15, 2016

Pennsylvania Department of Environmental Protection
Southwest Office
400 Waterfront Drive
Pittsburgh, PA 15222

RE: Shell Chemical Appalachia LLC; Modification of Air Plan Approval

Dear DEP Representatives:

Thank you for allowing me time to speak. I am Joyce Turkaly, Director of Natural Gas Market Development for the Pennsylvania Independent Oil & Gas Association, (P.I.O.G.A.). PIOGA is the principal non-profit trade association representing Pennsylvania's independent oil and natural gas producers, marketers, service companies and related businesses.

How to balance air quality concerns with economic growth is at the core of this evening's discussion. The type and amount of emissions specific to this project are documented by thorough project specifications that have been a matter of public scrutiny for more than two years now. In 2014, Shell Chemical Appalachia, LLC (Shell) hosted three educational and public engagement sessions (April, September, November) intended to explain all aspects of what was a "proposed" project. Shell provided the educational tools that have opened and welcomed public dialogue; more specifically the residents of Beaver County have had the opportunity to learn about the project and ask questions on the issues of site remediation, safety, environmental and health concerns and general knowledge of plant operations as well as the manufacturing of the polyethylene, the product itself. It was the September, 2014 event that addressed the specifics of Air Quality and Safety. The subject matter was presented by Shell; however there were three subject matter experts (independent of the Shell staff) on hand to lend their unbiased professional expertise and perspective in order to answer questions from the audience on issues such as site remediation, human health, and safety concerns. In June, 2015 Shell received an air quality plan permit from the Pennsylvania Department of Environmental Protection; then in June, 2016 Shell further committed to this project financially which gets us to where we are today.

Air quality laws and regulations allow companies to trade between volatile organic compounds or VOCs and nitrogen oxide or NOx if it can be demonstrated that local air quality improvements will be equivalent to, or better than, the scenario where this trading had not occurred. Shell is asking to use additional NOx <u>credits</u> to offset VOC's, citing language in the credit offset regulatory provisions allowing them to do so. In our view, this is a **further benefit** to the region since, within this Pittsburgh-Beaver

Pennsylvania Independent Oil & Gas Association

Valley air shed NOx is limited; further NOx reduction has more impact in reducing ozone formation than would VOC reduction. The concern with VOC's is formation of ozone, created when VOC's combine with NOx. In the case of this valley, there is not enough of the NOx pollutant for ozone to form to the extent that the potential VOC emissions might otherwise yield; and Shell's mitigation approach to the VOC issue further reduces the amount of NOx that can be produced.

The Beaver Country community is no stranger to industrial projects and was very well prepared with questions on their top concerns regarding potential pollutants throughout the past three years. In talking with members of the community, they tell me that they are hopeful to work for Shell directly or benefit from the indirect jobs and influx of supply chain potential the petrochemical facility would bring. On behalf of the PIOGA staff and the 523 member companies under the Association, we support PA DEP's approval of the modification to Shell's air plan. We recognize the opportunities that this overall project brings to this region, and we welcome Shell as a new corporate neighbor in the region that we serve.

Best regards,

Joyce Turkaly, Director,

Natural Gas Market Development, P.I.O.G.A.

Stephanie Carter 12/15/14
333 Crescent Ave
New Castle, PA 16101

I urge the DEP to require an extensive baseline water quality report for every community in the immediate vicinity from the city of Pittsburgh to the downstream community of Wheeling, WV. Also, it is important to pay attention to the nearby community of Aliquippa, as it is unclear whether they have been completely evaluated for health and environmental impact considerations.

