Message

From: IADC Drilling Contractor [drilling.contractor@iadc.org]
Sent: 7/25/2018 2:05:28 PM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
Subject: [SPAM] eNews from DrillingContractor.org - 25 July 2018

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IADC supplier metrics, scorecard aims to align expectations, promote performance improvement

The IADC Supply Chain Committee has developed standard supplier metrics and a scorecard. The supplier metrics were evaluated on impact to the supply chain process and the measurability by both suppliers and drilling contractors, according to **Andy Poosuthasee**, Director of Supply Chain for **Vantage Drilling**, who also serves on the IADC committee. The standard metrics will be used to create a balanced scorecard that drillers can share with suppliers so they understand the driller's priorities and expectations, and are relevant and meaningful with their areas of expertise and business. Watch *DC*'s video as Man aging Editor **Linda Hsieh** talks with Mr Poosuthasee about the driver for developing these metrics and how they work. A FAQ about the supplier metrics and scorecard can also be found here.

WATCH THE VIDEO FOR MORE INFORMATION

Independence Contract Drilling and Sidewinder Drilling announce merger

Independence Contract Drilling (ICD) and **Sidewinder Drilling** have jointly announced their entry into a definitive merger agreement pursuant to which ICD will acquire all of the outstanding equity interests in Sidewinder.

The merger will combine two pad-optimal drilling fleets and operations focused on the Permian Basin, Haynesville region and other basins in Texas and its contiguous states.

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Creative Learning Spiral can help oil and gas companies foster innovation among employees

As the oil and gas industry strives for innovations that can help it to maximize operational performance and improve safety, companies might want to look to the Creative Learning Spiral as a valuable tool. The framework, which centers around imagination and cycles through phases of create, play, share, then back to imagination again, can be used to foster innovation both when companies are looking for bold, new ideas and when only small process improvements are needed. In this video, *DC* Managing Editor **Linda Hsieh** speaks with **Clena Abuan**, Senior Technology Associate for **BP**, about how companies can deploy the Creative Learning Spiral, as well as BP's work to develop a model that can predict the probability of a safety incident occurring.

WATCH THE VIDEO FOR MORE INFORMATION

ExxonMobil raises Stabroek recoverable resource estimate to more than 4 billion BOE

ExxonMobil has increased its estimate of the discovered recoverable resources for the Stabroek Block offshore Guyana to more than 4 billion BOE and has advanced its evaluation to support a third phase of development and consideration of two additional phases.

The increase follows completion of testing at the Liza-5 appraisal well, a discovery at Ranger, incorporation of the eighth discovery, Longtail, into the Turbot area evaluation and completion of the Pacora discovery evaluation. The previous recoverable resource estimate was 3.2 billion BOE.

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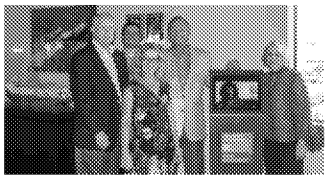
IADC donates Drilling Matters Kiosk to Ocean Star Rig Museum



IADC recently donated a kiosk loaded with interactive educational information about the upstream oil and gas industry to the Ocean Star Offshore Drilling Rig Museum and Education Center in Galveston, Texas.

The kiosk content includes an interactive drilling rig, a 3D game and narrated videos, along with basic information about drilling equipment and operations, the importance of hydrocarbons in fueling the global economy, facts about industry safety and environmental stewardship and more. The material contained in the kiosk mirrors that contained online at IADC's Drilling Matters website.

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Shell secures exploration acreage offshore Mauritania

Shell Exploration and Production Mauritania has signed two production-sharing contracts with the government of Mauritania for the exploration and potential future production of hydrocarbons in offshore blocks C-10 and C-19.

"This move represents Shell's entry into the West African Atlantic Margin exploration basin, which has significant potential," **Andy Brown**, Shell's Upstream Director, said. "We look forward to working with the government and people of Mauritania as we bring our expertise and technical capability to help develop the country's emerging energy sector."

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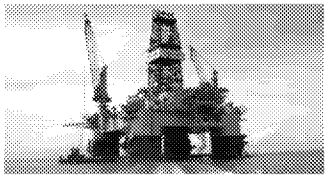
Transocean announces 11-well contract for GSF Development Driller I



Transocean has announced that the ultra-deepwater semisubmersible GSF Development Driller I was awarded an 11-well contract (approximately 955 days) commencing offshore Australia in the first half of 2019 with **Chevron Australia**. The estimated firm contract backlog, excluding integrated services, is approximately $158 million. Additionally, the contract includes four one-well options.

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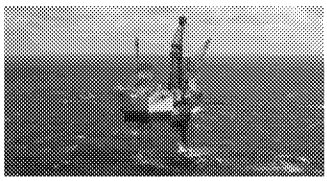
Maersk Drilling secures two contract extensions in North Sea



The Maersk Resolute has been awarded a 56-day contract extension by **Petrogas** to continue its work in the Dutch sector of the North Sea, where it has drilled multiple wells since commencing operations in June 2017. During the campaign, the Maersk Resolute has drilled the shallowest horizontal gas well in the A&B area. The extension brings the contract with Petrogas to a total of 106 days.

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Industry collaborates with McDonald Observatory to reduce excess light from West Texas oil and gas operations

The University of Texas at Austin's McDonald Observatory has collaborated with the Permian Basin Petroleum Association (PBPA) and the Texas Oil and Gas Association (TXOGA) to reduce light shining into the sky from drilling rigs and related activities in West Texas. The excess light has the potential to drown out the light from stars and galaxies and threatens to reduce the effectiveness of the observatory's research telescopes to study the mysteries of the universe.

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Petroteq signs acquisition agreement for Utah oil sands acreage

Petroteq Energy has signed a letter of intent (LOI) with **Mareton Alliance** to acquire leases and resources within the Utah oil sands region.

David Sealock, Chief Executive Officer of PetroTeq, stated, "Growing our asset base is a key initiative that I have been pushing since my arrival at Petroteq this year. I know that our valuation will be driven by our production and technology, as well as our assets in the ground. The discussions with Mareton Alliance have the potential to significantly increase the resource assets on our balance sheet."

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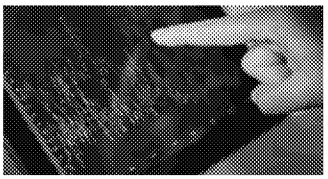
ICE to launch futures contract based on Permian crude deliveries to Houston



Intercontinental Exchange (ICE), an operator of global exchanges and clearing houses for US financial and commodity markets, will launch in Q3 2018 a new Permian West Texas Intermediate (WTI) crude oil futures contract with physical delivery in Houston, providing traders with direct access to Houston prices.

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OPEC producers key to world supply through to 2040

Wood Mackenzie sees OPEC maintaining its role as a key oil supplier through to 2040, although output from non-OPEC producers will help to ensure adequate supply in the years to 2030.

In its Macro Oils Long-Term Outlook H1 2018, Wood Mackenzie said it expects the US Lower 48 to enjoy continued growth through the medium term, with its crude and condensate production reaching a plateau of more than 11 million bbl/day in the mid to late-2020s. Once the US plateaus, total non-OPEC liquids production will lose its growth momentum and begin to decline post-2030.

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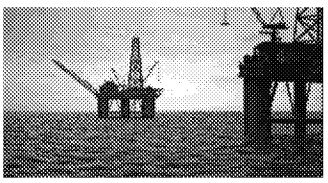
BOEM offering 78 million acres in Gulf of Mexico Lease Sale 251



US Deputy Secretary of the Interior **David Bernhardt** has announced that the Bureau of Ocean Energy Management (BOEM) will offer approximately 78 million acres offshore Texas, Louisiana, Mississippi, Alabama, and Florida for oil and gas exploration and development. The regionwide lease sale, scheduled for 15 August, includes all available unleased areas in federal waters of the Gulf of Mexico.

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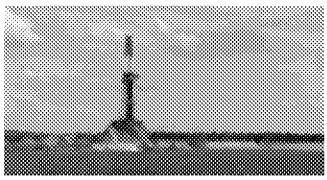
GTI leading tests on hydraulic fracturing efficiency in Permian Basin



Research, development and training firm **Gas Technology Institute** (GTI) is leading a program on hydraulic fracturing test sites (HFTS) in the Permian Basin, bringing together government and industry to improve recovery, continue enhancing environmentally responsible methods of optimizing production and lowering costs in the Midland and Delaware Basins.

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Tendeka completes field trial of sand control system in Permian Basin

TENDEKA

To improve and control flow in water injection wells, **Tendeka** has completed a field trial with a major operator for its sand control technology, Cascade³. The well screen and flow control completion system uses intrinsic check-valves built into the lower completion to prevent sand production caused by adverse flow conditions, such as back-flow, cross-flow and water-hammer, during shut-ins. The tool features a high-density array of non-return valves to allow for high injection rates with low back pressure.

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BSEE issues 2017 BOP systems safety report

BSEE

The US Bureau of Safety and Environmental Enforcement's (BSEE) SafeOCS program, chartered to facilitate confidential data sharing about industry safety systems, released its 2017 Annual Report Blowout Prevention System Safety on 13 July. The report analyzes failure data and notifications, as mandated by BSEE's well control regulations, and information such as operational impact, failure causes and possible data improvement opportunities.

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Transocean 712 semi receives 13-well contract in UK North Sea

Transocean has announced that the midwater semisubmersible Transocean 712 was awarded a 13-well contract (approximately 580 days) commencing in March 2019 in the UK North Sea with **ConocoPhillips**. The estimated firm contract backlog is approximately $75 million. Additionally, the contract includes a one-well option. The rig had been working in the UK North Sea under a contract with **Fairfield Energy** that ended in June, according to Transocean's April 2018 rig fleet status report.

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China's upstream industry to shift focus to domestic natural gas to meet cleaner energy demand

Steep production declines from aging oil fields and capital spending cuts have directly impacted China's oil production. Against the backdrop, the new guidelines unveiled by the government will break the dominance of state-owned oil companies and force the country's upstream industry to shift focus to domestic natural gas, according to **GlobalData**.

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- **31 Oct 2018:** Report from IADC Contracts & Risk Management Conference, IADC Critical Issues Latin America Conference and IADC Well Control Europe Conference
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Message

From: John Di Stasio [John@lppc.org]
Sent: 8/23/2017 3:54:25 PM
To: Stephen Fotis [scf@vnf.com]
CC: Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]; Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]; Janet Anderson [jma@vnf.com]; Citta, Joe [jlcitta@nppd.com]
Subject: Re: LPPC Follow-up

I certainly agree. Thank you both for taking the time.

John

John Di Stasio
President, Large Public Power Council
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Ex. 6 office
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On Aug 23, 2017, at 10:10 AM, Stephen Fotis <scf@vnf.com> wrote:

> Mandy and Brittany,
> I want to thank both of you for making time on Monday to meet with John Di Stasio, Janet Anderson, and me regarding the Large Public Power Counsel (LPPC). We believe that LPPC can be a valuable resource for you and EPA in providing useful policy and technical guidance on key environmental regulatory issues. As discussed during our meeting, our mission is not to rehash past legal or policy issues, but rather to work collaboratively with you and your staff to ensure the effectiveness and workability of the regulatory proposals that the agency is advancing. To that end, I will be sending shortly to you by a separate email a short briefing paper on some of the air regulatory barriers to the electrification of the transportation sector under the Clean Air Act. We hope that this may be one area where we might be able to work together with you and your staff. In addition, we would like to get Tuesday, October 24 on your calendar. As we discussed during our meeting, the LPPC Environmental Task Force is meeting in WDC on this day and we would love for you (or other appropriate EPA person) to address the task force. We can be very flexible on timing as well as what you'd like to discuss – although I suspect a discussion on the CPP replacement rule may turn out to be very timely.
> Best regards,
> Stephen
>
> Stephen Fotis
> Partner
> Van Ness Feldman LLP
> scf@vnf.com
> Ex. 6

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Message

From: Lee Fuller [lfuller@ipaa.org]
Sent: 7/11/2017 5:48:36 PM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]
Subject: Use of Oil and Natural Gas Production Control Techniques Guidelines for 2008 Ozone NAAQS SIPs

Brittany, Mandy,

When we met with Administrator Pruitt, one of the issues that we raised related to the October 2016 Control Techniques Guidelines (CTG) for existing sources of oil and natural gas production facilities in ozone nonattainment areas. These CTG are existing source requirements that should be based on a Reasonably Available Control Technology (RACT) determination but were essentially replicating the Subparts OOOO and OOOOa Best System of Emissions Reductions (BSER) New Source Performance Standards (NSPS) requirements. Because the Subparts OOOO and OOOOa NSPS requirements are in the process of being reconsidered, IPAA recommended that EPA consider suspending or withdrawing the CTG until the issues related to Subparts OOOO and OOOOa are resolved.

Recent state actions involving State Implementation Plans (SIPs) utilizing the CTG make a decision by EPA more compelling.

In Colorado, the state is developing a SIP to meet the 2008 Ozone National Ambient Air Quality Standard (NAAQS). One area is being classified as moderate and thereby requires the implementation of Reasonably Available Control Measures (RACM). Because RACM mandates that all CTG must be included as RACM, the October 2016 oil and natural gas production facilities CTG is included in this SIP development. I have attached some materials submitted to the state regulatory agency raising concerns about the inclusion of the CTG.

Similar activity is underway in Pennsylvania although I do not have details on it. However, because Pennsylvania is part of the Ozone Transport Region (OTR), I believe it must use RACM statewide and the October 2016 CTG would now become a part of the RACM pool of regulations.

Please let me know if I can provide additional information.

Thanks,

Lee Fuller

Message

From: Lee Fuller [lfuller@ipaa.org]
Sent: 7/25/2017 4:57:23 PM
To: Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]; Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
CC: Samantha McDonald [SMcDonald@ipaa.org]; Susan Ginsberg [sginsberg@ipaa.org]
Subject: EPA IG Evaluation of EPA Methane Emissions Estimates
Attachments: Comments on EPA IG Review of EPA Methane Emissions Estimates 07-20-2017.pdf

Mandy, Brittany,

As you know, the EPA IG Office announced that it would be reviewing EPA methane emissions related to the oil and natural gas sector. The announcement seemed to focus on issues of underestimation of emissions. IPAA believes that EPA has overestimated emissions and submitted the attached document to the IG Office to identify those concerns.

Thanks,

Lee Fuller

INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA

July 20, 2017

Special Agent Clay M. Brown
Desk Officer for the EPA, OIG Hotline
US EPA, OIG, Office of Investigations HQ
1200 Pennsylvania Ave NW
Mailcode 2431T
Washington, DC 20460

Evaluation of EPA's Estimation of Methane Emissions From the Oil and Natural Gas Production Sector

In June 2017, the Environmental Protection Agency's (EPA) Office of Inspector General (OIG) announced that it intended to initiate a preliminary investigation regarding EPA's estimation of methane emissions from the oil and natural gas production sector. More precisely, it stated:

> The specific objectives for this evaluation are to determine: (1) how the EPA estimates methane emissions from the oil and natural gas production sector, including the extent to which the EPA has used the results of 2013 and 2014 emission studies conducted jointly by the Environmental Defense Fund and the University of Texas - Austin to estimate those emissions; and (2) whether concerns about technical or other problems with the Environmental Defense Fund and University of Texas - Austin studies were identified or brought to the EPA's attention, and how the EPA addressed and resolved any such concerns.

Some press coverage of this action suggests that it may be driven by a complaint filed by an extreme environmental advocacy group – NC WARN – that had earlier filed a complaint accusing David Allen, the lead investigator in the Environmental Defense Fund (EDF)/University of Texas – Austin (UT) methane emissions studies, of faulty work. OIG declined to pursue the NC WARN allegations in 2016, but it now has opened this investigation related to the same issues.

These comments are filed on behalf of the Independent Petroleum Association of America (IPAA). IPAA represents the thousands of independent oil and natural gas explorers and producers, as well as the service and supply industries that support their efforts, that develop American oil and natural gas. Independent producers drill about 90 percent of American oil and gas wells, produce 54 percent of American oil and produce 85 percent of American natural gas.

IPAA's member companies are significantly affected by the methane emissions and Volatile Organic Compound (VOC) regulations and Control Techniques Guidelines (CTG) that EPA has promulgated over the past several years. A key part of the debate over these regulations relates to their justification – justification that is based on EPA estimates of methane emissions. Throughout this debate, IPAA has been concerned that EPA has **overestimated** methane and VOC emissions. These overestimations then become critical to the justification of EPA's regulations; several estimation actions occurred at key times in the regulatory process when the

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Obama Administration sought to move aggressively to expand federal regulation of oil and natural gas production.

