



AIPG GEORGIA SECTION

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January 2018

GA Risked-Based Corrective Action (GRBCA) for Petroleum Sites – Testing Begins

Speaker: Jay Kemberling, Georgia EPD

When: Friday, January 19, 2018 at 12 noon to 1:00 PM

Where: S&ME, Inc. – 3380 Town Point Dr NW Suite 140
Kennesaw, GA 30144

AIPG Members and guests call or email by Thursday January 18, if you plan to attend
[Call or Email Greg Cherry at gccherry@usgs.gov or (678) 924-6632]

PRESIDENTS MESSAGE

I just got word that AIPG National Executive Committee will be meeting in Atlanta at the Drury Inn & Suites Atlanta Airport 1270 Virginia Ave, Atlanta, GA on Saturday February 3, 2018. The meeting usually last all day from 9:00 AM to approximately 4:00 PM. All members are invited to attend and I've heard that they would especially like to hear from some of our student members. I will be attending and will probably try to get there by 10:00 AM and stay most of the day.

I recently mailed out letters to our members requesting donations to support our student chapters. All funds received go to our scholarships. We do use our section funds to cover most of the cost.

I recently reviewed our membership over the last two years and for 2016 we added only 1 CPG, 3 professional members, 47 student members and 4 young professional members. This past 2017 we had 0 CPGs, 13 professional members, 27 student members, and only 1 young professional. We have a number of very senior members that I would encourage them to submit an application to CPG. Also we need to encourage our student members to continue their membership and apply for young professional. Also there are young geologists that are not members. If you have some in your organization, please encourage them to join.

The deadline for AIPG National scholarships is February 15, 2018.

For 2017 we had one scholarship winner from West Georgia and one from University of North Georgia. AIPG National gave out 16 undergraduate and two graduate scholarships. Below are the application requirements. I encourage all our student members to consider applying. Note that AIPG National Headquarter has a new mailing address below.

AIPG National Undergraduate Scholarship

Purpose

To assist students with college education costs and to promote student participation in the American Institute of Professional Geologists (AIPG). Up to ten scholarships will be awarded to declared undergraduate geological sciences majors who are at least sophomores. Details for applying for these scholarships are provided below.

Scholarship Awards

Scholarship awards in the amount of \$1,000.00 - \$3,000 each will be made to eligible students attending a college or university in the U.S. Scholarships are intended to be used to support tuition and/or room and board.

Eligibility Requirements

Any student who is majoring in geology (or earth science), is at least a sophomore, and is attending a two-year or four-year accredited college or university in the U.S. can apply. Also, the student must be either a student member of AIPG or must have applied for student membership at the time the application for the scholarship is submitted.

Each student who is awarded a scholarship agrees, by accepting the scholarship, to prepare a 600 to 800 word article for publication in *The Professional Geologist*. The subject of the article must be related to a timely professional issue.

Application Process

1. Submit a cover letter introducing yourself and tell us what you have done outside of the classroom such as research projects, officer in club, or outside activities within the community. Address your career goals in near term and longer term. Provide your academic objectives: If you are attending a two-year institute do you plan to continue to a four-year institute and complete a degree? If you attend a four-year institute do you plan to attend graduate school?
2. Submit an essay on "Why I Want to be a Geologist."
3. Submit a copy of your transcript (unofficial) and documentation that you are a current student. Requisite standards to apply are a minimum GPA of 2.8 (on a 4 point scale) and a minimum of 12 semester credits of geology/geoscience courses with a 3.0 GPA in these courses completed at time of application.
4. Submit a letter of recommendation from a geology/geoscience professor that provides an emphasis on your performance and activities in the classroom, in the department, and your character in how you work and help other students.

The application packet should be submitted to:

American Institute of Professional Geologists
Attn: Education Committee Chr.
1333 W. 120th Avenue, Suite 211
Westminster, Colorado 80234
Questions regarding the application process can be directed to
(303) 412-6205 or e-mail: aipg@aipg.org.

Foundation of AIPG William J. Siok Graduate Scholarship Program

Purpose

To assist graduate students with college education costs and to promote student participation in the American Institute of Professional Geologists (AIPG). One scholarship will be awarded to a declared graduate student in an accredited geoscience program with an emphasis in environmental geoscience and/or hydrogeology. Details for applying for this scholarship are provided below.