The most noteworthy chemical of mention would be Benzene, Benzene is a building block in the production of petrochemicals, per the Agency for Toxic Substances & Disease Registry, which is a US Government database, it can affect the following organ systems Hematological system, Immune System, and the Nervous System.
Cancer Classification: it IS Known to be a Human Carcinogen
Benzene can pass from the mother's blood to a fetus.
Long-term exposure to benzene can cause cancer of the blood-forming organs. This condition is called leukemia. Exposure to benzene has been associated with development of a particular type of leukemia called acute myeloid leukemia (AML). Both the International Agency for Cancer Research and the EPA have determined that benzene is carcinogenic to humans.
Exposure to benzene may be harmful to the reproductive organs. It is not known what the effects of exposure to benzene might have on the developing fetus in pregnant women or on the fertility in men. Studies with pregnant animals show that breathing benzene has harmful effects on the developing fetus. These effects include low birth weight, delayed bone formation, and bone marrow damage.
Several tests can show whether you have been exposed to benzene. All of these tests are limited in what they can tell you. The test for measuring benzene in your breath must be done SHORTLY after exposure. This test is not very helpful for detecting very low levels of benzene in your body. Benzene can be measured in your blood. However, because benzene rapidly disappears in the blood, measurements may be useful only for recent exposures.
EPA has set a GOAL of ZERO 0 ppb for benzene in drinking water and in water such as RIVERS and lakes because benzene can cause leukemia.

It is extremely important to the nearby residents, and to the downstream residents, that would extend into West Virginia, that if this plant does get built, that every resident and agency demand the continuous and frequent monitoring of the public health including close monitoring for Benzene.

DEP Hearing – Shell Petrochemical Plant request for modifications of their required Emission Reduction Credits
December 15, 2016 5-8pm
Central Valley High School
160 Baker Rd
Monaca, PA 15061

My name is Barbara Grover and I live at 5526 Wilkins Ave, Pittsburgh 15217. As chair of the Allegheny Group of the Sierra Club, I am speaking here this evening on behalf of its more than 5000 members here in southwestern Pennsylvania. The Sierra Club opposes approval of Shell's request for modifications to the original required Emission Reduction Credits (ERCs).

According to the document Shell submitted to you in April 2016 requesting this modification of Emission Reduction Credits(ERC) – and I quote
" . . . the Owner/Operator (Shell Chemical) shall secure 400 tons of NOx (Nitrogen oxide, 620 tons of Volatile Organic Compounds (VOC) and 159 tons of PM2.5 ERCs "
The table accompanying the letter, shows that Shell acquired ERCs of 198.15 Tons of PM2.5, 107 Tons of VOC and 1110.6 Tons of NOx. Consequently, they have an abundance of PM 2.5 and NOx credits but are 513 Tons short of VOC credits. So, it is clear Shell has not, at this point, met your requirements. Shell wants to substitute the NOx credits for the VOC credits. The Sierra Club strongly objects to allowing this substitution. Certainly, you - the DEP - set forth the original requirements for those specific tonnages for good, sound, scientific reasons. To allow this substitution negates your original valid, thoughtful and appropriate decision.

What precedent would this set for future situations? You establish specific requirements for the ERCs for Shell and other companies. Those companies can now ignore those requirements and ask for modifications just because they were unable or unwilling to procure the necessary ERCs. What happens to the balance of NOx and VOC emissions? What is the impact on ozone? What influence would those requested modifications have on the quality of the air people breathe? I don't believe that's the way you want the DEP to operate.

You know the health hazards of these emissions. Here in Potter Township and elsewhere around the country, testimony has been given by residents of Manchester, TX, and Mossville, Louisiana, who live surrounded by several Shell Petrochemical plants. They have become ill and some have died from breathing polluted air.

Your job is to PROTECT the environment in which residents of Pennsylvania live. We strongly urge you not to approve Shell's request for modifications of the ERCs.

Thank you for your time.

Testimony at the December 5, 2016 hearing, Central Valley High School, 160 Baker Road Extension, Monaca, PA 15061 for the Shell Chemical Appalachia LLC, Plan Approval 04-00740A (Emission Reduction Credits – ERCs1) and draft NPDES permit PA0002208, Amendment No. 1.

Nancy O'Leary
1817 McMinn Street, Aliquippa, PA 15001
724-378-8478
Noleary1209@verizon.net

My name is Nancy O'Leary, I live at 1817 McMinn Street, Aliquippa.

I am a member of the Beaver County Marcellus Shale Awareness Committee and am aware of the issues facing the people of Pennsylvania related to the gas industry and the mandate found in the principles of Section 27 of the Articles of the Pennsylvania Constitution of the people's right to clean air and water.