More specifically, these comments will address several key points:

- Efforts by Keep It in the Ground environmental activists to portray natural gas development and use as adverse to the environment have been proven false.
- Emerging analyses of oil and natural gas production methane emissions call into question EPA's development of it methane emissions estimates.
- EPA failed in its creation of regulations to develop the necessary emissions information required by the Clean Air Act to properly regulate.
- EPA inappropriately recalculated its emission estimates to increase oil and natural gas production estimates to justify regulations created as part of the Obama Administration Climate Action Plan
- EPA used specious environmental activist studies to alter its proposed regulations without any analysis of the studies' validity.
- Recent studies are demonstrating that EPA revised estimates are overstating methane emissions and call into question the basis for the Obama Administration rush to impose regulations.
- Fundamental questions regarding the Obama Administration actions to complete unjustified regulations and manipulate emissions estimates are pertinent for an OIG review.

Consequently, IPAA believes that the EPA OIG needs to consider these issues in the context of its review of the EPA methane emissions process.

Some context to the nature of the methane emissions debate may help understand how it has evolved. Environmental activists have been attacking fossil energy for decades. Earlier, most of that attack challenged the use of coal but viewed natural gas (95 percent methane on average) as a positive alternative. However, that view changed when the development of shale gas demonstrated that natural gas was no longer a "bridge" fuel to the environmentalists' panacea of renewable energy. Consequently, environmentalists shifted their fossil energy attack to include arguing that unburned methane emissions from the natural gas value chain – production through processing through transportation through use – was worse than coal. The environmental activists embraced a series of specious studies on methane emissions to bolster this argument. When this approach failed, the attack shifted to explicit climate based allegations regarding the role of methane in the amalgamated greenhouse gas (GHG) emissions pool. Both of these issues need to be addressed.

Coal Versus Natural Gas

The natural gas versus coal arguments were characterized by assessments of whether natural gas methane emissions exceeded 3 percent of natural gas' total volume across the value chain. If higher, natural gas methane would have a greater GHG impact than combustion of coal. Two of the most visible proponents of the natural gas is worse than coal theme were Cornell University professors Robert Howarth and Anthony Ingraffea. Characteristic of their allegations were studies that postulated methane emissions from natural gas production in the range of 3.6 to 7.9

percent of production. Embraced by the radical environmental movement, these allegations were widely reported and used to oppose American natural gas development. But, they are wrong.

Following is a rundown of the most prominent scientific evidence showing that methane leakage rates from natural gas production are low and well below the threshold for natural gas to maintain its climate benefits.

- **Allen et al. (1.5 percent):** This landmark 2013 EDF/University of Texas study was the first to measure actual emissions, and it found emissions "nearly 50 times lower than previously estimated by the Environmental Protection Agency," confirming beyond a shadow of a doubt natural gas' climate benefits over coal. UT and EDF followed up with two more studies, which also found very low methane leakage rates. These studies concluded that methane emissions from the upstream portion of the supply chain are only 0.38 percent of production. That's about 10 percent lower than what they found in their 2013 study.
- **Littlefield et al. (1.65 percent):** This 2017 U.S. Department of Energy National Energy Technology Laboratory study used data from Zavala-Araiza et al. (see below) to synthesize emissions on a national scale. But even though the study finds low emissions, it is worth pointing out that it likely overestimates the leakage rate based to the fact that it extrapolates so-called "super-emitter" data from Zavala-Araiza et al. on a national scale. A recent NOAA study also reveals the "super-emitter" data Zavala-Araiza et al. relied on air measurements likely collected during episodic maintenance events, which skewed emissions higher than they typically would be.
- **Lyon et al (1.2 percent):** Using "top down" measurements from aircraft over the Barnett Shale in Texas, this 2015 EDF/University of Houston study found very low leakage rates, despite the fact that a limitation of "top down" studies is the fact that methane detected can come from other sources such as agriculture and natural seeps.
- **Marchese et al (1.6 percent):** This 2015 EDF/Colorado State University study took direct measurements from 114 gathering stations and 16 processing plants across 13 states. Using these measurements, along with EPA data from other segments of the natural gas supply chain, the study found an overall leakage rate that EDF's Mark Brownstein noted is a "well below what most scientists say is advantageous for the climate."
- **Peischl et al (1.1 percent):** This 2015 Colorado University-Boulder/NOAA study used "top-down" measurements from five flights from a NOAA research aircraft over areas that collectively represent half of the U.S.'s total shale gas production (Haynesville, Fayetteville and portions of Marcellus shale). The report goes notes: "[T]he regions investigated in this work represented over half of the U.S. shale gas production in 2013, and we find generally lower loss rates than those reported in earlier studies of regions that made smaller contributions to total production. Hence, the national average CH4 loss rate from shale gas production may be lower than values extrapolated from the earlier studies."
- **Zavala-Araiza et al. (1.5 percent):** This 2015 EDF study analyzes data from 12 previous EDF Barnett Shale papers and finds low methane emissions despite being, as the report puts it, "biased toward high-emitters." Notably, a recent NOAA study reveals the

"super-emitter" data Zavala-Araiza et al. relied on air measurements likely collected during episodic maintenance events, which skewed emissions higher than they typically would be. As a result, these "peak" emissions data were inappropriately used to calculate a normal emissions profile.

- **Zimmerle et al. (1.3 percent):** This 2015 EDF/Colorado State University study finds low overall natural gas system methane leakage rates based on 2,292 onsite measurements from transmission and storage facilities along with additional emissions data from 677 facilities and activity data from 922 facilities.

Even the Intergovernmental Panel on Climate Change's (IPCC) — not exactly an industry or "climate denier" source — states in its latest climate assessment that numerous studies show methane leakage rates are very low,

> "While some studies estimate that around 5% of the produced gas escapes in the supply chain, other analyses estimate emissions as low as 1% (Stephenson et al., 2011; Howarth et al.,2011; Cathles et al., 2012). Central emission estimates of recent analyses are 2%–3% (+/-1%) of the gas produced, where the emissions from conventional and unconventional gas are comparable."

The IPCC also clarifies that even "[t]aking into account revised estimates for fugitive emissions, recent lifecycle assessments indicate that specific GHG emission are reduced by one half" as more power plants are powered by natural gas.

While more attention will be given to it later, even EPA's 2017 Greenhouse Gas Inventory (GHGI) shows production emissions levels at 1.2 percent. Despite numerous flaws — including extrapolation of emissions data from larger facilities onto smaller facilities, potentially incorrect assumptions about pneumatic controller emissions, and methodology based on flawed so-called "super-emitter" assumptions — EPA's latest methane emissions data show very low methane leakage rates.

Oil and Natural Gas Production Issues and the Climate Debate

The methane component of the GHGI is about 9-10 percent. Roughly one-third is related to oil and natural gas systems with approximately equal amounts for agriculture and landfills. Of the oil and natural gas systems component, about one-third is related to production operation – the 1.2 percent in the 2017 EPA GHGI report. Over the past 8 years, the determination of these emissions has been a key aspect of the regulatory agenda that has driven EPA's actions.

In 2009, environmentalists secured a consent decree compelling EPA to determine if it needed to revise New Source Performance Standards (NSPS) for oil and natural gas production facilities. EPA's actions in response to this consent decree raise questions that continue throughout the issue of methane emissions. When EPA develops a NSPS, the Clean Air Act (CAA) requires EPA to use "the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated". It creates four components that must be assessed and balanced – cost, nonair quality health and environmental impact, energy requirements and adequate demonstration. Inherent in assessing these components to determine the best system of emission reduction (BSER) is a high-quality understanding of emissions from the source category.

EPA did not choose to develop its own comprehensive source of emissions information – one that would understand differences in emissions from different types of formations, from different sized facilities. Rather, EPA used available information on emissions from a variety of public sources – data that was never developed for the purpose of regulation.

In the creation of EPA's NSPS – Subpart OOOO – EPA largely relied on requiring technologies that had been used as part of it voluntary Gas STAR program. While these technologies largely qualified as BSER, the scope of the NSPS included operations where those technologies were inappropriate in part because EPA had no data to understand the consequences of its actions. And, the fundamental question of whether EPA should have collected its own data was ignored.

In 2013 and 2014, EDF-UT studies led by David Allen presented information that should have alerted EPA to the need to develop a far more robust understanding of methane emissions as the Obama Administration moved to embrace its Climate Action Plan (CAP). A significant aspect of the Allen studies was that they collected data at the facility rather than interpolate it from offsite measurements. The studies revealed several key aspects of the methane emissions profile. First, the Allen studies confirmed that methane emissions from production operations were low. They were consistent with EPA's overall low estimates. Second, while the initial Allen study showed a larger component of emissions from pneumatic controllers, the later study showed that a small fraction of equipment components was producing 90 percent of emissions. This concept of "fat tails" is significant to designing a regulatory program. Additionally, because pneumatic controllers were included in the Subpart OOOO regulations, these emissions would decline as the new wells replaced the inevitably declining population of existing wells.

However, despite these studies presenting an emerging change to the perception of oil and natural gas production emissions, they occur in the midst of political events that influence future EPA decisions on methane emissions. After the Obama Administration announced its intent to create and implement its CAP, the vested interest of the Obama Administration related to targeting GHG emissions. Concurrently, the activist environmental lobby expanded its targeting of methane emitting facilities – most notable oil and natural gas facilities in their value chain.

An important aspect of this effort was the January 2015 Obama Administration announcement of the scope of its CAP for methane emissions. At its heart was a new goal to cut methane emissions from the oil and gas sector by 40 – 45 percent from 2012 levels by 2025. For the oil and natural gas production industry, the announcement identified several key initiatives. First, EPA indicated that it would "…issue a proposed rule in the summer of 2015 and a final rule will follow in 2016." It would "…consider a range of common-sense approaches that can reduce emissions from the sources discussed in the agency's Oil and Gas White Papers, including oil well completions, pneumatic pumps, and leaks from well sites, gathering and boosting stations, and compressor stations." Second, EPA would "…develop new guidelines to assist states in reducing ozone-forming pollutants from existing oil and gas systems in areas that do not meet the ozone health standard and in states in the Ozone Transport Region." Third, EPA would "… explore potential regulatory opportunities for applying remote sensing technologies and other innovations in measurement and monitoring technology to further improve the identification and quantification of emissions and improve the overall accuracy and transparency of reported data cost-effectively." Fourth, the Bureau of Land Management (BLM) would "…update decades-old standards to reduce wasteful venting, flaring, and leaks of natural gas, which is primarily methane, from oil and gas wells."

These initiatives theoretically hinged on the need to meet a specific 40-45 percent reduction target. For the oil and natural gas production segment of the industry, the Gas STAR program and the 2012 Subpart OOOO regulations were producing the targeted reduction without additional regulation. Data showed that – throughout the extensive expansion of American natural gas production resulting from shale gas development – emissions were falling. Ignoring the clear history of falling emissions with increased production, the Obama Administration concluded that expanded production would increase future emissions. While such an argument might have bearing in other industry segments, for oil and natural gas production the inherent decline that occurs in all wells means that maintaining and growing production requires new wells to replace old ones. Therefore, in the time window of 2012 to 2025, the pool of American production wells would be dominated by wells drilled with the new technologies. Consequently, justifying the expanded regulatory agenda required the Obama Administration to change emissions projections.

These issues were raised regularly with EPA and Obama Administration officials and the apparent result was an EPA recalculation of the GHGI. After releasing data that consistently show methane emissions plummeting as natural gas production soars, EPA upwardly revised methane emission data for natural gas and petroleum systems all the way back to 1990 in its final 2016 GHGI. These upward revisions came as the agency was trying to justify new regulations on methane – based on the idea that methane emissions from the oil and natural gas sector are "higher than previously thought."

EPA's revisionist data indicated methane emissions from natural gas systems declined just 0.68 percent since 2005 rather than 11 percent, as the 2015 GHGI indicated. The latest GHGI also shows a 29 percent increase in methane emissions from petroleum systems since 2005, just one year after agency data indicated a modest 8 percent increase since 2005. Overall, EPA's revision of data over a 23-year span resulted in a total of 773 million metric tons CO2 eq. of previously unreported natural gas and petroleum systems methane emissions that simply were not there a year before.

Sound a little sketchy? The American Petroleum Institute (API) certainly thought so, as it made the following comments:

> "At a time when EPA is looking to justify these costly new regulations on methane from the oil and gas industry," Kyle Isakower, API vice president of regulatory and economic policy, said, "they happen to issue these new methane inventory figures that not only increase the overall emissions estimates, but they also reduce or eliminate the downward trend that we've seen in previous inventories."
>
> Howard Feldman, API senior director of regulatory and scientific affairs, added, "We believe EPA is putting the public posturing right now above the science and data."

A close look at the methodology used by EPA confirms API's skepticism. In fact, the methods EPA used to calculate its new data were just as flawed as the timing of its release was suspicious.

Here are the facts on how EPA's new methods yielded a 27 percent upward revisions of methane emissions from natural gas and petroleum systems.

Fact # 1: EPA assumed emissions from smaller sources were the same as larger sources

For the first time, EPA incorporated new equation inputs collected from Subpart W of its greenhouse gas reporting program (GHGRP) into its GHGI estimates. This new data – which EPA deferred final reporting until late 2015 – includes the total number of emission sources at each reporting facility and the average estimated time each of the emission sources was operational at each reporting facility in each calendar year between 2011 and 2014.

It is essential to understand that smaller facilities do not report to the GHGRP. But, that did not keep EPA from simply assuming that these much smaller facilities have similar emissions rates as larger ones. So, EPA basically extrapolated data from large facilities reported on subpart W of the GHGRP onto smaller facilities for which it did not have solid data. This is obviously not a sound method to calculate emissions, resulting in a significant overestimation of emissions.

A memo released by EPA explaining its use of subpart W of the GHGRP even notes that the data are not appropriate for estimating comprehensive national-level emissions:

> "… As discussed in the introduction to this memorandum, subpart W provides substantial new data on oil and gas GHG-emitting activities in the U.S., but does not represent total national-level emissions due to the reporting threshold…"

This method is all-the-more significant considering these smaller facilities account for 70 percent of producing wells nationwide, according to EPA:

> "Subpart W reports reflect activities at facilities exceeding the emission threshold. While EPA estimates that subpart W reporting covers the majority of national oil and gas production, the reporting facilities represent approximately 30% of producing wells in the U.S., located within large facilities that exceed the emissions threshold for reporting."
>
> "In its analysis for this memo, the EPA developed activity estimates using an assumption that the subpart W data set also represents 32% of other national equipment counts (in other words, that the ratio of each type of equipment-per-wellhead is the same for nonreporting wells as it is for reporting wells) in the onshore production segment."

So, EPA assumed that smaller facilities – which account for more than two-thirds of national equipment counts – have a similar emissions profile to larger facilities. This is simply not the case.

For instance, this method of scaling emissions reported by larger facilities onto smaller facilities that do not report to the GHGRP has resulted methane emissions from pneumatic controllers to more than double in the 2016 GHGI compared to the 2015 GHGI for both natural gas and petroleum systems.

The italicized text in the chart below, taken from EPA's memo on its revised methodology, shows what EPA reported for natural gas system pneumatic controllers in 2015, while the bolded text shows the upward revisions for 2016.

Table 3-53: CH_4 Emissions from Pneumatic Controllers (MMT CO_2 Eq.)

Source	1990	2005	2010	2013	2014
All	**13.9**	**27.0**	**31.2**	**31.5**	**27.6**
High bleed	+	12.1	10.9	4.8	3.3
Low bleed	8.4	0.6	1.1	0.6	1.0
Intermittent bleed	5.5	14.3	19.2	26.0	23.3
Previous-All	*13.4*	*20.2*	*16.2*	*13.5*	*NA*

+ Does not exceed 0.05 MMT CO_2 Eq.
NA – Not applicable
Note: Values in *italics* are from the previous Inventory.

The chart below shows similar revisions for petroleum systems.

Table 3-42: CH_4 Emissions from Pneumatic Controllers (MMT CO_2 Eq.)

Source	1990	2005	2010	2013	2014
All	**19.0**	**30.2**	**33.2**	**37.7**	**39.2**
High bleed	17.8	17.5	12.6	5.5	4.7
Low bleed	1.2	1.8	2.0	1.4	1.2
Intermittent bleed	+	10.9	18.6	30.9	33.3
Previous-All	*12.2*	*10.1*	*10.8*	*11.9*	*NA*
Previous-High bleed	*9.5*	*7.8*	*8.4*	*9.2*	*NA*
Previous-Low bleed	*2.8*	*2.3*	*2.4*	*2.7*	*NA*

+ Does not exceed 0.05 MMT CO_2 Eq.
NA – Not applicable
Note: Values in *italics* are from the previous Inventory.