Scholarship Awards

Scholarship award is in the amount of \$1,000.00 to an eligible graduate student attending a college or university in the U.S. Scholarships are intended to be used to support tuition, room and board, and/or research.

Eligibility Requirements

Any graduate student who is majoring in the geosciences in the U.S. can apply. Also, the student must be either a student member of AIPG or must have applied for student membership at the time the application for the scholarship is submitted.

The student who is awarded the scholarship agrees, by accepting the scholarship, to prepare a 600 to 800 word article for publication in *The Professional Geologist*. The subject of the article must be related to a timely professional issue.

Application Process

1. Submit a cover letter introducing yourself and tell us what you have done outside of the class room such as research projects, officer in club, or outside activities within the community. Address your career goals in near term and longer term.
2. Submit an essay on "Why I Want to be a Geologist."
3. Submit a copy of your transcript (unofficial) and documentation that you are a current student. Requisite standards to apply are a minimum GPA of 2.8 (on a 4 point scale) and a minimum of 12 semester credits of geology/geoscience courses with a 3.0 GPA in these courses completed at time of application. Those credits can come from previous grad or undergrad studies.
4. Submit a letter of recommendation from a geology/geoscience professor that provides an emphasis on your performance and activities in the classroom, in the department, and your character in how you work and help other students.

The application packet should be submitted to:

American Institute of Professional Geologists
Attn: Education Committee Chr.
1333 W. 120th Avenue, Suite 211
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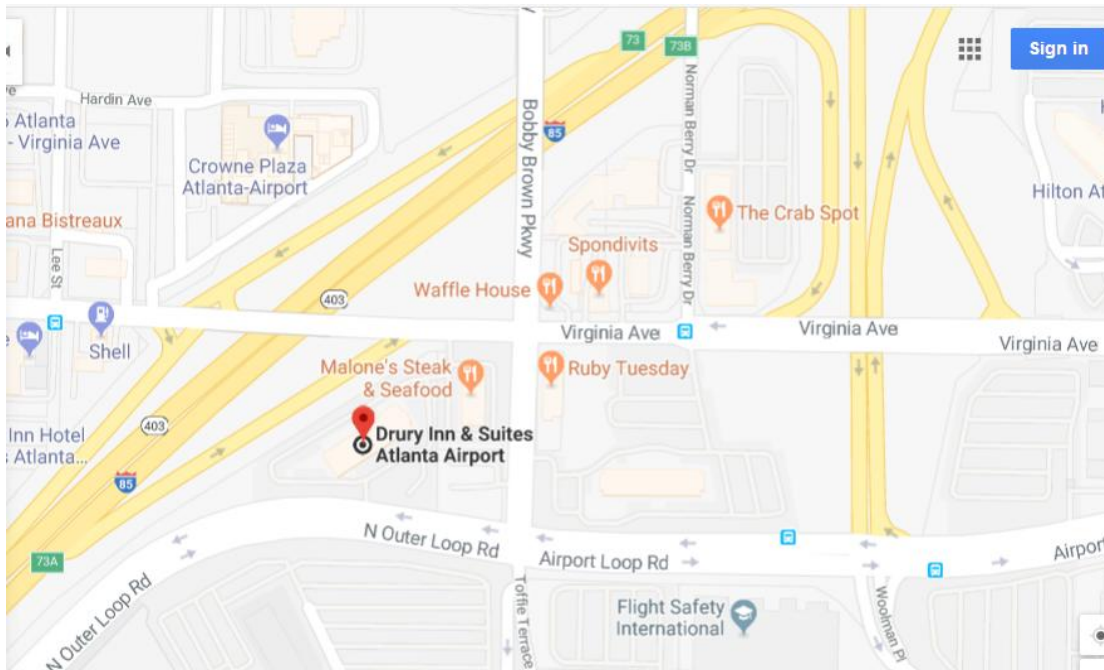
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Third SouthEastern States Vapor Intrusion Symposium (SESVIS)

The Third SouthEastern States Vapor Intrusion Symposium (SESVIS) will be held on February 8 and 9, 2018 at the Crowne Plaza Atlanta Perimeter at Ravinia and is co-sponsored by the Georgia Tank & Equipment Contractors Association (GTEC) and by The American Institute of Professional Geologists (AIPG). There is a discount for attendees who are members of GTEC and AIPG. Exhibit spaces are also available and are also discounted for GTEC and AIPG members. For additional info, an agenda, and registration information go to www.sesvis.com. You may also call Bill Greer with GTEC at 770-426-1133.