I concur with the other testimonies tonight that Shell and the DEP should (1) consider the harmful effects of not reducing emissions which contain hazardous air pollution and analyze its impacts relative to ground level ozone; (2) that Shell and the DEP should explore emissions reductions relative to the ethane cracker plant itself in order to reduce its emissions and the need for additional credits; (3) explore credits and emission reductions in other facilities in Beaver County based on present and future issues; and (4) explore emission reductions in other non-attainment areas which contribute to the ozone issues based on principles of protecting the present and future needs of public health.

Also, last week, I received a postcard from Shell which states that "Beaver County is transitioning from its industrial heritage from heavy metal processing into a modern industrial development of the 21st Century" and indicating that, Shell, "will be building a facility to minimize air quality impacts unlike those of the past." Clearly, by their own statement, Shell is building an entirely new modernized facility and, therefore, they must be subject to current water pollution limits as well and must comply with new more stringent modern water and air quality standards as an entirely new construction project and, thus, must submit a new discharge permit application subject to all new water pollution limits that apply.

The postcard also states that it will be seeking emission reduction credits. This seems disingenuous to seek credits, converting credits and sourcing credits from the areas without proper investigation. I ask the DEP first investigate credits for best practices for Beaver County and other offsets and make recommendations holding Shell to the strictest standards.

Also, the post card states that Shell will rely on off-site ambient monitoring systems rather than fence line testing but does not explain the wisdom or safety of such a decision. I understand that, because the facility is located in a valley area, there may be occasional or possible air inversion issues. Seemingly, when I look at the picture on the back of the postcard, any adverse air quality issues may travel some distance before detection endangering residents who live between the facility and the monitors. Thus, the need for fence line testing.

Overall, we can predict future behavior by reviewing past behavior. We can determine what to expect from Shell's petrochemical plant when we look at other such plants presently operating in Louisiana and Texas. We know, by testimony and video, that the presence of Shell's plant will subject the Beaver County residents and other surrounding communities to high noise levels, flaring and dangerous air pollution. Because of this, the operation of the plant will displace the people living within the proximity of the plant; thus, negating any benefit from the promise of a meager 600 jobs by Shell. I ask that the DEP insist that Shell provide fence line testing and perform the other investigations requested above to protect the health and welfare of this community.

Many working people in Beaver County are seeking good jobs to feed their families, to get ahead, and to live a peaceful life. However, the meager 600 jobs expected does not outweigh the harm which will be inflicted upon the people by allowing Shell to pollute at will, to resist fence line testing and to negate good practices; thus, bringing harm to the residents of Beaver County.

I ask the DEP to apply and hold Shell to the strictest of air and water standards, to insist on fence line testing for the safety of the residents, investigate emissions credit plans, and hold Shell subject to the stricter modern standards of a new facility.

Thank you.

Sustainable Environmental Development in Beaver Coun

As Beaver County transitions much of its large industrial heritage from heavy metal processing of the past cen into modern industrial development of the 21st century, the Pennsylvania Chemicals* project wants to share you what we are doing to address air quality.

As individuals who work, live, shop, recreate and raise families in the area, air quality is also very important to Our Pennsylvania Chemicals manufacturing facility is designed to minimize air quality impacts. The facilit designed and will be operated to comply with all applicable regulatory requirements designed to protect pu health and the environment.

Specifically:

- Shell will install the Best Available Control Technologies (BACT) on equipment for all applicable emission sources.

- Shell will meet the most stringent standard of Lowest Achievable Emission Rates (LEAR) for NOx and VOCs (those emission w contribute to ground level ozone formation) and for small particulates. The new facility will emit less than half of the NOx emissior the former facility at this location. Additionally, Shell will obtain emission reduction credits to offset emissions from the facility - at r greater than the facility's potential-to-emit amounts.

- Shell is seeking to provide the highest local air quality benefit by converting NOx emission reduction credits to VOC emission reduc credits and sourcing those credits from the local Pittsburgh/Beaver Valley area - thereby providing maximum local benefits.

- Shell's facility is subject to PA DEP oversight and ambient air monitoring from an existing network of local/regional air quality moni See map on front.

- The facility's main combustion emissions sources will have Continuous Emission Monitors installed to monitor emission levels ar verify compliance with permitted limitations.

- Shell will institute a stringent leak detection and repair (LDAR) program to ensure equipment and controls continue to operate pro and will include the use of infrared cameras to detect leaks in real time to enable quick response and repair as required.