But a recent Oklahoma Independent Petroleum Association study refutes the argument that pneumatic controllers can be considered equally across all wells sites, large or small. The study found that smaller well site pneumatic controllers have significantly lower emissions, bolstering the fact that EPA is improperly scaling up emissions for small facilities.

EPA acknowledged that its method of extrapolating data from larger facilities onto smaller facilities is the primary driver of its upward methane emission data, which are driven by production-related emissions for both oil and natural gas.

> "… due to the activity data revision alone, production segment emissions greatly increase compared to previous estimates."

Fact #2: Gathering and boosting station data miscategorized, inflated

One of the more eye-popping revisions from EPA's 2016 GHG Inventory is the category of methane emissions from natural gas field production, which more than doubled from previous estimates for the years 2011 through 2014.

This chart shows what EPA reported in its 2015 inventory:

Table 3-44: CH_4 Emissions from Natural Gas Systems (MMT CO_2 Eq.)[a]

Stage	1990	2005	2009	2010	2011	2012	2013
Field Production	59.5	75.5	62.0	56.5	51.3	49.7	47.0
Processing	21.3	16.4	19.2	17.9	21.3	22.3	22.7
Transmission and Storage	58.6	49.1	52.7	51.6	53.9	51.8	54.4
Distribution	39.8	35.4	34.1	33.5	32.9	30.7	33.3
Total	**179.1**	**176.3**	**168.0**	**159.6**	**159.3**	**154.4**	**157.4**

Note: Emissions values are presented in CO_2 equivalent mass units using IPCC AR4 GWP values.
[a] These values represent CH_4 emitted to the atmosphere. CH_4 that is captured, flared, or otherwise controlled (and not emitted to the atmosphere) has been calculated and removed from emission totals.
Note: Totals may not sum due to independent rounding.

And this chart shows the drastic revisions for 2016:

Table 3-46: CH_4 Emissions from Natural Gas Systems (MMT CO_2 Eq.)[a]

Stage	1990	2005	2010	2011	2012	2013	2014
Field Production	83.4	108.1	108.3	108.8	111.1	110.7	109.0
Processing	21.3	16.4	17.9	21.3	22.3	22.6	24.0
Transmission and Storage	58.6	30.7	27.5	28.8	27.9	30.8	32.1
Distribution	43.5	22.1	12.5	11.2	11.4	11.5	11.1
Total	206.8	177.3	166.2	170.1	172.6	175.6	176.1

[a] These values represent CH_4 emitted to the atmosphere. CH_4 that is captured, flared, or otherwise controlled (and not emitted to the atmosphere) has been calculated and removed from emission totals.
Note: Totals may not sum due to independent rounding.

Inclusion of projected emissions from gathering and boosting stations — which clearly are not production activities – appears to be the biggest reason for the spike in field production emissions, which now account for 62 percent of total methane emissions from natural gas systems, according to EPA.

It is also noteworthy that, although gathering and boosting emissions were *apparently* included in previous GHG inventory's natural gas production totals, they were not listed in a separate table until the latest inventory, as the following table from the 2016 GHG Inventory shows.

Table 3-54: CH_4 Emissions from Gathering and Boosting (MMT CO_2 Eq.)

Source	1990	2005	2010	2013	2014
Gathering and Boosting Stations	23.9	27.7	35.8	43.3	46.6

Though there is no frame of reference, considering EPA did not separately list gathering and boosting emissions in previous inventories, it is clear that emissions from these sources spiked dramatically considering *total* 2013 field production methane emissions were 47 mmt CO2 eq. in the 2015 GHG Inventory and 2013 gathering and boosting methane emissions *alone* are 43.3 mmt CO2 eq. in the 2016 GHG Inventory.

The upward revisions are also more than a little suspect, considering gathering and boosting emissions were not included in GHGRP reporting used for the 2016 GHGI (they have been added this year and will be reported for the first time in 2017). That said, in the absence of actual emissions data, EPA appears to have made the above estimates based largely on a pair of EDF

studies (Marchese et al. and Mitchell et al.), according to a memo on EPA's revised methodology, as well as the following excerpt from the 2015 GHG Inventory:

> "Relevant ongoing studies are collecting new information related to natural gas system emissions (e.g. Environmental Defense Fund (EDF) study series data on natural gas systems, including new measurements on gathering and boosting, processing, transmission and storage, and distribution)."

Though EPA's extrapolation of GHGRP data collected from large facilities onto smaller facilities is far from sound, it is far better methodology than extrapolating the results from a pair of EDF studies to estimate national emissions for gathering lines and boosting stations in the absence of solid data.

Fact #3: EPA upwardly revised emissions based, in part, on EDF studies that showed low emission rates

Then EPA Administrator Gina McCarthy stated that EPA, at least in part, relied on data compiled by the EDF studies to drive its methane emission revisions and regulatory policies.

> "… Over the past year, EPA's Greenhouse Gas Reporting Program, along with studies from groups like the Environmental Defense Fund and industry and researchers at Colorado State University, Carnegie Mellon, the University of Texas, Washington State University, and others have provided significant new data on methane emitted by existing operations in the oil and gas sector.
>
> "The new data show that methane emissions are substantially higher than we previously understood. So, it's time to take a closer look at regulating existing sources of methane emissions."

Morning Consult also recently reported,

> "McCarthy cited the EDF-coordinated series of studies as a motivating factor on Tuesday at a Christian Science Monitor Breakfast event.
>
> 'It really gave us a signal that we need to do more,' McCarthy said. 'There clearly are opportunities here for further reductions. The information request is really a requirement for oil and gas companies to do specific testing that will allow us to understand the emissions better.'"

EDF has been pushing rhetoric that methane emissions are "higher than previously estimated" and "a big problem" for months. But EDF's mantra does not change the most important fact: its own studies have found low methane leakage rates between 1.2 and 1.9 percent, which is well below the 3.2 percent of production rate EDF and the scientific community agree is the benchmark for natural gas retaining its environmental benefits.

As Alex Trembath of the environmental group, The Breakthrough Institute, recently explained, data on methane emissions show "that methane leakage is a minor factor determining the benefit of a coal-to-gas transition and that methane leakage levels are well within acceptable ranges."

It was not that long ago that EDF touted one of its reports finding low leakage rates as "good news":

> "This is good news in that it shows emissions can be controlled," said Eric Pooley, EDF senior vice president, referring to a 2013 EDF study that found low leakage rates. "… Industry can get it right."

But EDF suddenly changed its tune, pushing claims that regulations were absolutely necessary based on estimates being higher than previously believed.

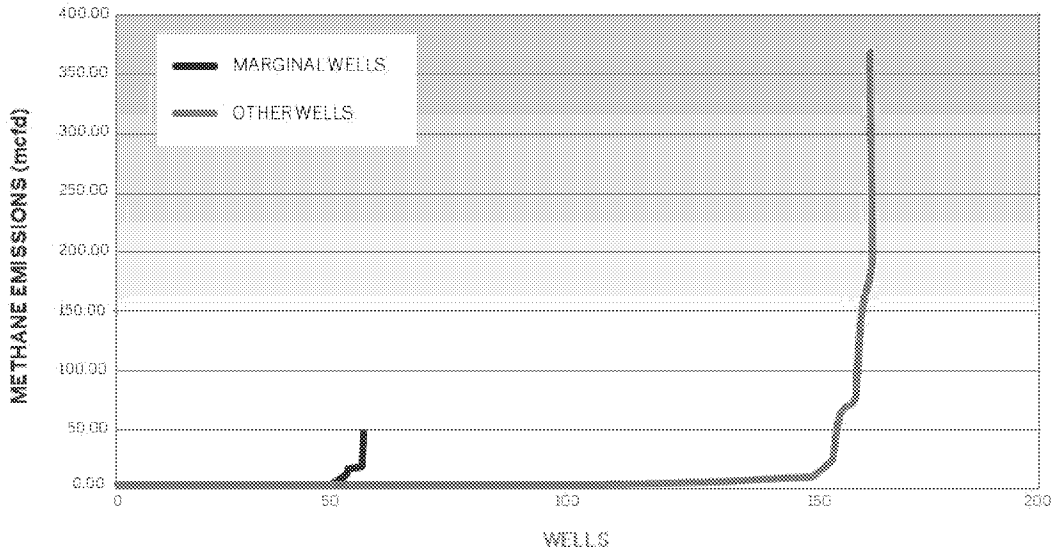
While these revisions to the GHGI were being created to apparently substantiate the need for higher methane emissions from the oil and natural gas production industry, EPA's actions related to its proposed Subpart OOOOa NSPS are more troubling because they create clear regulatory consequences. At the heart of this action is EPA's use of a highly specious EDF report on emissions from low producing oil and natural gas wells.

When EPA proposed Subpart OOOOa, it included an exclusion for low producing oil wells (less than 15 barrels/day) and natural gas wells (less than 90 mcfd) from its fugitive emissions program. This exclusion was significant because the costs of the EPA fugitive emissions program are large. While it may be a cost that can be absorbed for a well producing 5,000 mcfd, as new, large hydraulically fractured natural gas wells can, the cost it imposes on the average low producing natural gas well – wells that produce about 22 mcfd – is not sustainable. However, when the regulation was finalized, EPA removed the low producing well exclusion. The consequence of this change is three-fold. First, it creates a lifetime burden on the well that will make it uneconomic far sooner in its lifetime. Second, because the NSPS applies to new and modified sources, the refracturing of a well brings it under the NSPS requirements. As a result, the regulation inhibits refracturing of small wells because the costly fugitive emissions program would then apply. Third, most low producing wells are operated by small businesses and many are wells that were purchased from larger companies that sold the wells to capitalize other projects. The fugitive emissions requirements will make the operating costs too high to justify their purchase resulting in the loss of this U.S. production.

When EPA sought comments on the Subpart OOOOa proposal, industry stakeholders supported the exclusion that EPA proposed. However, when Subpart OOOOa was finalized, EPA had deleted the low producing well exclusion. EPA indicated that it removed the exclusion based on an EDF study presenting low producing wells as "super-emitters". The EDF study was purposely created to distort the role of low producing wells regarding methane emissions.

Initially, it is important to understand that the EDF study used data from a number of different studies to create its arguments. All of the underlying studies generated their data by driving vehicles with samplers downwind of production sites, hunting for methane plumes. None of them used samples taken on the production site. This creates two issues. First, it measures everything emitted at the site – fugitive emissions and permitted vents. Second, the data are collected over minutes – maybe over an hour – but not over a day. The data in the study are presented as if they were daily emissions but the studies merely scale up hourly estimates. Consequently, an emission that might occur for several hours, but not the full day, would be overstated.

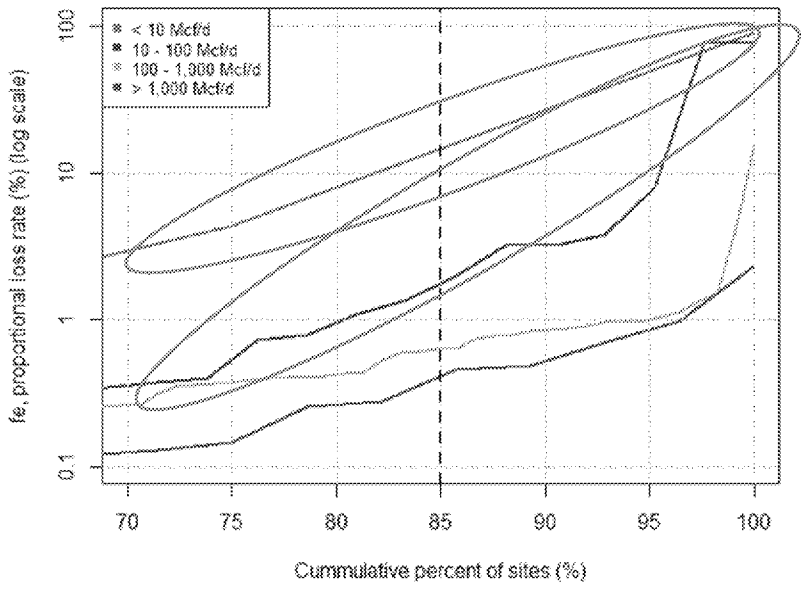
Before turning further to describe the submitted study, it is useful to look at the same data using a direct graph of emissions. In this graph, marginal wells are those with production volumes of 90 mcfd or less.



This graph is consistent with information from other studies showing that a small portion of wells have an emission profile for some reason with high emissions and most wells have really low emissions. Importantly, it also clearly shows that marginal wells – low producing wells in the context of the regulation – have far smaller emissions. But, since this graph is using the same data as the study, it could also be overstating emissions because of scaling short term emissions to a daily amount.

With this background, turning to the presentation of the same material in the study demonstrates how it was manipulated.

Below is the graphic used to present the data. It would suggest that the worst emitting operations – the "super-emitters" – are the smallest wells (the orange line and the blue line, circled in green). Having directly plotted this data, the obvious issue is how such a result can occur.



It is a busy and confusing graph – it's intended to be. The study uses data analysis tricks to create the appearance that marginal wells are "super-emitters".

First, it shows emissions as a percentage of production rather than actual emissions. Thus, one mcf emitted out of ten mcf produced is 10 percent, but 50 mcf emitted out of 1000 mcf produced is 5 percent. As a result, it skews the perception of the data to imply that low producing wells are large emitters when they are not.

Second, its production volumes are really sales volumes, not the amount extracted from the wellhead. Consequently, a "proportional loss rate" of 50 percent would be the calculated loss divided by the volume sold. If the percentage of loss were calculated based on extracted volumes, the 50 percent "proportional loss rate" would drop to 33 percent because the loss would be added to the sales volume to obtain the extracted volume.

Third, it only shows data from the 70th percentile of information. This excludes all of the virtually zero emissions that dominate the data.

Fourth, it uses a logarithmic scale to present the data. One of the reasons to use logarithmic scales is to flatten curves to make them look more like straight lines.

These observations can be made without conducting an intense investigation of the study. The manipulations are obviously intended to contort data to create a specific result. Yet, with all the investigative power at EPA, with all of the research work EPA has conducted, EPA took this contrived study at face value to make its determination to remove the low producing well exclusion in the Subpart OOOOa regulations.

Since these actions occurred, more recently published data are beginning to demonstrate that EPA's actions during 2015 and 2016 are misdirected.

A new EPA study released in May 2017 indicates the agency may be greatly exaggerating oil and natural gas system methane emissions. It was primarily funded by an EPA Regional Applied Research Effort (RARE) internal project grant issued during the Obama Administration.

By using a combination of extractive air sampling and remote optical gas imaging (OGI) tools to analyze 80 pneumatic control systems across eight well pads, the study found oil and gas methane emissions in Utah's Uinta Basin are "significantly lower" than previously thought.

In fact, EPA researchers found methane emissions from intermittent bleed devices were 97 percent lower than the standard emission factor for intermittent pneumatic control devices EPA uses for estimates in its GHGI. The researchers wrote,

> "The average IPC emission rate estimate of 0.32 scf/h was significantly lower than the GHG Inventory IPC emission factor of 13.5 scf/h per device."

This is relevant on a national scale considering the EPA's latest inventory reported 45 percent of oil and gas system methane emissions in 2015 were attributable to pneumatic controllers. The researchers acknowledge the significance of this finding by noting pneumatic devices are the "most significant sources of CH4 in ONG production field operations."

This report must be considered in the context of the faulty methodology issues described above involving the assumptions to calculate national oil and gas production segment pneumatic device counts described previously where EPA started extrapolating leakage rate data from larger

facilities that report to the GHGRP onto these smaller wells under the false assumption that smaller wells have similar equipment counts and emission profiles.

Since the purpose of the study was to "improve information on a variety of factors affecting well pad PC emission characterization," hopefully, the new data will be used by EPA to improve its methodology for calculating pneumatic controller emissions. As Western Energy Alliance's Ryan Streams said,

> "The Uinta Basin pneumatic controller study is the latest in a series that have consistently demonstrated emissions from this type of equipment are much lower than previous EPA estimates. We're pleased to see research supporting what industry has been suggesting for some time now.
>
> "We're hopeful that EPA will take this study along with the growing body of scientific evidence as an opportunity to revisit its emission factors for pneumatic controllers."

The EPA study also finds that emissions of volatile organic compounds (VOCs) are lower than previously believed, further confirming a 2016 report also found that VOC emissions were about half of previous estimates.

Additionally, in May 2017, a new peer-reviewed National Oceanic & Atmospheric Administration (NOAA) study also suggests emission estimates reported in a series of studies used to justify federal methane regulations may have been significantly exaggerated.