AIPG National Executive Committee meeting location on February 3, 2018



Drury Inn & Suites Atlanta Airport 1270 Virginia Ave, Atlanta, GA

AIPG Georgia Section meeting on January 19, 2018

Jay will be the speaker but Shanna Alexander and Steven Wilson will be in attendance to also answer questions.

GA Risk-Based Corrective Action (GRBCA) for Petroleum Sites – Testing Begins...

Georgia Risk Based Corrective Action (GRBCA) – Applicable Threshold Determination at Petroleum Sites is a new process currently being tested for the USTMP and its environmental contractors. The new guidance has been developed in cooperation with EPD's Risk Assessment Unit (RAU), tasked to meet EPD's management objectives of providing consistency in the development and application of cleanup goals across the Land Protection Branch programs.

Petroleum constituents have higher attenuation rates compared to many other EPD regulated substances and this consideration is accounted for in the UST GRBCA process. GRBCA describes the soil and ground water risk evaluation processes, as well as the Petroleum Vapor Intrusion (PVI) inclusion process for affected structures from soil, ground water and free product. The companion Excel© Risk Analysis Report (RAR) Workbook provides an easy to use toolkit for consultants to enter exposure pathway, receptor and other site specific data to progressively evaluate a release site from Risk-based Threshold Level evaluation through determination of applicable Alternate Concentration Limits (ACLs), that may be requested for USTMP approval.

Staff and consultants may use the results of the analysis to consider multiple risk reduction strategies, or if chemicals of concern for the petroleum release are below risk based, site-specific threshold levels determined by the RAR workbook a site a responsible party may ask for and be granted no further action status for the release. The GRBCA process integrates principles of the 2014 ITRC and 2015 EPA Petroleum Vapor Intrusion (PVI) screening criteria and culminates in the VI Summary Report with VI driven recommendations. In addition to the PVI screening, soil and groundwater are also addressed by the RAR workbook. The draft guidance document and workbook is complete but is open to comments and suggestions by both internal and external stakeholders. The RAR workbook is currently available to staff and external stakeholders to comment and test.

GRBCA USTMP Staff Team:

Shanna Alexander, EPD RAU Manager

Jay F. Kemberling, CAU II Unit Manager

Steven Wilson, CAU II Advanced Geologist, GRBCA Process Lead

Shanna Alexander is the Risk Assessment Program Manager at the Georgia Environmental Protection Division specializing in vapor intrusion risk analysis, human health and ecological risk assessments. She is responsible for coordinating the toxicological work practices across programs and branches to ensure consistent application of the best available science to protect human health and the environment in Georgia. Since 2003, she has worked cooperatively with federal, state, and local health agencies to address concerns related to human, terrestrial and aquatic life exposures to environmental contaminants. She has worked on risk assessments incorporating geospatial analysis and site-specific bioaccessibility studies. She evaluates and oversees the application of EPA guidance and state rules and guidance to assess, document, defend, and make health risk

