



PA Section Newsletter

American Institute of Professional Geologists

12/31/2017 2017 Volume 2

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President’s Message

“It was during my enchanted days of travel that the idea came to me, which, through the years, has come into my thoughts again and again and always happily—the idea that geology is the music of the earth.”
 — Hans Cloos, **Conversation with the Earth**

Our AIPG Section has been active this past year. We had a very successful conference in April with a focus on PFC (PFOA etc.) compounds. Subjects ranged from field work methods, analytical procedures, and regulatory and legal discussions. Our State Geologist, gave the opening address with several technical presentations given by experts in the field. The Harrisburg Area Geological Society (HAGS) was a great partner and helped sponsor the conference.

Another area our Section is emphasizing is student participation; from job mentoring, scholarship support and continued support of our AIPG student chapter at Temple University (founded in 2007). The Section is also planning a second student chapter in 2018 and is talking to two universities. Our officers this year have been absolutely energized which ensures a strong program of meetings, workshops, and networking events in the future.

The first technical meeting is scheduled for the Wilkes Barre Area in 2018 and is focused on coal mine drainage/mine reclamation, in partnership with the Eastern Coalition for Abandoned Mine Reclamation. There will be a series of technical activities which include a field trip in the Philadelphia area, another technical conference in Harrisburg, and a planned meeting in the Johnstown area. Our executive

Upcoming Events



February 1, 2018, 6:30 PM - PA Section Executive Committee Meeting-Contact Section Officer(s) if you wish to attend.

March 3, 2018; 9:30 AM to 4:30 PM – Mine Reclamation Meeting/Workshop. Jointly with Eastern PA Coalition for Abandoned Mine Reclamation (EPACAMR) - Wilkes Barre - details will be announced soon.

April 2018; Date and Time TBD - Wissahickon Park Field Trip (Philadelphia Area)

Late Spring (May or June) - Economic Geology Seminar (Central PA)

April 18, 2019 1:00 to 7PM – Don’t miss the Brownfields Coalition of the Northeast (BCONE) “Arts On Brownfields” register at:

<http://brownfieldcoalitionne.org/>



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committee is dedicated to more frequent communication as we revive our PA Section, more involvement of members, and progress in legislative issues with the establishment of two committees; one on the establishment of more comprehensive ground water regulations in PA and the second committee on natural resources in our State.

So we will be sending out alerts on our activities as well as publishing a newsletter at frequent intervals. We ask our members to get involved and suggest activities that you would like to see. Of course, we are looking to our members to help create a better program to support our AIPG Section. Thanks for helping to make 2017 a new beginning. **Dennis Pennington, Section President**

The 2017 National Brownfields Training Conference comes to Pittsburgh!

By Joe Kraycik, PA Section Secretary (Environmental Standards, Inc.)

The 2017 National Brownfields Training Conference was recently held in our home state. Cosponsored by the U.S. Environmental Protection Agency (EPA) and the International City/County Management Association (ICMA), the National Brownfields Training Conference took place December 5-7, 2017, at the David L. Lawrence Convention Center in Pittsburgh. Pre-conference workshops and EPA Regional open houses were held on December 4th. The conference, which is held every two years in various cities across the U.S., is the largest gathering of stakeholders with a vested interest in remediating and redeveloping vacant or underutilized commercial and industrial sites. Redevelopment of these sites is often complicated by environmental or potential environmental impacts. Representatives from the AIPG Pennsylvania Section attended this year's event.



Photo: "Beyond Brownfields to Breweries" (mobile workshop at a distillery).

The first National Brownfields Training Conference was held in Pittsburgh in 1996 shortly after the inception of EPA's Brownfields Program and is often thought of as the city where the cleanup and redevelopment movement began. The opening plenary session officially kicked off Brownfields 2017 and featured remarks from Rich Fitzgerald of Allegheny County, Patrick McDonnell of PA DEP, and Albert (Kell) Kelly of EPA. Dan French delivered the keynote address which focused on the importance of brownfields redevelopment to our communities and the economy.

Photo: From morning run hosted by EPA.