Those earlier studies garnered considerable media coverage based on conclusions that methane emissions from shale gas development were 50 percent higher than EPA estimates, due to so-called "super-emitters." But the new NOAA study finds that such research relied on air measurements likely collected during episodic maintenance events, which skewed emissions higher than they typically would be. As a result, these "peak" emissions data were inappropriately used to calculate a normal emissions profile.

This conclusion is based on the fact that aircraft measurements such as the ones taken for the earlier studies are typically collected around noon in order to get the best readings, according to the NOAA paper. This happens to be roughly the same time emissions from routine maintenance operations typically conducted in the late morning — such as manual liquids unloading — are at their maximum levels in the atmosphere, leading to anomalous emissions.

As the orange-tinted columns in the following chart from the NOAA study illustrate, these episodic emissions are substantial – and certainly not reflective of typical emissions. The orange column near the center of the chart shows actual emission leakage rate data collected during the study, while the orange column on the right shows those leakage rates when emissions from manual liquid unloading events are subtracted.

Table 1: Study area West-East comparison of natural gas (NG) infrastructure, CH_4 emissions, production normalized emission rates (PNER), and manual liquid unloading (MLU) events (active during the downwind transects). Ranges indicate 1σ uncertainty.

	Gas production [a] [MCF/d]	Active well count [a]	Gathering station count [a]	Transmission station count [a]	NG CH_4 emissions [b] [t CH_4/hr]	PNER [c] [%]	Active MLU events [d]	MLU CH_4 emissions [e] [t CH_4/hr]	PNER excl. MLU CH_4 emissions [f] [%]
West	1.6×10^9	3,520	84	1	21.5	1.7–2.0	15.8	7.0–10.6	0.8–1.4
East	0.8×10^9	1,910	41	8	5.7	0.8–1.5	2.6	1.1–1.7	0.5–1.2
W–E ratio	2.0	1.8	2.0	0.1	3.8	**1.3–2.3**	6.2	6.2	**1.1–1.5**

Notes: [a] Data from ref[23]; [b] Study area top-down CH_4 emission estimates (Figure 3, panel b, mean values) minus study area bottom-up non-NG sources CH_4 emission estimates (SI section 7, mean values); [c] October 1 and 2, 2015 range of mean values; [d] Industry study partner reported data (October 1 and 2, 2015 averages); [e] Based on [d] and range of bottom-up MLU emission rate estimates (see SI section 9); [f] PNER assuming no CH_4 emissions from MLU events (October 1 and 2, 2015 range of mean values).

The NOAA researchers — who in addition to taking state-of-the-art air measurements, also had full site access and emissions data from 90-plus percent of the operators in the Fayetteville region for the purpose of this study — were able to conclude,

> "Operator reported hourly activity data show that midday episodic emissions from manual liquid unloadings (a routine operation in this basin and elsewhere) could explain ~1/3 of the total emissions detected midday by the aircraft and ~2/3 of the West-East difference in emissions."

> "[E]pisodic sources can substantially impact midday methane emissions and aircraft may detect daily peak emissions rather than daily averages that are generally employed in emissions inventories."

The motivation of the NOAA study — the first in a series of research planned in the Fayetteville region — was to better characterize "top down" emission collection techniques in aircrafts with "bottom up" facility-level methods in an effort to reconcile the two methods by combining the two approaches.

"Top down" studies typically yield higher emissions than "bottom up" studies, and – as a result – critics have suggested bottom-up studies underestimate emissions. But as the NOAA study notes, not only did those studies assume that the higher emissions detected using the "top-down" method were from episodic and other peak emissions events, they also inappropriately used statistical models to extrapolate these measurements as if they were typical emissions on a 24-hour-a-day, 365-day-a-year basis.

As the NOAA study explains,

> "We offer a different explanation by showing that manually-triggered, episodic releases of NG can represent a large fraction (~1/3 in this case) of total midday CH4 emissions. This explanation is based on average emission rates of the specific episodic releases (MLU) rather than statistical fat tails. Thus, a valid comparison of aircraft estimates with annualized inventories needs to establish the representativeness of midday activity data for annualized emissions… Episodic

> releases, rather than atmospheric variability, may also explain substantial day-to-day variability."

The fact that there was a substantial difference in emissions from the first day to the final day of the two-day sampling process of the study also supports the researchers' topline conclusion,

> "The 22% emission difference between both days further emphasizes that episodic sources can substantially impact midday methane emissions and that aircraft may detect daily peak emissions rather than daily averages that are generally employed in emissions inventories. While the aircraft approach is valid, quantitative and independent, our study sheds new light on the interpretation of previous basin scale aircraft studies, and provides an improved mechanistic understanding of oil and gas related methane emissions."

These recent studies generate some specific issues that bear on the OIG assessment of EPA's actions regarding methane emissions estimates, particularly when those estimates become instrumental in rulemaking actions that have profound consequences for American oil and natural gas production.

First, developing emissions estimates is different between those for general understanding purposes such as the GHGI and those for regulations. Crafting an inventory will never be precise and it can err without consequences. However, in developing an NSPS or other regulatory programs, including a CTG, the CAA imposes a greater responsibility on EPA. That responsibility is substantive because the consequences are significant. For example, the BSER determination requires balancing multiple factors. Therefore, EPA should bear the burden of acquiring data consistent with that responsibility. However, with regard to the development of methane regulations for oil and natural gas production facilities, it did not.

Second, in looking through the past several years, EPA begins its estimating process using mid-1990s data that were never taken for the purpose of regulation. The EDF-UT studies show that the pattern for emissions is based on a few sources with "fat-tails" and calls into question the underlying data assumptions. The two recently released reports by EPA and NOAA that were funded with federal money show that prior studies were overestimating emissions. Yet, despite knowing that better emissions estimates must be developed, EPA moved forward on regulations without acquiring the necessary information, without meeting its fundamental BSER responsibilities. Worse, it relied on specious analyses from environmental activists – pressing for an agenda to undermine American oil and natural gas production. It took these actions knowing that it was initiating studies to address the fundamental issues. It took theses actions without a compelling legal reason to do so. Even the consent decree that created the 2012 Subpart OOOO regulations did not mandate that EPA act; it mandated that EPA had to determine if it needed to act.

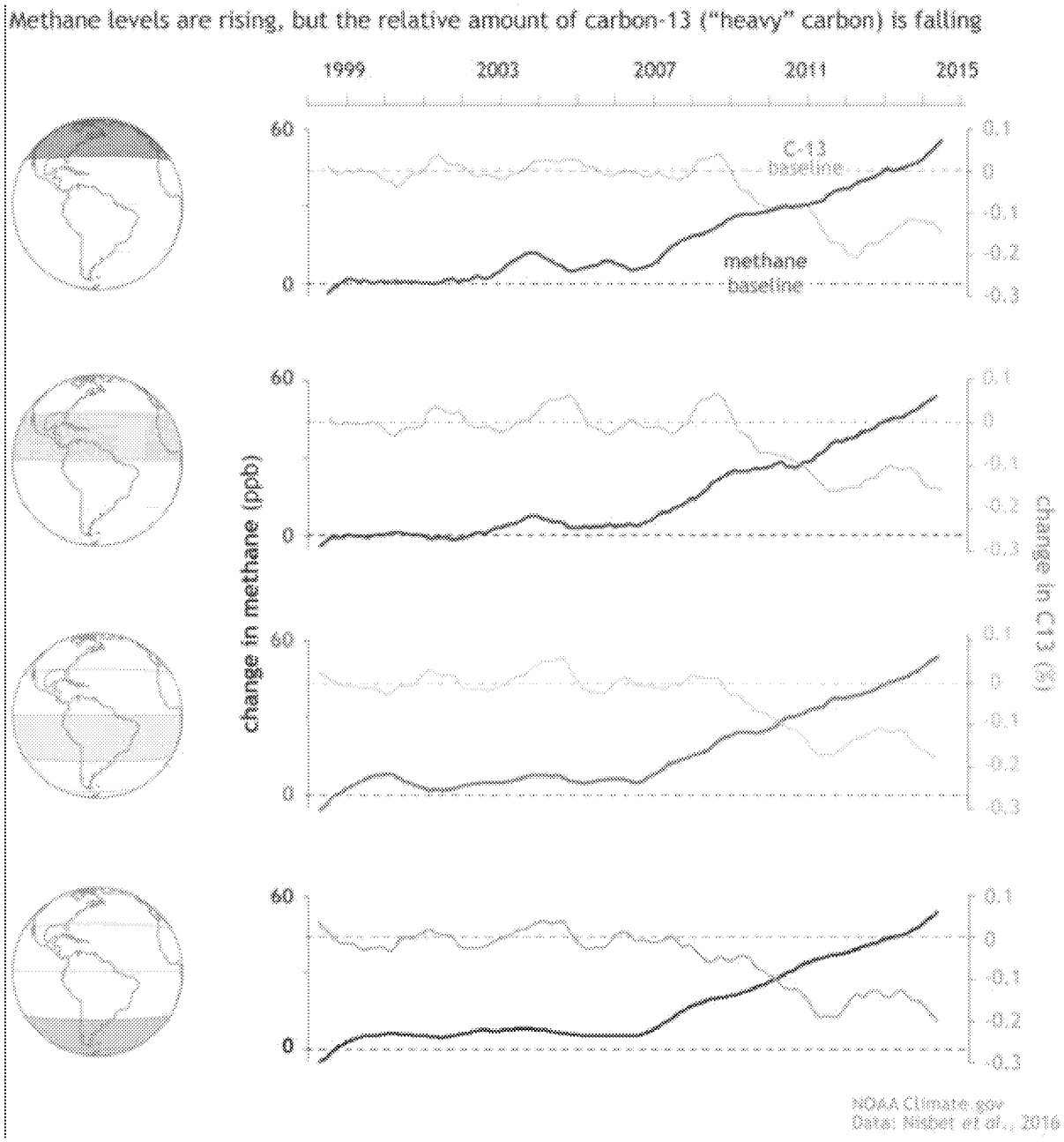
Third, the issue of political rather than scientific decisions generating regulations must be confronted. The timeline for EPA's regulations follow the Obama Administration Climate Action Plan, not EPA's schedule to improve its methane emissions data. This pell-mell action to produce a federal regulatory structure based on the Keep It in the Ground environmentalist agenda calls into question EPA's ability to rationally act. For example, during the rush to complete Subpart OOOOa to assure it was in place prior to the end of the Obama Administration, EPA repeatedly indicated to industry stakeholders that if it chose to regulate methane emissions, its actions did not compel it to act under CAA Section 111(d) to regulate

existing sources. Yet, as soon as Subpart OOOOa was finalized, EPA announced it intended to initiate an Information Collection Request (ICR) to begin the process of creating a nationwide existing source regulation despite the Obama Administration's creation of both an EPA created CTG and a BLM existing source regulation. This action was widely recognized as a temporary action to deter demands by the Keep It in the Ground environmentalists for an immediate action to replicate the Section OOOO and Section OOOOa regulations as nationwide existing source requirements using Section 111(d). Moreover, this demand had support within the Obama Administration despite the reality that it ignored all of the logical actions that EPA needed to take for rulemaking.

New Reports Point to Other Methane Sources

At the same time that the Obama Administration focused its attention on regulating oil and natural gas production operations as its principal methane emissions target, new reports are pointing toward other areas where the understanding of methane emissions suggest that those emissions have been underestimated. Following is a recent analysis by Energy In Depth (EID) that reviews these reports:

> Last year, EID highlighted the fact that several recent peer-reviewed studies have concluded microbial sources of methane such as wetlands, agriculture and rice paddies are responsible for the increase in global emissions since 2007 — not oil and natural gas production.
>
> And now, recent updates to the National Oceanic and Atmospheric Administration's (NOAA) website further debunks environmentalists' misguided claim that shale development is responsible for driving up global methane emissions. From Climate.gov,
>
>> "NOAA observations, analysis, and field research campaigns suggest the increase (in global methane emissions) is being driven by natural and agricultural emissions, not fossil fuels."
>
> This conclusion is based on the fact that NOAA research found the amount of methane carrying a rare isotope associated with oil and natural gas production — carbon-13 — has dropped "significantly" since 2007. As NOAA researchers Rebecca Lindsey and Michon Scott write,
>
>> "That drop casts doubt on one of the first explanations experts considered for the post-2007 rise: an increase in methane emitted from fossil fuels, including 'fugitive' methane gas escaping during oil and natural gas drilling. **Instead, the chemical fingerprints point toward agricultural and wetland emissions from the tropics**."
>
> As the following NOAA graphic illustrates, the amount of carbon-13 detected (lighter colored lines) started to fall in 2007 while overall methane levels (darker colored lines) increased in each of the four latitude zones NOAA collected air samples from.



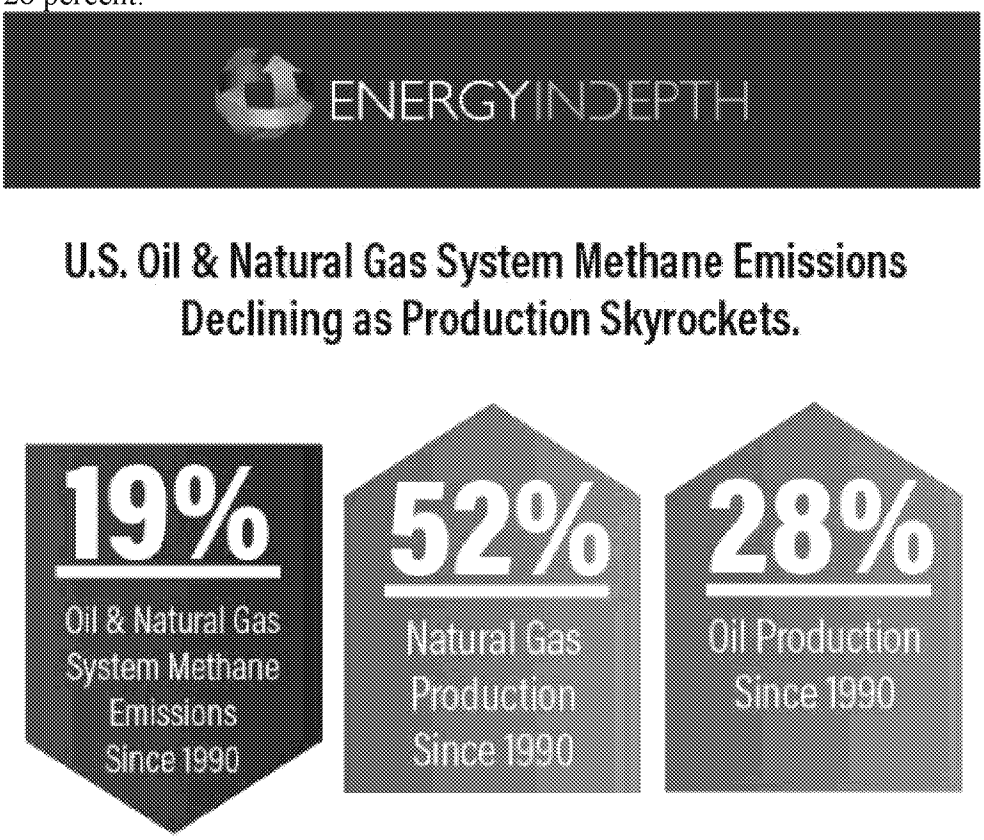
As Lindsey and Scott write, the data simply don't support the anti-fracking narrative that shale development has driven up global methane emissions, despite the fact that global emissions started to rise about the time the shale revolution started,

> "The post-2007 uptick in global methane levels roughly coincides with the rapid deployment of natural gas 'fracking' in the United States, making fugitive emissions a logical suspect. **But attempts to verify the connection have produced counter-intuitive results**, according to Stefan Schwietzke, a methane expert from the Cooperative Institute for Research in Environmental Sciences (a NOAA-University of Colorado Boulder partnership).