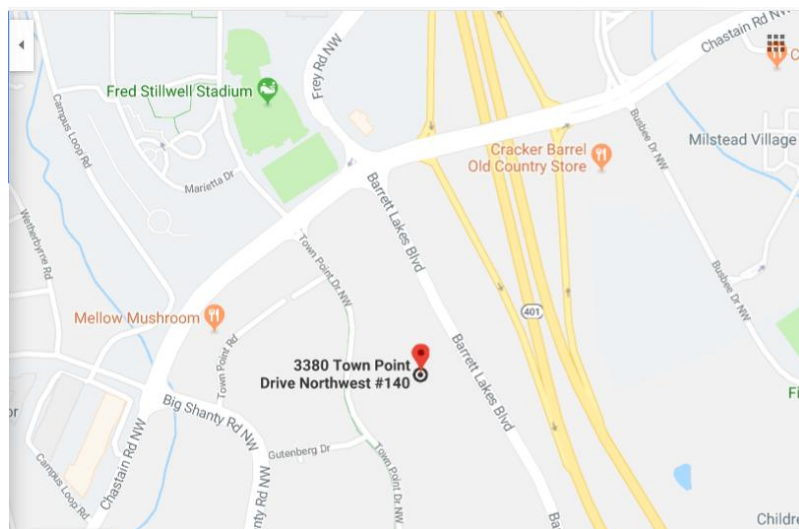
determinations in accordance with Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), Georgia VRP Act, Georgia Rules for Hazardous Site Response, Georgia Hazardous Waste Management Act, Georgia Rules for Solid Waste Management, and the Georgia Brownfield Act. Prior to GEPD, she worked as a toxicologist for Golder and Associates. Shanna has contributed to ITRC as a team member for the Risk Assessment, TPH Risk, and Geostatistics for Remediation Optimization teams. She earned a bachelor's degree in Molecular Biology and Chemistry from the University of Nebraska (Lincoln) in 2002 and Master's degrees in Toxicology and Public Health (Epidemiology) from Louisiana State University (Baton Rouge) in 2003 and Emory University (Atlanta) in 2006. Shanna is also a certified toxicologist with the American Board of Toxicology.

Jay Kemberling

Graduated from the Georgia State University with a BS in Geology in 1998. He is employed with GA EPD, Underground Storage Tank Management Program since 2001. Program experience diversified with experience in Regulatory Compliance, Corrective Action Unit (CAU) I for both Owner Operators & State Contractor cleanup sites and CAU II for GUST Trust Fund cleanup sites. Currently, the CAU II Unit Manager since August 2017. He is a trainer for the new USTMP GEOS and LEMIR data management systems that went live in July 2017. Career interests include promoting greater involvement for external stakeholders and leading UST technical program development including GRBCA and other guidance documents, either under development or planned.

Steven Wilson

Graduated from the University of Tennessee in Knoxville with a BA in Geology in 1985 and a Masters in Science in Education in 1986. Worked 29+ years with TN Department of Environment and Conservation. Most of those years were in the underground storage tank program as a field office manager, where highlights include being a long term contributor to technical and financial program development. Relocated to the Georgia USTMP in August 2015 where current assignments focus on technical program development.



Take exit to Chastain and go west of I-75. Take the second left pass the interstate to Town Point Drive heading south. Drive a few hundred yards south of Chastain and pass a curve in the road and a long building on your left to the next left into the parking area. Their office will be on your right.



Entrance to S&MEs office

FEDERAL DOCUMENTS

Senate Commerce Committee votes to advance earthquake and drought bills and NOAA nominee

At an executive session on December 13, the Senate Committee on Commerce, Science, and Transportation approved the National Integrated Drought Information System (NIDIS) Reauthorization Act of 2018 (S.2200) and the National Earthquake Hazards Reduction Program (NEHRP) Reauthorization Act of 2017 (S.1768) by voice vote.

Chairman John Thune (R-SD) and Ranking Member Bill Nelson (D-FL) introduced S.2200 on December 6 to reauthorize the National Oceanic and Atmospheric Administration's (NOAA) NIDIS program through FY 2023; it is currently due to expire after fiscal year (FY) 2018. The bill aims to improve the program by directing the National Weather Service (NWS) to develop a strategy for a national coordinated soil moisture monitoring network, and to partner with the private sector, academia, and citizen scientists for improved drought monitoring, forecasting, and communication. The bill also reauthorizes 15 U.S.C. 8521, enacted law for weather and climate information in agriculture, through FY 2023 for the NWS to provide and improve foundational forecasts of subseasonal and seasonal temperature and precipitation to the public.

While Senator Dianne Feinstein's (D-CA) NEHRP reauthorization bill omitted details on appropriations, the committee-approved legislation included an amendment in the nature of a substitute, proposed by Senator Cory Gardner (R-CO), to authorize funding for the program through FY 2022, rising from \$8.67 million in FY 2018 to \$9.39 million in FY 2022.