A wide variety of presentations, workshops, films, and networking events presented opportunities for attendees to learn how to overcome the challenges associated with brownfields sites. The Brownfields 2017 exhibit hall featured over 150 booths hosted by federal agencies, engineering and environmental consulting



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firms, developers, remediation companies, law firms, financial experts, laboratories, and nonprofits, among others. A number of “mobile workshops” were also offered and allowed conference attendees the opportunity to visit and learn about brownfields sites in and around Pittsburgh that have either undergone successful redevelopment or are currently being redeveloped.

The State of Natural Gas Production in Pennsylvania

By Joe Kraycik, PA Section Secretary (Environmental Standards, Inc.)

As geologists and geoscientists, many of us have been involved firsthand or have kept a close eye on the development of shale gas resources in Pennsylvania over the past ten years. The first exploratory well in the Marcellus Shale formation in the commonwealth was completed in 2004 and by 2007, the early stages of the unconventional shale-based natural gas revolution were underway. Extensive infrastructure development and drilling occurred in northern and western Pennsylvania during the late 2000's and early 2010's.

Christina Simeone of The Kleinman Center for Energy Policy at the University of Pennsylvania recently authored the report *Pennsylvania's Gas Decade, Insights into Consumer Pricing Impacts from Shale Gas (2007 – 2016)* which explores and highlights how the shale gas revolution has impacted natural gas pricing in Pennsylvania. The full report is available here:

<http://kleinmanenergy.upenn.edu/sites/default/files/Pennsylvania%27s%20Gas%20Decade.pdf>

A number of noteworthy statistics are presented in the report including the following:

- Between 2007 and 2016, Pennsylvania has grown from producing a mere 1% to 16% of our nation's total natural gas output with production growing 2,800% over that same time period.
- Consumer gas prices in Pennsylvania have decreased significantly.
- Since 2013, Pennsylvania consumers have generally enjoyed a discount in natural gas commodity prices as compared to national prices.
- Residential retail gas prices in the state have dropped 40% from 2007 to 2016; a decrease of \$6.79/Mcf.
- Since 2007, the commodity rates that Pennsylvania natural gas distribution companies are permitted to charge their customers has decreased by 72%, from an inflation adjusted annual average of \$11.76/Mcf in 2007 to just \$3.28/Mcf in 2016.
- By 2016, the annual average delivered electric power prices to Pennsylvania gas generators were \$1.04/Mcf below the national average.
- Industrial and commercial natural gas costs in Pennsylvania dropped significantly; between 2010 and 2016, the PA Hubs Average proxy dropped 65.8% versus a 44% reduction in the Henry Hub prices.
- Gas demand from Pennsylvania's electric power sector (including many new gas-fired power plants) increased by almost 250% during the study period.



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- In 2011, Pennsylvania began exporting natural gas. Today, our state exports or stores 75% of its production. By contrast, in 2007, Pennsylvania consumed four times more natural gas than it produced.
- Pipeline infrastructure capacity growth has not kept pace with production growth. During the study period, Pennsylvania saw more project proposal applications (53) for major interstate gas pipelines than any other state.

It is clear from the statistics that the shale gas revolution has directly translated into a variety of economic benefits for both residential and commercial/industrial gas consumers in Pennsylvania. With increased pipeline capacity in the future, it is possible that even more of the natural gas produced in Pennsylvania can be exported. The abundance of natural gas in our state has also led to a shift from coal to gas-powered electric generating power plants. One example is a 450 MW natural gas fired combined cycle electric generation facility that is currently being constructed in Birdsboro, Pennsylvania. Only time will tell what the next ten years holds for Pennsylvania relative to the economic impacts of natural gas production. If the next ten years are similar to the past nine, however, we are likely in store for some exciting times.



Photo: Natural gas-fired power plant under construction in Birdsboro, PA.

Geo-Photo



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Quartzite from Wissahickon Formation (near Philadelphia)



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Call for Articles

We want to keep our newsletter interesting and relevant. That is where you, the reader, comes in. Please submit articles that you feel meet the goals of the newsletter. Email your entries to medelman@trcsolutions.com.

Call for Editor

We are seeking an editor for future PA Section newsletters. This is an opportunity to demonstrate your creativity and apply your editorial skills to deliver an accomplished product. You will have the writing support of the PA Section Executive Committee, as well as accomplished geologists throughout the Commonwealth. Please reply to Dennis Pennington at pennden15@gmail.com. With your name, address, email address, and phone number along with a brief summary of your editorial skills.

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