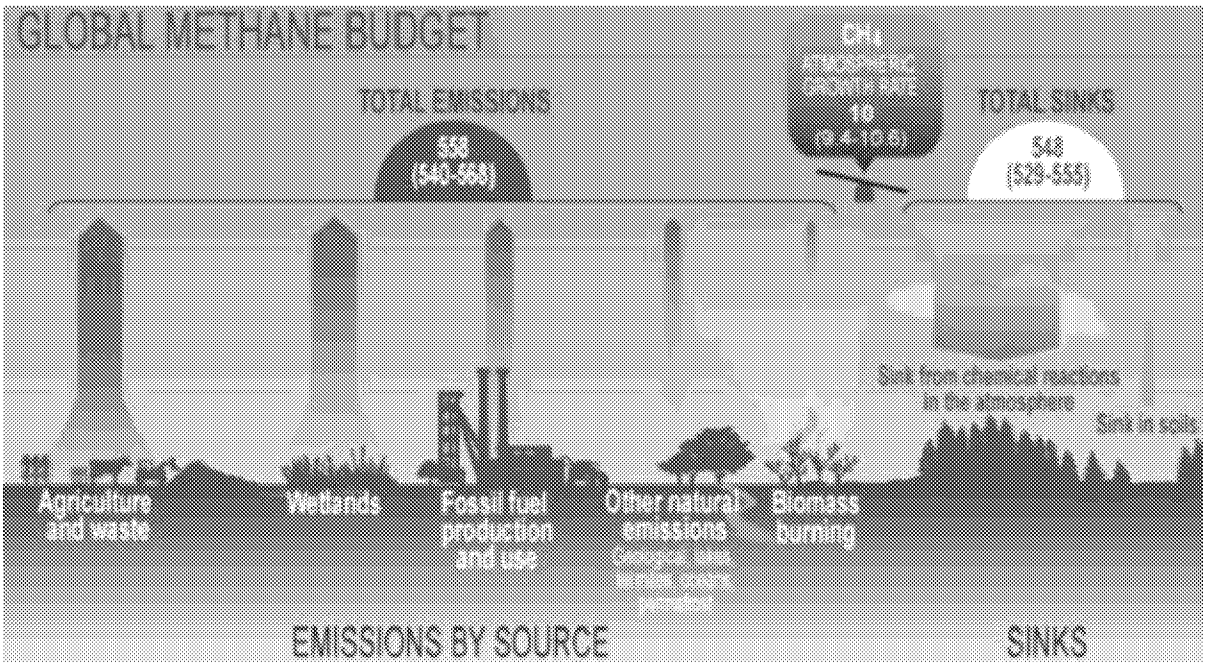
> "Schwietzke's research suggests that methane emissions from fossil fuels *are* higher than countries' self-reported inventories suggest, and they may even be increasing. And yet, he explained via email, methane derived from fossil fuels is enriched with carbon-13 — a rare, heavy isotope of carbon — and air samples show that the amount of carbon-13-flavored methane is dropping worldwide.
>
> "The drop seems to rule out fossil fuel emissions, wildfires, or biomass cook stoves as the reason for the post-2007 methane surge. All those sources of methane, to a greater or lesser extent, are enriched in carbon-13, not depleted."

Furthermore, as the above NOAA graphic illustrates, "Declines in the late 1990s through the mid-2000s are concentrated in the Northern Hemisphere. The leading hypothesis **is that industrialized countries, including the United States, got better control of 'fugitive' methane emissions, which escape during drilling and pumping of oil and natural gas**."

This conclusion is supported by the latest U.S. EPA Greenhouse Gas Inventory, which shows methane emissions from oil and natural gas systems have decreased 19 percent since 1990 (249 million metric tons to 202 mmt) at the same time natural gas production has increased 52 percent and oil production has increased 28 percent.



Several recent studies (see below) also support the data presented in the following NOAA graphic showing agriculture and wetlands are a larger source of global methane than fossil fuel production and use.



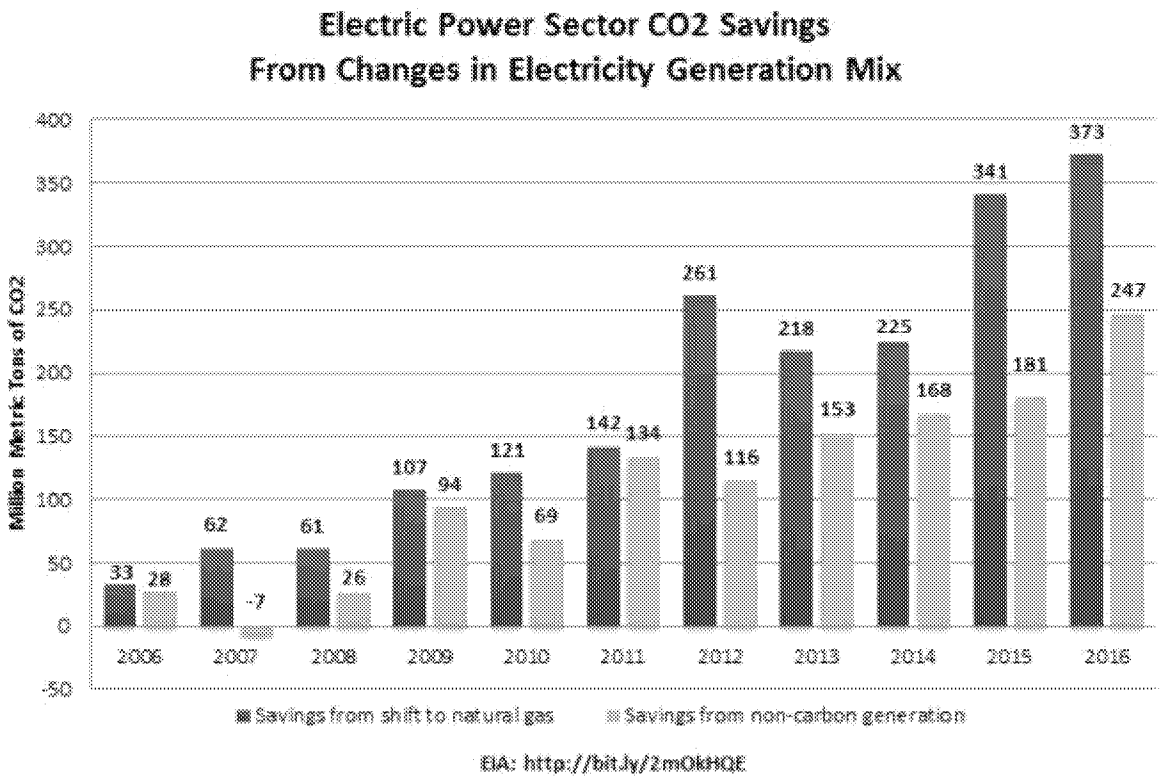
National Oceanic and Atmospheric Administration (NOAA) Study: This study found that microbial sources such as rice paddies and wetlands are the cause of the global increase in methane emissions. Lead author Stefan Schwietzke of NOAA at the University of Colorado Boulder also emphasized that fossil fuel development is "not responsible for the increase in total methane emissions observed since 2007."

Department of Earth Sciences at Royal Holloway, University of London Study: This study found the spike in global methane emissions since 2007 has been "largely driven" by tropical wetlands and agriculture. Using measurements made by NOAA's Cooperative Global Air Sampling Network in three locations (the Canadian Artic, the south Atlantic and South Africa), a combination of latitudinal analysis and isotopic data led researchers to determine a majority of the methane increase since 2007 has a biogenic signature, meaning it cannot be attributed to thermogenic methane from oil and gas development. The study further notes that the tropical wetlands are responsible for **as much as a quarter of global methane emissions**, and that significant weather events — such as La Nina in 2007 and 2008 — could explain a nearly 50 percent hike in methane emissions when compared to the last half decade.

NOAA and the National Institute of Water and Atmospheric Research in New Zealand (NIWAR) Study: This study also found increased global methane emissions are coming from wetlands and agriculture. On the increase in agriculture, the study itself notes that

India, China and South East Asia are likely emitting the highest amounts of methane: "India and China's dominance in livestock-emissions and S.E. Asian rice cultivation are consistent with the location of the source increase."

Furthermore, NOAA's statement that "carbon dioxide is the 800-pound gorilla" when it comes to global warming because "it's the most abundant of the long-lived greenhouse gases that human activities generate" is also worth emphasizing, considering the Energy Information Administration (EIA) credits 62 percent of the total 12 percent of U.S. CO2 reductions from 2005 levels to increased natural gas use.



All these facts considered, the science is clear: methane emissions from oil and natural gas development are not driving the global increase in emissions observed since 2007, and are actually declining as production remains near record levels. Furthermore, increased natural gas use is responsible for a vast majority of U.S reductions of carbon dioxide — the greenhouse gas NOAA considers the "800-pound gorilla" in the fight to combat climate change.

So why do environmentalists continue to make methane emissions from oil and natural gas systems — specifically costly regulations that would reduce global temperatures a mere 0.0047 degrees Celsius by the year 2100 — a focal point of the climate change debate?

It is becoming more and more evident that this campaign is driven more by politics and ideology than science.

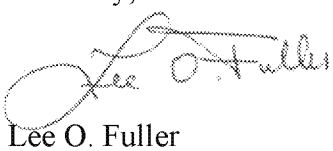
Conclusion

EPA's history of actions from 2009 through 2016 should be set against the results of recent data demonstrating that EPA was overestimating methane emissions from oil and natural gas production operations and their contribution to the overall GHG emissions. If EPA and other federal agencies were in the process of collecting methane emissions data that would help determine the validity of its estimating process, the issue of why EPA then acted so precipitously to regulate in the absence of that information needs to be assessed. Rather than the OIG evaluating EPA's methane emissions process, it should be turning its attention to whether EPA was capable of controlling the development of its regulatory program and meeting its responsibilities to make the technology decisions required under the CAA during the Obama Administration without inappropriate pressures on the agency.

IPAA appreciates the opportunity to provide information on the issue of methane emissions estimation with regard to oil and natural gas production facilities. Much of the information included in this letter can be viewed in more detail at the EID website, including analyses of specific reports and studies – some of which are linked in this letter. Launched by IPAA in 2009, EID is a research, education and public outreach campaign focused on getting the facts out about the promise and potential of responsibly developing America's onshore energy resource base – especially abundant sources of oil and natural gas from shale and other "tight" formations across the country.

If you have questions or need additional information, please contact me at lfuller@ipaa.org.

Sincerely,



Lee O. Fuller
Executive Vice President

Message

From: Brien, Michael P [Mike.Brien@bp.com]
Sent: 4/18/2017 5:27:23 PM
To: Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]; Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
CC: Stout, Robert [Robert.Stout@bp.com]; Streett, Mary [Mary.Streett@bp.com]; Brien, Michael P [Mike.Brien@bp.com]
Subject: Point of Obligation follow-up
Attachments: removed.txt

Importance: High

Mandy and Brittany,

Thanks for meeting with us this past Monday, April 10 to discuss our perspective on the RFS and the point of obligation (PoO). We appreciated your clear framing of the pertinent questions and the overall quality and candor of the dialogue. I hope the discussion was useful to you as well.

As expressed at the meeting, we believe the debate on PoO distracts from progressing reforms to the RFS that could in fact deliver greater clarity and certainty to both obligated parties and biofuel producers. The noise around the PoO also undermines and severely disrupts what is currently an efficient RIN market.

As promised, we have collected comments from the docket (and linked them to the Source material) that address each of the points you were seeking clarity on:

1. Moving the PoO will result in a significant *increase in the number of obligated parties*.
2. Wholesale fuel markets are operating efficiently and *RIN prices are quickly passed through*.
3. Moving the PoO will require *significant infrastructure changes* to the current system.
4. The current RIN market structure *does not create windfall profits* for the blender or out of pocket cost to the refiner.

If you have additional questions regarding these citations or other issues you would like to clarify please let me know.

Mike

1. Increase in the Number of Obligated Parties

Most respondents agree that moving the PoO would significantly increase the number of obligated parties and overall program complexity. It would layer regulations, inspections, and paperwork on businesses that have no experience with compliance, and increase the chance of fraud in the RIN market because of more obligated parties and fewer EPA inspectors.

In public comments, many diverse companies and trade associations reference this issue:

> American Coalition for Ethanol: "Changing the point of obligation would result in at least 1,000 new obligated parties." (pg.3)

Petroleum Marketers and Convenience Stores of Iowa (PMCI): "Moving the point of obligation would pull thousands of companies into this requirement ultimately impacting consumers negatively." (pg.2)

Kinder Morgan, Inc.: "The proposed change could easily triple the number of obligated parties." (pg.2)

Marathon Petroleum Corporation: "Over 1,000 locations where gasoline and diesel transactions would need to be measured and recorded." (pg.7)

2. Pass-through

Studies show that RIN prices are passed through quickly into the wholesale prices of obligated fuels, demonstrating that current wholesale fuels markets are operating efficiently. The refiner is compensated for the RIN cost and the blender uses the RIN value to offset the higher cost of the blend stock.

In a study entitled, "The Pass-Through of RIN Prices to Wholesale and Retail Fuels under the Renewable Fuel Standard,"Christopher Knittel, Sloan School of Management, MIT; Ben Meiselman, University of Michigan; and James Stock, Harvard University found:

> "When we examine wholesale prices on comparable obligated and non-obligated fuels, for example the spread between diesel and jet fuel in the U.S. Gulf, we find that that roughly one-half to three-fourths of a change in RIN prices is passed through to obligated fuels in the same day as the RIN price movement, and this fraction rises over the subsequent few business days. Using six different wholesale spreads between obligated and non-obligated fuels, we estimate a pooled long-run pass-through coefficient of 1.01 with a standard error of 0.12." (pg.2)
>
> "We also examine the transmission of RIN prices to retail fuel prices. The net RIN obligation on E10 is essentially zero over this period, and indeed we find no statistical evidence linking changes in RIN prices to changes in E10 prices." (pg.2)

In the whitepaper "Preliminary Assessment of RIN Market Dynamics, RIN Prices and Their Effects" EPA concludes that RIN values are transferred efficiently through the retail value chain:

.

> "While RIN prices were significantly higher in 2013 than in previous years, we did not see, nor would we expect to see, a corresponding net increase in the overall retail price of transportation fuels across the entire fuel pool. This is because the RIN price, rather than acting as an additional cost, generally acts as a transfer payment between parties that blend renewable fuels and obligated parties who produce or import petroleum-based fuels and are required to obtain RINs for compliance purposes. RINs are generated by renewable fuel producers and sold attached to volumes of renewable fuels to fuel blenders or obligated parties. When the RINs are separated from the renewable fuel and sold independently, the RIN seller may use the revenue received for the RIN to discount the effective cost of the renewable fuel. In order to recover the cost of purchasing RINs, however, obligated parties are expected to increase the selling price of the petroleum products they produce. If fuel prices are fully flexible, markets are perfectly competitive, and we assume no changes to the price of renewable or petroleum based fuels, these two price impacts, the discounting of renewable fuels enabled by the sale of the RINs and the higher petroleum prices that result from the cost of purchasing RINs, are expected to offset each other, resulting in the RIN price having no net impact across the entire fuel pool." (pg.2)
>
> "Merchant refiners, who largely purchase separated RINs to meet their RFS obligations, should not therefore be disadvantaged by higher RIN prices, as they are recovering these costs in the sale price of their products. Were this not the case, merchant refiners could, and we expect would, avail themselves of other compliance strategies such as contractual arrangements and investing in fuel blending and

distribution infrastructure, which are available to merchant refiners looking for alternative methods for meeting their RIN obligations." (pg. 3)

3. Infrastructure changes

Shifting the PoO downstream would (i) created stranded sunk costs for companies that have invested in infrastructure projects in reliance upon the current RFS structure that has existed for many years, and (ii) force companies to incur additional costs for infrastructure and compliance with a potential new system.

In a comment letter, UPS (currently a non-obligated party but a large bulk fuel purchaser and blender of biofuels) said that a shift in PoO would diminish their ability to continue leadership in the adoption of renewable fuels into their ground fleet. UPS would likely have to change how it operates and could reduce the level of biofuel blending it performs today:

"We have an inventory position, and a subsidiary that serves as a licensed reseller, often because we need to turn over product held for more than month in storage. Consequently, we bear little resemblance to the parties who currently have the RFS purchase obligation. They are typically refiners or importers of product at the top of the fuel supply chain. The Valero net would also capture many parties like UPS who are not blenders. The unintended consequences on the RFS program of capturing such parties as UPS should worry the EPA." (Pg.2)

"If the RFS obligation were shifted downstream, it would force UPS to re-examine its above-the rack purchases, which we began long before the RFS began. We engage in above the rack purchases in order to reduce the cost to us of diesel fuel, jet fuel and gasoline and lower our cost of delivering packages. For us, the RFS program would move from an effective incentive to purchase renewable fuels voluntarily to a disincentive to our purchase of fuels above the rack. This would raise our fuel costs, lower price competition above the rack, and disrupt our plans to incorporate renewable fuels into our fleet." (pg.3)

The National Association of Truck Stop Owners (NATSO), representing America's truck stops and travel plazas, submitted comments in strong opposition to the change in PoO. They state that moving the PoO would not prompt investment in infrastructure:

"For example, moving the point of obligation would not prompt investment in infrastructure that is listed by a testing laboratory as being compatible with higher renewable fuel blends – it would do the opposite. Fuel marketers would stop buying fuel above the rack if they are not certain that they have the infrastructure in place to sell the requisite gallons of renewable fuel to satisfy their RVOs." (pg.7)

"The 'small retailers' fundamental problem, therefore, is caused not by the point of obligation, but by their suppliers' business stratagem. Changing the point of obligation will not address any of their concerns – unbranded marketers would still be nimble enough to buy fuel more efficiently and price it more competitively than their branded counterparts. What's more, there is absolutely no reason to believe that suppliers, who do not pass meaningful values through to their branded retailers today, will have a charitable change of heart should the point of obligation move downstream." (pg.13)

4. Windfall Profits

The findings of multiple academic researchers, along with EPA's own findings, show that RINs represent neither a windfall profit to the blender nor an out-of-pocket cost to the refiner.