During the session, the committee also voted on partisan lines (14-13) to advance the nomination of Barry Myers as Administrator of the National Oceanic and Atmospheric Administration (NOAA) to the Senate calendar.

USGS releases new assessment of oil and gas resources in Alaska's North Slope, following annual lease sale

On December 22, the U.S. Geological Survey (USGS) released a new assessment of undiscovered oil and gas resources in the National Petroleum Reserve in Alaska (NPR-A), pursuant to a secretarial order issued in May of this year to jump-start energy production and update resource assessments for Alaska's North Slope. In 2010, the USGS estimated that 8.96 billion barrels of oil and 53 trillion cubic feet of gas remained undiscovered in the NPR-A. The 2010 report also concluded that, of these estimated volumes of undiscovered resources, only about 1.6 billion barrels of oil and 2.2 trillion cubic feet of gas may be technically recoverable. The updated 2017 assessment, however, estimates that undiscovered, technically recoverable resources in and near the NPR-A include 8.7 billion barrels of oil and 25 trillion cubic feet of gas – acknowledging these estimates are associated with large ranges of uncertainty.

Just weeks before release of the USGS report, the Bureau of Land Management (BLM) held its annual oil and gas lease sale for all available tracts in the NPR-A on December 6. The 2017 lease sale included 900 tracts, covering approximately 10.3 million acres of petroleum reserve land, which is the most territory ever offered for leasing in the NPR-A. Energy companies, however, showed little interest in the record sale. The sale lasted less than 10 minutes and received only 7 bids, all of which were placed jointly by ConocoPhillips and Anadarko, for less than 1 percent of the land offered. The sum of all seven bids was approximately \$1.16 million – a modest result compared to the \$18.8 million in revenue generated from the 2016 NPR-A sale.

Trump administration moves to revise Obama-era energy regulations through rulemaking process

Following several executive orders issued by President Donald Trump earlier this year to suspend, revise, or rescind regulations or actions that unnecessarily burden the development of domestic energy resources, the Department of the Interior (DOI) and the Environmental Protection Agency (EPA) announced rulemaking revisions to offshore drilling protections, fracking regulations, and the Clean Power Plan (CPP) in the final days of 2017.

On December 29, the Bureau of Safety and Environmental Enforcement (BSEE) published a proposed rule (82 FR 61703) to amend certain regulations for oil and natural gas production and safety standards that were previously instituted under the Obama administration. This rule would update the 30 CFR part 250, subpart H, Oil and Gas Production Safety Systems regulations, which were substantially revised by a final rule (81 FR 61834) that BSEE published on September 7, 2016, addressing issues such as production safety systems, subsurface safety devices, and safety device testing in an effort to better protect workers and the environment. The new regulatory proposal from BSEE states that these new amendments would reduce unnecessary burdens imposed on operators under the current regulations, while providing the same level of safety and protection of the environment. In an Initial Regulatory Impact Analysis, BSEE estimates that the proposed rule would reduce industry compliance burdens by \$33 million annually. The public comment period for the proposed changes is open until January 29, 2018.

Similarly, the Bureau of Land Management (BLM) published a final rule (82 FR 61924) to rescind a 2015 rule on hydraulic fracturing (80 FR 16128) that never took effect due to pending litigation.

The rule was intended to ensure that wells are properly constructed to protect water supplies, make certain that the fluids that flow back to the surface as a result of hydraulic fracturing operations are managed in an environmentally responsible way, and provide public disclosure of the chemicals used in hydraulic fracturing fluids. The BLM now justifies rescinding the rule due to unreasonable administrative burdens and compliance costs.

A day prior, the EPA moved forward in rewriting the CPP, promulgated under Section 111 of the Clean Air Act (42 U.S.C. 7411), by asking for public comments on a replacement rule by February 26, 2018 (82 FR 61507). Key to former President Barack Obama's climate mitigation plan, the CPP was challenged by 27 states and a number of other parties, and the Supreme Court issued a stay on implementation of the CPP on February 9, 2016. Following President Trump's executive order (13783) on energy independence, the EPA conducted a review of the CPP, concluding that "suspension, revision, or rescission of [the CPP] may be appropriate" based on the agency's reinterpretation of the statutory provisions underlying the CPP, and then published a Federal Register notice proposing to repeal the CPP on October 10, 2017. The December 28 advanced notice of proposed rulemaking solicits information on systems of emission reduction for the agency to consider in developing a future rule intended to reduce carbon dioxide emissions from existing fossil-fueled electric utility generating units.