** A project by Shell Chemical Appalachia LLC and its a*

Sustainable Environmental Development in Beaver County

The Pennsylvania Chemicals* project's dual goal is to create a safe place to work while addressing pathways of contamination from nearly a century of industrial use that could affect our waterways. While the site will not be operational for several years, we are already working hard to ensure our activities are protective of water resources and create positive improvement in the environment.

ironmental measures already taken by Shell to protect water quality include:

alled impermeable barriers (concrete and liners) between historically impacted soil and groundwater.

alled or replaced concrete culverts and other barriers to prevent historically impacted soil from reaching waterways.

alled berms around the site to ensure all runoff is collected for testing and treatment during the site preparation phase.

nstructed two lined retention ponds – sized to collect storm water from the site.

nstructed and operating two interim water treatment facilities for use during the site preparation phase to treat accumulated storm water or snow) that could contact potentially impacted soil prior to returning it to the Ohio River.

vered the site with an average of 7 feet of non-impacted soil (7 million cubic yards) to eliminate exposure to runoff.

ping fund a new water treatment facility for Center Township Water Authority and relocation of existing water wells to a new water intake to nize possible impacts to the local water supply due to construction.

ploying multiple testing points to ensure storm water is meeting applicable standards and regulatory requirements.

talling sixteen (16) groundwater wells to monitor and confirm Act 2 protection measures are working as designed to responsibly manage cted soils from past industrial use.

he project transitions into an operational mode, the facility's environmental team will:

r completion of appropriate testing, remove our interim treatment facilities.

l and treat process water through several levels of filtration to meet or exceed applicable regulatory requirements before returning it to the River.

ze 73 percent less water per day from the Ohio River than the former operator at this location.

** A project by Shell Chemical Appalachia LLC and its affiliates*

Jack Manning

I am Jack manning, executive director and president of the beaver county chamber of commerce as well as the executive director of the Beaver County Partnership for Community and Economic growth. On behalf of the Boards of those two organization we strongly support granting the permits necessary to support this project going forward.

In full disclosure, I previously worked over 35 years in the chemical industry for companies producing polypropylene, polystyrene and polyethylene materials, including serving as a plant manager and director of manufacturing. We can debate all types of potential benefits and issues that arise in a facility like the one proposed, but here is the bottom line for me.

Will Shell operate within the parameters established by the rules, regulations and laws established by Congress and the Commonwealth of Pennsylvania at all governmental levels, and I think it is clear, having listened to hours of testimony from officials Tuesday night in potter township, that that answer is a resounding yes.

The extensive lengths that Shell is going through to listen and respond to the local community and adhere to Township ordinance demands; and find the best and latest technology to abate sounds, and minimize lighting issues and inform the public is truly remarkable to someone like me who worked in that industry.

In fact, it has become apparent to me that there are very few companies in the world, I could probably count them on one hand, who could build ~~and~~ state of the art, world class polyethylene facility like SHELL is doing. We should feel fortunate that Shell is THE first one building a facility like this in our region. They are setting a standard that will be very difficult to meet.

I know that none of what I SAY ~~is said~~ here will NOT appease or be taken seriously by those who are ideologically opposed to the industry. I get that. But after so many years in the industry, and seeing the technological advances, the engineering genius, ~~and~~ the training and dedication of the employees that work in the industry, and will work at this facility, I have complete confidence that it will also be managed in a world class manner. and Fully [illegible]

The economic and community growth ~~it~~ this project will bring to Beaver County will enhance our standard of living, and bring greater prosperity the region and help reverse the population decline of Beaver County, which peaked in 1972 at 208,000 people and now hovers at less than 169,000.

Fewer people means less taxes, more strain on schools and small business, more blight in traditional downtowns, and a smaller employee pool to fill job openings. This is a long awaited and much needed spur to get Beaver County and the region's economy growing again. And we wholeheartedly support it and recommend the granting of the permits.