Edgeworth Economics conducted a study entitled "Economic Issues Associated with a Change of the RFS Point of Obligation" on behalf of Growth Energy to provide independent opinions regarding economic issues raised by parties on both sides of the argument. They found that the current structure creates no windfall profits or out of pocket costs:

"…[T]he cost of RIN acquisition for blenders is integrated in their cost to acquire ethanol—ethanol with RINs attached costs more than ethanol without RINs."(pg.2)

"Because prices of gasoline blendstocks sold at wholesale reflect RIN values, merchant refiners recoup their costs to acquire RINs when they sell their gasoline products…" (pg.2)

"…Notwithstanding the fact that some companies report RIN expenses or RIN revenues as distinct line items in their financial statements, the overall impacts of RIN generation and sales (for nonintegrated blenders) and RIN acquisitions (for merchant refiners) are largely or perhaps completely offset by countervailing costs or revenues experienced by the companies in their transactions of component fuels." (pg.12)

EPA addressed these claims directly and at length in its Proposed Denial of Petitions for Rulemaking to Change the RFS Point of Obligation. EPA concluded that RIN transactions do not represent windfall gains to non-integrated blenders and integrated refiners, nor do they represent discriminatory costs to merchant refiners:

"Less obviously apparent, however, is the impact of the RFS program on the market price for the petroleum blendstocks that merchant refiners sell. As discussed further below, all refiners and importers of gasoline and diesel fuel incur costs to comply with RFS obligations. This is true whether the refiners and importers acquire RINs by blending renewable fuels or purchasing separated RINs – meaning no fundamental inequity exists." (pg.17)

"First, we note that the fact that companies report income for RIN sales does not indicate that these companies are receiving a windfall from the RFS program. This is equivalent to claiming a company's reported sales are equivalent to their profits, while ignoring their expenses to acquire the good sold… Such an assessment ignores costs that the company realized in order to acquire these RINs, such as lower fuel margins than would have been realized if the party did not blend renewable fuels and any investments in infrastructure that the company has made to enable them to blend renewable fuels and distribute these fuel blends." (pg.19)

"We believe that it is unlikely that any party, including both unobligated blenders and integrated refiners, would be able to realize windfall profits from RIN sales in the highly competitive fuel sales markets in the United States. Because we believe the cost of RINs is recovered by all obligated parties, whether they purchase separated RINs or acquire RINs along with renewable fuels they produce or purchase, we do not believe increased prices for RINs lead to competitive imbalances among different obligated parties, as suggested by petitioners." (pg.21)

A report by Iowa State University entitled "Impact on Merchant Refiners and Blenders from Changing the RFS Point of Obligation" shows that high RIN prices, holding constant gasoline consumption levels, have no impact on profits of refiners, blenders, or integrated oil companies:

"Our analysis of the impacts of high RIN prices differs sharply from those who advocate moving the point of obligation to blenders. Thus, it is no surprise that we conclude that moving the point of obligation would have little-to-no impact on the distribution of gains and losses from high RIN prices or on the overall effectiveness of the program. This conclusion also sets aside the issue of whether the administrative complexity of the RFS program would be increased by moving the point of obligation to blenders." (pg.9)

Michael Brien

BP America Inc. | Senior Director, Regulatory Affairs

phone Personal Matters / Ex. 6 | e-mail: mike.brien@bp.com
BP America | 30 S Wacker Dr. | 7N 381 | Chicago, IL 60606

Message

From: Walls, Michael [Michael_Walls@americanchemistry.com]
Sent: 5/2/2017 3:40:13 PM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
Subject: AAI Technical Affairs Committee Call
Attachments: AAI Organizations Expected to Participate on May 2 Call.docx

Brittany, here is the list of organizations participating in today's call. Thank you!

++++++++++++++++++++++++++++++ This message may contain confidential information and is intended only for the individual named. If you are not the named addressee do not disseminate, distribute or copy this email. Please notify the sender immediately by email if you have received this email by mistake and delete this email from your system. E-mail transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. The sender therefore does not accept liability for any errors or omissions in the contents of this message which arise as a result of email transmission. American Chemistry Council, 700 – 2nd Street NE, Washington, DC 20002, www.americanchemistry.com

AAI Organizations Expected to Participate
May 2 Call with Brittany Bolen

Adhesive and Sealant Council
American Association of Home Appliance Manufacturers
American Chemistry Council
American Coatings Association
American Coke and Coal Chemicals Institute
American Composites Manufacturers Association
American Forest & Paper Association
American Fuel & Petrochemical Manufacturers
American Industrial Hygiene Association
Biotechnology Innovation Organization
Color Pigments Manufacturers Association
Consumer Specialty Products Association
Edison Electric Institute
Fashion Jewelry & Accessories Trade Association
Flexible Packaging Association
Global Automakers
Grocery Manufacturers Association
Grocery Manufacturers Association
Industrial Minerals Association - North America
Information Technology Industry Council
International Dairy Foods Association
INTERNATIONAL FRAGRANCE ASSOCIATION NORTH AMERICA
International Sleep Products Association
IPC - Association Connecting Electronics Industries
Motor & Equipment Manufacturers Association
National Association of Chemical Distributors
National Association of Manufacturers
National Stone, Sand & Gravel Association
Plastics Industry Association
RegNet Environmental Services
Rubber Manufacturers Association
Society of Chemical Manufacturers and Affiliates
Textile Rental Services Association
The Vinyl Institute
Toy Industry Association
U.S. Chamber of Commerce

Message

From: Lee Fuller [lfuller@ipaa.org]
Sent: 5/16/2017 8:55:57 PM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
Subject: EPA Region 8 Enforcement

Brittany,

I don't know if you are hearing from others, but some of my companies remain concerned about aggressive EPA Enforcement actions in Region 8. I don't get details because of gag orders.

Thanks,

Lee

Sent from my iPhone

Message

From: Holdsworth, Eric [EHoldsworth@eei.org]
Sent: 11/8/2017 6:07:53 PM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]
CC: Shea, Quin [QShea@eei.org]; Kime, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ef7b76087a6475b80fc984ac2dd4497-RKime]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]
Subject: COP-23: EEI Contact Info
Attachments: COP23-ContactInfoEEI.doc

Brittany and Mandy,

Thanks again for making the time to talk with us yesterday and glad it was helpful. As promised, attached is the contact info for the EEI delegation, including email and cell numbers. If you can send me a note when you arrive with your on-site contact info, I will make sure to get ahold of you regarding details for the EEI dinner, briefings, etc. In that vein, as part of our activities at recent COP meetings, we have arranged briefings with Administration officials (e.g., White House, EPA, etc.) and US business NGO reps attending the meetings (generally about 20 or so industry folks). We'd be happy to arrange a similar meeting in Bonn if your schedule permits.

As I mentioned, we are also organizing an EEI dinner with Administration officials, which we would very much like to have the two of you attend. We are currently looking at holding it on Tuesday, November 14 at Il Punto in downtown Bonn in order to avoid any conflicts with the US side event being held Monday evening at 6:30 pm. I'll be in touch with more information and hope that both of you can make it. We are also reaching out to Dave Banks in the hopes that the can attend as well.

Please do not hesitate to contact us if we can be of any assistance to you, either before you leave or once you are on site. I look forward to seeing both of you in Bonn.

Sincerely,

Eric

Eric Holdsworth
Senior Director, Climate Programs | Edison Electric Institute
Ex. 6 mobile | eholdsworth@eei.org

COP-23: EEI DELEGATION

CONTACT INFORMATION

Delegate	Company	Arrival	Departure	Hotel	Delegation	Contact Info (e-mail and cell phone)
Eric Holdsworth	EEI	Nov. 9	Nov. 16	Maritim Koningswinter Rheinallee 3 Koningswinter 49-02-22-37070	EEI (Bonn & Bula Zone)	eholdsworth@eei.org; Ex. 6 Sr. Director, Climate Programs
Beth Viola	EEI	Nov. 11	Nov. 15	Maritim Koningswinter Rheinallee 3 Koningswinter 49-02-22-37070	EEI (Bonn Zone)	beth.viola@hklaw.com; Ex. 6
Brian Wolff	EEI	Nov. 11	Nov. 15	Maritim Koningswinter Rheinallee 3 Koningswinter 49-02-22-37070	EEI (Bonn & Bula Zone)	bwolff@eei.org; Ex. 6 Executive Vice President, Public Policy and External Affairs
Cathy Woollums	Berkshire Hathaway Energy	Nov. 7	Nov. 15	Kameha Grand Bonn Hotel Am Bonner Bogen 1 Bonn 49-02-28-4334 5000	EEI (Bonn & Bula Zone)	CSWoollums@berkshirehathawayenergyco.com; Ex. 6 Sr. Vice President, Environmental and Chief Environmental Counsel

Message

From: Foley, Allison D. [ADFoley@Venable.com]
Sent: 3/16/2018 8:05:25 PM
To: Dravis, Samantha [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ece53f0610054e669d9dffe0b3a842df-Dravis, Sam]
CC: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]; jim.roewer@uswag.org; Harley, Peter [Peter.Harley@nationalgrid.com]
Subject: Thank you and follow up from March 6 meeting

Flag: Follow up

Dear Ms. Dravis:

Thank you to you and Ms. Bolen for meeting with representatives of the Utility Solid Waste Activities Group (USWAG) last week to discuss important PCB regulatory reform initiatives. As discussed during the meeting, USWAG believes that the PCB regulatory improvements requested in USWAG's May 12, 2017 comments on Executive Order 13777 will eliminate unnecessary and costly regulatory burdens and logistical challenges that significantly delay cleanup projects, and are therefore consistent with EO 13777 and EPA's Smart Sector Initiative objectives.

Of particular importance to USWAG are the following requests for improvement of the existing PCB regulations discussed at last week's meeting:

- Amendment of the analytical provisions of 40 C.F.R. Part 761 (*i.e.*, 40 C.F.R. §§ 761.61(a)(5)(B)(iv), 761.253, 761.272, 761.292, 761.358, 761.395) to allow for the use of "any extraction method allowed under Method 8082 from SW-846, as Method 8082 may be revised." This would allow for real-time adaptation of the PCB regulations to reflect advances in analytical technology, contingent on EPA's acceptance of such updated methodology in SW-846.

- Clarification of the PCB disposal regulations to expressly provide that all PCB remediation wastes with as-found concentrations < 50 ppm PCB (provided such concentration is not the result of improper dilution in violation of the 761.1(b)(5)) may be disposed of in non-TSCA disposal units. We are currently working with our members to compile additional costs savings data, based on member use of the PCB remediation waste disposal approval issued to USWAG members in June 2014, to further support this request.

We will follow up with additional member-provided data regarding cost savings and operational advantages associated with the requested regulatory amendments. In the meantime, please do not hesitate to reach out with questions regarding USWAG's requests.

Best,

Allison D. Foley, Esq. | Venable LLP
Ex. 6
600 Massachusetts Avenue, NW, Washington, DC 20001

ADFoley@Venable.com | www.Venable.com

****
This electronic mail transmission may contain confidential or privileged information. If you believe you have received this message in error, please notify the sender by reply transmission and delete the message without copying or disclosing it.
****

Message

From: Birsic, Michael J. (MPC) [mjbirsic@marathonpetroleum.com]
Sent: 1/4/2018 4:54:28 PM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
Subject: RMP VPP Paper and Letter
Attachments: 20170712 RMP VPP Abstract.docx; Letter to US EPA Regarding Risk Management Program.pdf

Flag: Follow up

Brittany,

Thanks for your time today. Here are the other documents I said I would send.

Mike

Michael Birsic
Marathon Petroleum Corporation
1201 F Street, NW, Suite 625
Washington, DC 20004
Direct: Ex. 6
Cell: Ex. 6
Fax: 202-442-2492
mjbirsic@marathonpetroleum.com

Risk Management Program "Voluntary Protection Program"

Abstract

Create a voluntary compliance assurance and protection program at EPA that allows RMP-regulated entities to invite an EPA audit without fear of penalty.

Goals

1. Improve industry-agency relations
2. Avoid litigation
3. Provide certainty to participating companies
4. Encourage a more goal-oriented approach for industry rather than penalty-avoidance behavior
5. Shift EPA's enforcement focus to "outliers" (bad actors)

Implementation Considerations

- Ensure the program does not conflict with OSHA VPP requirements for PSM-regulated facilities.
- Provide expedited path for PSM-regulated facilities already meeting OSHA VPP requirements.
- Ensure companies have ample opportunity to cure issues identified through the application process so they can participate. Ensure that companies accepted in the program cannot be easily kicked out of the program and assessed penalties for issues identified through periodic audits.
    - If the company does not meet the qualifications, they should have a reasonable period to take corrective actions and be accepted into the program.
    - If the company's corrective actions do not suffice, EPA may deny their application. The company should then be able to apply again after one year.
        - **EPA may not assess monetary penalties for potential violations discovered through the voluntary inspections**
        - Willful conduct is excluded
- Provide special assistance for small businesses to apply and participate without hassle.
- Five to seven year reevaluation.
- Participating companies would be exempt from penalties for violations discovered during voluntary inspections, but will continue to be inspected, with penalties assessed, for violations found during inspections initiated through complaints and/or incidents.
- Provide for an EPA sponsored 'consult' program to provide guidance on developing and implementing compliant programs.

Marathon Petroleum Company LP

539 South Main Street
Findlay, OH 45840
Telephone 419/421-2869

September 18, 2017

BY OVERNIGHT DELIVERY

Patrick Davis
Deputy Assistant Administrator for the Office of Land and Emergency Management
U.S. Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N. W.
Mail Code: 6101A
Washington, DC 20460

Re: Risk Management Program Rule Amendments

Dear Deputy Assistant Administrator Davis:

We appreciated the opportunity to meet with you and your colleagues on July 12, 2017, to discuss the revisions to the Risk Management Program (RMP) regulations at 40 C.F.R. Part 68. As you requested, Marathon Petroleum Company LP (MPC) respectfully submits these comments regarding compliance audits. Specifically, we request that EPA reconsider the rule language requiring owners to audit "each covered process" and, alternatively, adopt language consistent with industry auditing practices, which recognizes a representative sampling approach to auditing. Next we propose adoption of a voluntary auditing program that would encourage owners to participate in independent audits prior to any incidents occurring at facilities. We believe that an auditing program designed to prevent incidents would be much more beneficial than requiring independent third-party auditing after an incident has occurred.

The revised RMP requirement to audit "each covered process" is unduly burdensome. Instead, the rule should be amended to require the owner to audit a representative sample of covered processes to verify compliance with the RMP regulations.

The revised RMP rule has expanded the auditing requirements for those facilities that have more than one covered process. The compliance audit provisions in 40 C.F.R. §§ 68.58(a) and 68.79(a) as amended by the RMP Amendments state:

> The owner or operator shall certify that they have evaluated compliance with the provisions of this subpart *for each covered process*, at least every three years to verify that the procedures and practices developed under the rule are adequate and being followed. (emphasis added).

Read literally, a facility owner would be required to review *each* RMP element at *each* covered process at its facility during a compliance audit. The time and resources necessary to perform such a task is significantly greater than any benefit that could be derived. Further, auditing of each covered process is not necessary to verify compliance with the RMP regulations. Ample regulatory and industry guidance exists regarding the way in which to perform comprehensive compliance audits, focusing on auditing of the RMP management system and representative sampling. The RMP management system is typically implemented across the entire facility, and, thus, auditing a sample of processes would be representative of all covered processes within the management system. Any common audit findings identified in multiple processes sampled would be addressed system-wide, and not just at the processes in which the finding was discovered.

An audit of the system is consistent with OSHA's approach to Process Safety Management (PSM) compliance audits. In Appendix C to §1910.119, OSHA states, "Employers need to select a trained individual or assemble a trained team of people to audit the process safety management system and program. . . . The audit is to include an evaluation of the design and effectiveness of the *process safety management system* and a field inspection of the safety and health conditions and practices to verify that the employer's systems are effectively implemented." 29 C.F.R. §1910.119, App. C, ¶14 (emphasis added).