House Natural Resources hearing revisits U.S. dependence on foreign minerals

The electronics and defense industries, among other key industries in the United States, rely upon the supply and availability of minerals – many of which are imported to the U.S. from other countries. Not only are these elements integral to the production of high-end electronics and advanced military technologies, but they also make up the foundation of many of our infrastructure projects. U.S. dependence for nonfuel mineral materials has more than doubled over the past 30 years. A recent U.S. Geological Survey (USGS) report revealed that the U.S. imported more than one-half of the apparent consumption of 50 nonfuel mineral commodities in 2016, and was 100 percent import-reliant for 20 of those.. In 2016, China and Canada were the largest suppliers of nonfuel mineral commodities to the U.S.

On December 12, the House Subcommittee on Energy and Mineral Resources held an oversight hearing, "Examining Consequences of America's Growing Dependence on Foreign Minerals," to discuss reasons for the declining self-sufficiency of the United States for mineral commodities, and the consequences of relying on foreign sources for critical minerals. The hearing featured expert testimony from Ronnie Favors, Administrator at the Defense Logistics Agency and Strategic Minerals of the Department of Defense (DOD); Murray Hitzman, Associate Director for Energy and Minerals for the USGS; Richard Silberglitt, Senior Physical Scientist for the RAND Corporation; Kate Sweeny, Senior Vice President of Legal Affairs and General Counsel for the National Mining Association; and Carletta Tilousi, Council Member of the Havasupai Tribe.

At the hearing, witnesses addressed the concept of mineral "criticality" – determined by a number of factors for minerals that are essential in use, with limited or no viable substitute, and vulnerable to supply chain disruption – and the challenges associated with the U.S. mining regulatory system. Mr. Favors recognized that given recent mine closures, export restrictions, and volatility of the world market, there is a growing focus on decreasing import reliance and increasing domestic material production in the United States. However, according to Ms. Sweeny, mining in the U.S. is not

appealing to private corporations because of the difficult and uncertain regulatory system. According to Dr. Hitzman, less than one-third of the United States has complete topographic, geologic, and geophysical 3D mapping coverage at the scale needed to inform mineral resource management. Increased domestic mining, particularly for uranium in the Grand Canyon was heavily criticized by Ms. Tilousi, due to perceived negative health and environmental impacts.

President Trump and Secretary Zinke sign orders to advance domestic production of critical minerals

On Wednesday, December 20, President Donald Trump signed an executive order to reduce America's dependence on foreign sources of critical minerals. The order requires the Departments of the Interior, Agriculture, Defense, and Energy to submit a report that includes a strategy to accomplish this goal, an assessment of progress toward developing recycling technologies and alternatives to critical minerals, a plan to improve the topographic, geologic, and geophysical mapping of the United States, and recommendations to streamline permitting, enhancing access, and increasing discovery, production, and domestic refining of critical minerals.

Shortly after President Trump's executive order, Interior Secretary Ryan Zinke released a secretarial order on Thursday, December 21 directing the initial steps to producing a nationwide geological and topographical survey of the U.S. In particular, the Secretary directs the U.S. Geological Survey (USGS) to ensure that U.S. miners and producers have electronic access to the most advanced topographic, geologic, and geophysical data, with appropriate limitations to protect critical infrastructure data such as those related to national security areas. Secretary Ryan Zinke explains, "Drafting a complete topographical and geographic survey of the United States is exactly the kind of task the USGS was created to do." The order also directs Interior bureaus to begin identifying domestic sources for critical minerals, and, upon finalization of a critical minerals list, to provide recommendations for streamlining review processes and access for developing critical minerals.

The executive and secretarial orders follow the release of a USGS report on 23 mineral commodities that are critical for the U.S. economy and security. The new volume, entitled Critical Mineral Resources of the United States, updates a previous USGS report that was published in 1973. The new report finds that the U.S. relies on overseas supplies for at least 50 percent of all but two of critical minerals – beryllium and titanium – and that most of those are sourced from China.

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