THANK you for your TIME & CONSIDERATION

Comments before the:
PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

In support of the:
SHELL CHEMICAL APPALACHIA PETROCHEMICAL COMPLEX

December 15, 2016

Central Valley High School
160 Baker Road Extension
Monaca, Pennsylvania

PRESENTED BY:

DAVID N. TAYLOR
President
Pennsylvania Manufacturers' Association

PMA
PENNSYLVANIA
MANUFACTURERS' ASSOCIATION

My name is David N. Taylor and I am the President of the Pennsylvania Manufacturers' Association. We are the statewide, nonprofit trade organization that represents the people who make things here in our commonwealth; generating over $82 billion annually in gross state product, directly employing 570,000 hardworking Pennsylvanians on the plant floor, and sustain millions of additional Pennsylvania jobs through supply chains, distribution networks, and vendors of industrial services. I am honored to be here today commenting before the Pennsylvania Department of Environmental Protection in support of the Shell Chemical Appalachia Petrochemical Complex and the necessary permit approvals to continue to advance this project.

On June 7 of this year, Royal Dutch Shell announced the confirmation of this long-awaited multibillion-dollar petrochemical plant – an ethylene cracker facility that will revolutionize industry in Pennsylvania. The significance of this investment is enormous because it will serve as a catalyst for transformative economic activity and a new prosperity for Pennsylvania. Many today will testify on the specifics of the science associated with these permits, but I am here to properly weigh the economic benefits that our Commonwealth and nation will realize with the construction of this facility.

The Shell Chemical Appalachia Petrochemical Complex will split a hydrogen molecule off ethane, which is being harvested along with the methane – what we call "natural gas". That "cracked" ethane is called ethylene. Ethylene is the feed stock – the core manufacturing input – of every kind of paint, glaze, solvent, adhesive, coating, plastic, rubber, and Styrofoam used in every kind of consumer good that you and I purchase, handle, and use every day. Chemical companies have dubbed ethylene, "the most important basic chemical product in the world." We will now make that "most important basic chemical product in the world" right here in Monaca, Beaver County, Pennsylvania.

Today, there are no ethylene facilities in the United States north of Baton Rouge, Louisiana. Producing this important chemical - this building block of modern manufacturing – right here in Beaver County will lower production costs for our manufacturers. That will create a more economically competitive Pennsylvania which means a revitalized plastics industry in north-west Pennsylvania, more steel production throughout our commonwealth for gas extraction and infrastructure development, and more refining and export opportunities in our ports in Philadelphia and Pittsburgh. The opportunities for economic growth are infinite.

Estimates are that Pennsylvania will realize a $4 billion private-sector investment in the construction phase alone. If built as planned, it will be the only petrochemical facility of its kind in the northeast United States; the synergy from co-location by manufacturers using the feedstock produced here is almost beyond imagining. The ethylene production will revitalize our economy by growing our economic output in the form of manufactured goods, and new people will be

employed in the manufacturing sector to produce those goods, transport those goods, and sell those goods throughout the world.

Manufacturers in particular depend on the affordable natural gas for fuel and gas byproducts, particularly ethylene, to remain globally competitive. Total natural gas demand is poised to increase by 40 percent over the next decade and researchers at the National Association of Manufacturers found the key drivers of this demand will be manufacturing and power generation.

Industrial end users of natural gas – facilities such as the Shell Chemical Appalachia Petrochemical Complex - are the second-largest consumers of this important commodity. The industrial sector accounted for 31% of consumption in the United States in 2014. According to the Cambridge Energy Research Associates, approximately 80 percent of total industrial demand for natural gas comes from the manufacturing sector.

In 2012 alone, the American Chemical Council studied the potential impact natural gas could have on employment and found there to be 2.2 million family sustaining jobs available nationally in downstream related activity. Locating these investments in Pennsylvania should be the intelligent business decision. According to a new analysis by Pricewaterhouse Coopers, shale gas development could provide manufacturers annual cost savings of $22.3 billion in 2030 and $34.1 billion in 2040 and 930,000 shale gas-driven manufacturing jobs created by 2030 and 1.41 million by 2040. These realized cost savings and job creations are a direct causation of projects such as the Shell Chemical Appalachia Petrochemical Complex.

The petrochemical manufacturing industry that is waiting to be born will bring economic growth greater than Pennsylvania has already seen from drilling. We must embrace this energy opportunity by connecting Marcellus Shale natural gas production with industrial, commercial, and residential consumers across Pennsylvania and throughout the Mid-Atlantic region. If we do, Pennsylvania will usher in decades of prosperity, generations of job opportunities, and the brighter future we all want for our families, neighbors, and friends.