OSHA further discusses the use of sampling in auditing. "An audit is a technique used to gather sufficient facts and information, including statistical information, to verify compliance with standards. Auditors should select as part of their preplanning a sample size sufficient to give a degree of confidence that the audit reflects the level of compliance with the standard." *Id.* This approach is further defined in OSHA's guidelines. In preparing for a compliance audit, OSHA recommends that during planning "auditors should select a sufficient number of processes to give a high degree of confidence that the audit reflects the overall level of compliance with the standard. Each employer must establish the format, staffing, scheduling, and verification methods before conducting the audit."[1]

Like OSHA, industry experts endorse statistical sampling strategies in execution of a comprehensive audit for an RMP covered stationary source. For example, the Center for Chemical Process Safety (CCPS) guidelines for auditing PSM Systems apply various unit sampling strategies to ensure a robust PSM audit.

For example, CCPS's most recent version of *Guidelines for Auditing PSM Systems* (2011), indicated a "lead auditor and audit coordinator for the site should decide which units will be chosen as representative units. A representative unit is a unit or part of a unit covered by the PSM program that is being audited in lieu of and as a representative of all covered units."[2] The guidelines further describe that levels of risk, age (of units), incident history, audit history and availability are all factors in considering covered process unit sampling strategies.

In addition, the Board of Environmental, Health & Safety Auditor Certifications (BEAC) and The Auditing Roundtable, in their joint letter to EPA commenting on the revised RMP rule, suggested that the following language is a better auditing strategy based on their expertise and experience:

---

[1] *Process Safety Management Guidelines for Compliance*, U.S. Department of Labor, Occupational Safety & Health Administration (OSHA 3133, 1994).

[2] *Guidelines for Auditing Process Safety Management Systems*, Center for Chemical Process Safety, p.84 (2nd Ed., 2011).

> The owner or operator shall certify that they have evaluated compliance with the provisions of this subpart *for a representative sample of covered processes sufficient to reflect compliance*, at least every three years to verify that the procedures and practices developed under the rule are adequate and being followed.[3]

MPC respectfully requests EPA adopt the covered process unit sampling strategies described in the referenced guidelines, which have been compiled by OSHA, industry experts and audit certifying organizations with specific experience in process safety management. In their documents, these organizations have presented compelling explanation and rationale why auditing a representative sample of a facility's covered processes is as effective, if not better, than arbitrarily requiring, by a prescriptive regulation, an audit of each covered process.

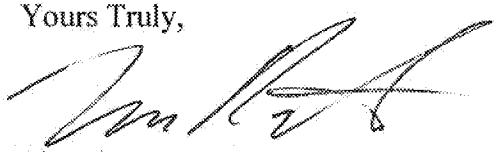
A voluntary auditing program would encourage independent auditing of facilities before accidental releases occurred.

In addition to requiring a compliance audit of "each covered process," the revised RMP rule also mandates that the audit be performed by an independent third-party auditor within twelve months of an accidental release. We support the comments from API, AFPM and CSAG regarding concerns with the third-party auditing provisions. Rather than rehash those comments, we offer an alternative to the third-party auditor requirement. We propose a program, similar to OSHA's Voluntary Protection Program (VPP), in which facility owners would voluntarily submit to independent third-party audits in exchange for certification. These audits would take place ***before*** an accidental release occurred at a facility and would serve to prevent, rather than react, to an incident.

Attached is an outline of considerations for a voluntary auditing program. The program could work in tandem with OSHA's VPP and provide facilities that are already certified under OSHA's VPP with an expedited path to similar status under EPA's program. In addition, the voluntary auditing program could provide compliance assistance to small businesses and facilities seeking guidance.

We would be happy to discuss further any of the information presented herein. Please do not hesitate to contact me at 419-421-2869.

Yours Truly,



Timothy J. Peterkoski
Manager, ESS&PQ

TJP:ceg
Attachment

[3] Letter dated May 12, 2016 to OSWER Docket, EPA Docket Center from Bill N. Qualls, President of The Auditing Roundtable and Joseph Cotier, Chair of the Board of Environmental, Health & Safety Auditor Certifications.

Risk Management Program "Voluntary Protection Program"

Abstract

Create a voluntary compliance assurance and protection program at EPA that allows RMP-regulated entities to invite an EPA audit without fear of penalty.

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- Five to seven year reevaluation.
- Participating companies would be exempt from penalties from voluntary inspections, but will continue to be inspected, with penalties assessed, for violations found during inspections initiated through complaints and/or incidents.
- Provide for an EPA sponsored 'consult' program to provide guidance on developing and implementing compliant programs

Message

From: Zumwalt, Bryan [Bryan_Zumwalt@americanchemistry.com]
Sent: 8/31/2017 4:55:17 PM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
Subject: Contact

Bill Erny- Cell: Ex. 6

He is expecting your call.

Sent from my iPhone
++++++++++++++++++++++++++++++ This message may contain confidential information and is intended only for the individual named. If you are not the named addressee do not disseminate, distribute or copy this email. Please notify the sender immediately by email if you have received this email by mistake and delete this email from your system. E-mail transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. The sender therefore does not accept liability for any errors or omissions in the contents of this message which arise as a result of email transmission. American Chemistry Council, 700 – 2nd Street NE, Washington, DC 20002, www.americanchemistry.com

Message

From: Schaaff, Lesley [lschaaff@hess.com]
Sent: 5/16/2017 9:22:53 PM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
Subject: RE: Follow-Up Discussion on Reg Reform

Sure thing – I'll reach out to them.

Lesley Schaaff
Senior Manager, Regulatory Affairs
Hess Corporation
(w) Ex. 6
(c)

From: Bolen, Brittany [mailto:bolen.brittany@epa.gov]
Sent: Tuesday, May 16, 2017 5:20 PM
To: Schaaff, Lesley
Subject: RE: Follow-Up Discussion on Reg Reform

Great to see you, too. I talked to Samantha about it and we would very much like to meet with you on this and some of the other items we discussed at the end of the meeting. Thursday is a nightmare scheduling-wise. Friday morning looks better. Do you mind calling Robin? I'll give her a heads up.

From: Schaaff, Lesley [mailto:lschaaff@hess.com]
Sent: Tuesday, May 16, 2017 3:57 PM
To: Bolen, Brittany <bolen.brittany@epa.gov>
Subject: Follow-Up Discussion on Reg Reform

Hi Brittany. It was great to see you today. If you would like any specific follow-up on our meeting or to discuss ideas on how to screen incoming regulatory reform suggestions, Puneet (Chevron) Hilary and I are available to talk Thursday or (preferably) Friday this week. I can work with one of your schedulers if that's easier – just let me know.

L

Lesley Schaaff
Senior Manager, Regulatory Affairs
Government & External Affairs
HESS CORPORATION
Office: Ex. 6
Cell: Ex. 6
lschaaff@hess.com

Message

From: Lee Fuller [lfuller@ipaa.org]
Sent: 4/13/2017 11:42:40 PM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
Subject: Re: Regulatory Reform and Other Items

Flag: Follow up

Thanks.

Sent from my iPhone

On Apr 13, 2017, at 7:28 PM, Bolen, Brittany <bolen.brittany@epa.gov> wrote:

> Hi Lee –
> Thanks for reaching out. I apologize for the delayed response – I haven't been able to keep up with my inbox. I may have availability to meet towards the end of next week or sometime the following week. I'll have someone from my office reach out to you to schedule a meeting.
> Best,
> Brittany
> **Brittany Bolen**
> Deputy Associate Administrator, Office of Policy
> U.S. Environmental Protection Agency
> (202) 564-3291
> Bolen.Brittany@epa.gov
>
> **From:** Lee Fuller [mailto:lfuller@ipaa.org]
> **Sent:** Friday, April 7, 2017 4:30 PM
> **To:** Bolen, Brittany <bolen.brittany@epa.gov>
> **Subject:** Regulatory Reform and Other Items
> Brittany,
> I read that one of your assignments is the regulatory reform task force. Consequently, I wanted to reach out on some issues of concern. I've attached an email that I sent to Ryan Jackson that raises several issues that we would like to discuss. (Separately, we are trying to arrange a meeting for Barry Russell, IPAA's President and CEO with Administrator Pruitt through Sydney Hupp.)
> Obviously, events are moving quickly. I know that the Administration filed an abeyance petition on the Subpart OOOOa litigation today. There is an issue there that is related that I'd like to call to your attention. The Subpart OOOOa fugitive emissions program – with its costly Leak Detection and Repair (LDAR) requirements – is scheduled to take effect on June 3. It would be helpful if this requirement, at least, could be stayed while the Subpart OOOO and OOOOa requirements are being reconsidered since a different approach might be developed. I know there are other provisions that are already in effect that raise similar issues.
> I also spoke with Dave Rostker from the SBA Advocacy office regarding LDAR in a small business context where the issues arises in both the Subpart OOOOa and VOC Control Techniques Guidelines context. He suggested reaching out to EPA as well.
> Hopefully, we can discuss these issues soon given your schedule.
> Thanks for your consideration,
> Lee Fuller
>
> **From:** Lee Fuller
> **Sent:** Thursday, April 6, 2017 2:40 PM
> **To:** Ryan Jackson (Jackson.Ryan@epa.gov) <Jackson.Ryan@epa.gov>
> **Subject:** IPAA Issues at EPA; Possible Meeting

Ryan,
I'm reaching out to you but would be happy if you point me to a preferred contact person.
After the recent Energy Executive Order, IPAA would like to discuss a number of pending issues with EPA.
Barry Russell, IPAA's President and CEO, would like to meet with Administrator Pruitt to introduce himself and IPAA. Barry worked for EPA in the 1970s before coming to IPAA.
The issues that we'd like to discuss relate to several matters.
First, EPA's actions in response to the Energy EO with regard to the methane NSPS (Subparts OOOO and OOOOa) are most important to IPAA. While currently engaged in the litigation opposing the regulations, the pathway to reconsideration and possible revision is critical. IPAA wants to be involved as soon as possible and wants to offer its cooperation.
Second, IPAA strongly supports efforts to expand and enhance delegation of regulatory authority to states. We are looking for options to be helpful in identifying pathways, working with our state cooperating associations to encourage state actions and working with Congress if there are barriers that need to be addressed.
Additionally, following are several other items – mostly directly affecting independent oil and natural gas producers – that we would like to identify as issues that we would hope EPA could address:

1. <!--[if !supportLists]--><!--[endif]-->Control Techniques Guidelines (CTG) – As a part of the Energy Executive Order, EPA is directed to reconsider the oil and natural gas methane New Source Performance Standard (NSPS) – Subparts OOOO and OOOOa. When the Obama Administration proposed the NSPS, it also proposed a CTG for existing sources of Volatile Organic Compounds (VOC) in Ozone nonattainment areas. The CTG was finalized in October 2016. It should be suspended or withdrawn until the NSPS issues are resolved and determinations can be made on the appropriateness of the technology being applied to existing sources. Otherwise, the CTG will be applicable in future State Implementation Plans (SIP).
2. <!--[if !supportLists]--><!--[endif]-->RCRA Subtitle D Consent Decree – EPA agreed to a Consent Decree to settle litigation regarding mandatory duties under RCRA Subtitle D related to making determinations regarding the appropriateness of state oil and natural gas production wastes regulations. EPA has until March 2019 to respond but it should act quickly for two reasons. First, EPA's mandate to act does not require an extensive burden and the longer it takes to act, the more state programs appear to be viewed as inadequate. Second, the mandatory duties require action every three years. Action in 2017 would allow EPA to reconfirm its position in 2020 and establish a clear practice for the future.
3. <!--[if !supportLists]--><!--[endif]-->Unconventional Oil and Gas (UOG) Extraction Effluent Limitations Guidelines (ELG) – EPA finalized UOG Extraction ELG for discharges to Publicly Owned Treatment Works (POTW) in June 2016. These ELG should be based on a technology standard – Best Available Technology Economically Achievable (BATEA). EPA concluded that all discharges to POTW should be prohibited based on the availability of underground injection wells and of recycling options. Neither of these are BATEA. EPA should not be making zero discharge determinations based on its perception of other options. It should determine BATEA requirements. If the BATEA requirements are too expensive, it should be the dischargers' choice to use alternative approaches.
4. <!--[if !supportLists]--><!--[endif]-->Clean Air Act Enforcement Tactics – Over the past several years, EPA's Enforcement tactics have been excessively aggressive. For example, in North Dakota where the state did not have delegation of the NSPS program for oil and natural gas production, EPA Enforcement initiated direct actions against producers with regard to its interpretation of Subpart OOOO requirements for storage vessels. This interpretation differed from those EPA technical staff had initially indicated. Using its enforcement power, EPA filed proposed penalties against a privately held producer that exceeded the value of its assets. The purpose was clear and predictable. EPA wanted to use its enforcement power to compel a limited asset company to enter into a consent agreement that would require actions that met Enforcement's interpretation of the regulation and to commit to additional actions that were beyond EPA Clean Air Act authority to require. Not only did EPA use a gap in state delegation to

step over North Dakota in its zeal, but these types of enforcement tactics reflect poorly on EPA and the federal government and should be ended.

5. <!--[if !supportLists]--><!--[endif]-->Ozone National Ambient Air Quality Standards (NAAQS) Revisions – The 2014 revision to the Ozone NAAQS should be reconsidered. Implementation of the 2008 revision to the Ozone NAAQS had yet to be implemented and evaluated when the 2014 revision was finalized. NAAQS attainment should be the target, not promulgating new, unachievable revisions. EPA's own data showed that the same areas it projected to fail to attain the 2008 NAAQS would fail to meet the 2014 revision. In those areas, the regulatory requirements would not change but the 2014 revision would bring new areas into nonattainment regulation. Even though EPA predicted those new areas would reach the 2014 NAAQS without additional local controls, those areas would be subject to new source permitting requirements that hamper their economic development. Where there is no compelling health benefit from a NAAQS revision – like the 2014 action – EPA should devote resources to attainment of the prior standard.

Thanks for considering this request. Please let me know how to proceed from here.
Lee Fuller

Message

From: Birsic, Michael J. [mjbirsic@marathonpetroleum.com]
Sent: 7/13/2018 12:31:45 AM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
Subject: Re: [EXTERNAL] Re: Got a second to chat today or tomorrow?

Thank you!

On Jul 12, 2018, at 7:37 PM, Bolen, Brittany <bolen.brittany@epa.gov> wrote:

> Sure, Mike. I have time tomorrow morning 930-1045. Work cell is Ex. 6
>
> Sent from my iPhone
>
> On Jul 12, 2018, at 3:13 PM, Birsic, Michael J. <mjbirsic@marathonpetroleum.com> wrote:
>
> > If so, what is the best number to reach you?
> >
> > Michael Birsic
> > Marathon Petroleum Corporation
> > 1201 F Street, NW, Suite 625
> > Washington, DC 20004
> > Direct Ex. 6
> > Cell: Ex. 6
> > Fax: 202-442-2492
> > mjbirsic@marathonpetroleum.com

Message

From: Aramco Services Company [washdcevents@aramcoservices.com]
Sent: 3/19/2018 12:51:28 PM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
Subject: Attend Aramco Services Company Cocktail Reception

ARAMCO SERVICES COMPANY
CORDIALLY INVITES YOU TO A

COCKTAIL RECEPTION

IN HONOR OF THE 2018 SAUDI ARAMCO
MANAGEMENT DEVELOPMENT SEMINAR PARTICIPANTS

aramco

When
Tuesday, April 17, 2018 from
6:00 PM to 8:00 PM EDT
Add to Calendar

Where
Aramco
1667 K Street NW
Suite 1200
Washington, DC 20006

Driving Directions

Register Now!

I can't make it

Thank you for your response and we look forward to seeing you on Tuesday, April 17, 2018.

Sincerely,

Jack Moore
Director
Aramco Washington, DC Office

If you have any questions regarding the event, please contact Theadora Stowe, washdcevents@aramcoservices.com (202) 223-7750.

Please RSVP by April 9.
Business Attire

Aramco
(202) 223-7750

Aramco Services Company, 1667 K Street NW, Suite 1200, Washington, DC 20006

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Message

From: Fortney, Catherine M. [CFortney@peabodyenergy.com]
Sent: 4/27/2018 4:57:10 PM
To: Fortney, Catherine M. [CFortney@peabodyenergy.com]
Subject: Invitation to Peabody Cocktail Reception on May 15th

Importance: High

Peabody

The World Coal Association, based in London, is hosting a policy forum in Washington, DC, on May 15, to review the challenges, opportunities, and priorities for advancing clean energy technologies. Peabody Energy cordially invites you to join us for a kick-off reception the night before the policy forum. The rooftop reception will be held on May 15, 2018, at our new offices at 325 7th Street NW, Washington, DC from 5:30pm-7:30pm. You will need to show government-issued identification to attend the event.

Please RSVP to Cathy Fortney at CFortney@peabodyenergy.com

Best Regards,

Michael

This event is a reception under the House and Senate ethics rules. Executive branch employees should contact their agency ethics official to determine whether this event qualifies as a reception or widely attended gathering.

Michael Flannigan
Senior Vice President, Global Government Affairs
Peabody
325 7th Street, NW, Suite 510
Washington, DC 20004
Office Phone: Ex. 6 | Cell: Ex. 6
mflannigan@peabodyenergy.com

Peabody

Message

From: Aramco Services Company [washdcevents@aramcoservices.com]
Sent: 4/11/2018 8:33:21 PM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
Subject: Reminder! Attend Aramco Services Company Cocktail Reception

ARAMCO SERVICES COMPANY
CORDIALLY INVITES YOU TO A

COCKTAIL RECEPTION

IN HONOR OF THE 2018 SAUDI ARAMCO
MANAGEMENT DEVELOPMENT SEMINAR PARTICIPANTS

aramco

When
Tuesday, April 17, 2018 from
6:00 PM to 8:00 PM EDT
Add to Calendar

Where
Aramco
1667 K Street NW
Suite 1200
Washington, DC 20006

Driving Directions

Register Now!

I can't make it

Thank you for your response and we look forward to seeing you on Tuesday, April 17, 2018.

Sincerely,

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Director
Aramco Washington, DC Office

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Please RSVP by April 9.
Business Attire

Aramco
(202) 223-7750

Aramco Services Company, 1667 K Street NW, Suite 1200, Washington, DC 20006

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Message

From: Fortney, Catherine M. [CFortney@peabodyenergy.com]
Sent: 5/2/2018 4:29:07 PM
To: Fortney, Catherine M. [CFortney@peabodyenergy.com]
Subject: REMINDER: Ray Shepherd Invites you to Peabody's Cocktail Reception on May 15th

Importance: High

Greetings! The following message is being sent to you on behalf of Mr. Ray Shepherd.

The World Coal Association, based in London, is hosting a policy forum in Washington, DC, on May 16, to review the challenges, opportunities, and priorities for advancing clean energy technologies. Peabody Energy cordially invites you to join us for a kick-off reception the night before the policy forum. The rooftop reception will be held on May 15, 2018, at our new offices at 325 7th Street NW, Washington, DC from 5:30pm-7:30pm. You will need to show government-issued identification to attend the event.

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Best Regards,

Ray

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Ray Shepherd
Vice President and Senior Counsel, Federal Government Relations
Peabody
325 7th Street, NW, Suite 510
Washington, DC 20004
Office Phone: Ex. 6 | Cell Ex. 6
rayshepherd@peabodyenergy.com

Message

From: Stephen Fotis [scf@vnf.com]
Sent: 9/22/2017 2:50:16 PM
To: Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]; Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
CC: 'John Di Stasio (john@lppc.org)' [john@lppc.org]; Janet Anderson [jma@vnf.com]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]
Subject: RE: LPPC Follow-up on Addressing LPPC Envrionmental Task Force on Tuesday October 24

Mandy and Brittany – I'm following up on our request for you to address the LPPC Environmental Task Force at our upcoming meeting in WDC on Tuesday, October 24. As we discussed during our meeting in late August, LPPC can be a valuable resource for you and the Agency in providing useful policy and technical guidance on key environmental regulatory issues. One area where we'd like to work collaboratively with the Agency is in the development of a possible replacement rule to the Clean Power Plan. To that end, we would like to have one of you, or your staff, to address the members of the LPPC Environmental Task Force on the possibility of the Agency adopting a CPP replacement rule. We would propose to keep the format very informal, whereby you would make a few brief opening remarks and then answer questions that task force members may have. We also would propose to schedule something in the morning of October 24, but can be very flexible on the time in order to accommodate your schedules.
Many thanks,
Stephen

Stephen Fotis
Partner
Van Ness Feldman LLP
scf@vnf.com
Ex. 6

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From: Stephen Fotis
Sent: Wednesday, August 23, 2017 10:11 AM
To: Gunasekara, Mandy (Gunasekara.Mandy@epa.gov); bolen.brittany@epa.gov
Cc: John Di Stasio (john@lppc.org); Janet Anderson; Citta, Joe
Subject: LPPC Follow-up

Mandy and Brittany,
I want to thank both of you for making time on Monday to meet with John Di Stasio, Janet Anderson, and me regarding the Large Public Power Counsel (LPPC). We believe that LPPC can be a valuable resource for you and EPA in providing useful policy and technical guidance on key environmental regulatory issues. As discussed during our meeting, our mission is not to rehash past legal or policy issues, but rather to work collaboratively with you and your staff to ensure the effectiveness and workability of the regulatory proposals that the agency is advancing. To that end, I will be sending shortly to you by a separate email a short briefing paper on some of the air regulatory barriers to the electrification of the transportation sector under the Clean Air Act. We hope that this may be one area where we might be able to work together with you and your staff. In addition, we would like to get Tuesday, October 24 on your calendar. As we discussed during our meeting, the LPPC Environmental Task Force is meeting in WDC on this day and we would love for

you (or other appropriate EPA person) to address the task force. We can be very flexible on timing as well as what you'd like to discuss – although I suspect a discussion on the CPP replacement rule may turn out to be very timely.
Best regards,
Stephen

Stephen Fotis
Partner
Van Ness Feldman LLP
scf@vnf.com
Ex. 6

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Message

From: Birsic, Michael J. (MPC) [mjbirsic@marathonpetroleum.com]
Sent: 12/21/2017 4:45:04 PM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
CC: Dravis, Samantha [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ece53f0610054e669d9dffe0b3a842df-Dravis, Sam]; mcaravelli@balch.com
Subject: Re: [EXTERNAL] Non-discretionary review periods in the CAA.

Thanks Brittany! Hope you all have a Merry Christmas.

> On Dec 21, 2017, at 9:54 AM, Bolen, Brittany <bolen.brittany@epa.gov> wrote:
>
> Directions: Please use the William Jefferson Clinton North Entrance located on your right as you exit the Federal Triangle Metro Station. Please arrive 10 minutes prior to the meeting with photo IDs to clear Security.
>
> EPA Contact: For an escort from Security to the meeting call (202) 564-4332; for all other matters call Robin Kime (202)564-6587.
>
>
>
>
> From: Birsic, Michael J. (MPC) [mailto:mjbirsic@marathonpetroleum.com]
> Sent: Thursday, December 14, 2017 2:12 PM
> To: Bolen, Brittany <bolen.brittany@epa.gov<mailto:bolen.brittany@epa.gov>>
> Cc: Margaret Caravelli (Balch & Bingham) <mcaravelli@balch.com<mailto:mcaravelli@balch.com>>
> Subject: Meeting Request
>
> Hi Brittany,
>
> I hope you are doing well. We wanted to reach out to see if you had time to get together the first or second week of January to talk about non-discretionary review periods in the CAA.
>
> Thank you in advanced for your consideration and we hope to see you soon.
>
> Merry Christmas,
>
> Birsic
>
> Michael Birsic
> Marathon Petroleum Corporation
> 1201 F Street, NW, Suite 625
> Washington, DC 20004
> Direct: Ex. 6
> Cell: Ex. 6
> Fax: 202-442-2492
> mjbirsic@marathonpetroleum.com<mailto:mjbirsic@marathonpetroleum.com>
>
>
> <meeting.ics>

Message

From: Birsic, Michael J. (MPC) [mjbirsic@marathonpetroleum.com]
Sent: 4/24/2018 11:41:48 AM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
Subject: NSR Guidance Documents

Brittany,

I hope you are doing well! I have a quick question for you, do you know if EPA has sent the NSR memo's (i.e. guidance) to Congress?

Mike

Michael Birsic
Marathon Petroleum Corporation
1201 F Street, NW, Suite 625
Washington, DC 20004
Direct: Ex. 6
Cell: Ex. 6
Fax: 202-442-2492
mjbirsic@marathonpetroleum.com

Message

From: Amy S. Plaster [AMY.PLASTER@cmsenergy.com]
Sent: 11/3/2017 1:54:51 AM
To: Fisher, Emily [EFisher@eei.org]; Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
CC: Kiran L. Malone [Kiran.Malone@cmsenergy.com]
Subject: RE: CMS Meeting on Superfund Site/Visit to Pumped Hydro Storage Facility

Thank you for the e-mail and introduction, Emily. Brittany, we would appreciate an opportunity to touch base on these two items. Thanks! Amy

Amy Plaster
CMS Energy
Ex. 6 (O)
(C)

From: Fisher, Emily [mailto:EFisher@eei.org]
Sent: Thursday, November 2, 2017 11:47 AM
To: Bolen.brittany@epa.gov
Cc: Amy S. Plaster; Kiran L. Malone
Subject: CMS Meeting on Superfund Site/Visit to Pumped Hydro Storage Facility

Email sent from outside of CMS/CE. Use caution before clicking links/attachments.

Good morning, Brittany,

EEI appreciated Samantha Dravis's participation in our External Affairs conference last week. During her remarks, she highlighted, among other things, the Administrator's interest in Superfund Sites and his interest in visiting energy infrastructure in the U.S. EEI member CMS, which is located in Michigan, would appreciate the opportunity to talk to you about a Superfund Site issue in Michigan and would like to extend an invitation to EPA to visit their pumped hydro storage facility. I've copied Amy Plaster and Kiran Malone from CMS's Washington office on this e-mail so that they can continue this conversation with you and answer any questions that you may have. Thank you.

Best regards,

Emily Fisher

Emily Sanford Fisher
Vice President, Law
Corporate Secretary
701 Pennsylvania Avenue, N.W.
Washington, D.C. 20004-2696
Ex. 6
www.eei.org

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Message

From: Fisher, Emily [EFisher@eei.org]
Sent: 11/2/2017 3:47:05 PM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
CC: Amy S. Plaster (AMY.PLASTER@cmsenergy.com) [AMY.PLASTER@cmsenergy.com]; Kiran L. Malone [Kiran.Malone@cmsenergy.com]
Subject: CMS Meeting on Superfund Site/Visit to Pumped Hydro Storage Facility

Good morning, Brittany,

EEI appreciated Samantha Dravis's participation in our External Affairs conference last week. During her remarks, she highlighted, among other things, the Administrator's interest in Superfund Sites and his interest in visiting energy infrastructure in the U.S. EEI member CMS, which is located in Michigan, would appreciate the opportunity to talk to you about a Superfund Site issue in Michigan and would like to extend an invitation to EPA to visit their pumped hydro storage facility. I've copied Amy Plaster and Kiran Malone from CMS's Washington office on this e-mail so that they can continue this conversation with you and answer any questions that you may have. Thank you.

Best regards,

Emily Fisher

Emily Sanford Fisher
Vice President, Law
Corporate Secretary
701 Pennsylvania Avenue, N.W.
Washington, D.C. 20004-2696

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Message

From: Allen Jamerson [AJamerson@bockornygroup.com]
Sent: 9/7/2017 2:17:31 PM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
CC: Spencer Pederson [spederson@bockornygroup.com]; Inge, Carolyn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7f763e42702a4f468cdf42323ee94520-Cinge]
Subject: Re: Intro

Thank you, Brittany!

Carolyn, let me know if you have any availability tomorrow (Friday) for a call. I really appreciate you taking the time.

Thanks,

Allen

Sent from my iPhone

On Sep 7, 2017, at 7:13 AM, Bolen, Brittany <bolen.brittany@epa.gov> wrote:

> Hi Spencer, thanks for your email. I'm not aware of any grant issues being run out of OP, but happy connect with Allen and put him in touch with a colleague. Allen, please follow-up with Carolyn Inge (CC'd) to schedule a call.
> Thanks,
> Brittany
>
> On Sep 5, 2017, at 4:58 PM, Spencer Pederson <spederson@bockornygroup.com> wrote:
>
>> Hi Brittany,
>> Sorry to hit you with back to back emails but I want to quickly introduce you to my colleague Allen Jamerson (cc'd)—you may remember him from your House days when he was with House Judiciary Committee or Leader Cantor's Office. He has an EPA grant issue that we believe is being handled out of the Office of Policy so I thought you would be the right person for him to check in with. If not, can you please point him in the right direction? Thanks so much!
>>
>> Have a good week and talk soon!
>>
>> Spencer
>>
>> Spencer Pederson
>> BOCKORNYGROUP
>> 1350 I Street, NW, Suite 800
>> Washington, DC 20005
>> o Ex. 6
>> d
>> www.bockornygroup.com

Message

From: Shea, Quin [QShea@eei.org]
Sent: 3/20/2018 2:43:54 PM
To: Shaw, Nena [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2ae00b27ec1544ef8331567ce532bdd3-Shaw, Nena]
CC: Letendre, Daisy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b691cccca6264ae09df7054c7f1019cb-Letendre, D]; Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]; Dravis, Samantha [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ece53f0610054e669d9dffe0b3a842df-Dravis, Sam]; Moeller, Phil [PMoeller@eei.org]
Subject: RE: Thank You

Hi Nena, and thanks for the note. We appreciated last week's chat and are thinking more about opportunities for EEI to engage OP on specific policy issues, as well as your office's increasing ability to occasionally break through bureaucratic logjams. We're also considering potential candidates for electric sector site visits by EPA team members, so do give us your thoughts on agency priorities.

Separately, the Administrator was at EEI's offices this morning and Tom Kuhn and I managed to sequester him for about 10 minutes. We covered a range of near-term policy items, but I also made a point of mentioning our meeting last week and EEI's perceptions regarding the overall value of the Sectors initiative. The Administrator was very bullish and had his talking points down pat! And, I put in a strong plug for OP generally and the great work that you, Daisy, Sam, Brittany and the rest of the OP team are doing on myriad issues.

Let's stay in touch, and please never hesitate to reach out. Best, Quin

From: Shaw, Nena [mailto:Shaw.Nena@epa.gov]
Sent: Thursday, March 15, 2018 6:52 PM
To: Shea, Quin <QShea@eei.org>
Cc: Viator, Brad <BViator@eei.org>; Smith, Jason <JSmith@eei.org>; Fisher, Emily <EFisher@eei.org>; Mohammed, Riaz <rmohammed@eei.org>; Moeller, Phil <PMoeller@eei.org>; Letendre, Daisy <letendre.daisy@epa.gov>
Subject: Thank You

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Quin –

Daisy and I wanted to take a minute to thank you and your team for your time yesterday. It was great to share all that has been going on with Smart Sectors, but, more importantly, to hear from you all about the issues that you are thinking about with respect to the utility sector broadly. We look forward to future discussions on site visits so that we can learn more about the sector.

Thanks again!

Best, Nena

Nena Shaw

Senior Advisor
Office of Policy
(O) 202-564-5106

Message

From: Citta Jr., Joseph L. [jlcitta@nppd.com]
Sent: 8/23/2017 7:17:21 PM
To: 'Stephen Fotis' [scf@vnf.com]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]; Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
CC: DiStasio,, John- LPPC [john@lppc.org]; Janet Anderson [jma@vnf.com]
Subject: RE: LPPC Follow-up

Thanks again for your time and for making arrangements so I could join in.
Looking forward to more conversations!
Regards,

Joe L. Citta Jr.
Corporate Environmental Manager
Nebraska Public Power District
Ex. 6 / (402) 563-5168 fax
cell- Ex. 6

Please consider the environment before printing this email.

From: Stephen Fotis [mailto:scf@vnf.com]
Sent: Wednesday, August 23, 2017 9:11 AM
To: Gunasekara, Mandy (Gunasekara.Mandy@epa.gov); bolen.brittany@epa.gov
Cc: DiStasio,, John- LPPC; Janet Anderson; Citta Jr., Joseph L.
Subject: LPPC Follow-up

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Mandy and Brittany,
I want to thank both of you for making time on Monday to meet with John Di Stasio, Janet Anderson, and me regarding the Large Public Power Counsel (LPPC). We believe that LPPC can be a valuable resource for you and EPA in providing useful policy and technical guidance on key environmental regulatory issues. As discussed during our meeting, our mission is not to rehash past legal or policy issues, but rather to work collaboratively with you and your staff to ensure the effectiveness and workability of the regulatory proposals that the agency is advancing. To that end, I will be sending shortly to you by a separate email a short briefing paper on some of the air regulatory barriers to the electrification of the transportation sector under the Clean Air Act. We hope that this may be one area where we might be able to work together with you and your staff. In addition, we would like to get Tuesday, October 24 on your calendar. As we discussed during our meeting, the LPPC Environmental Task Force is meeting in WDC on this day and we would love for you (or other appropriate EPA person) to address the task force. We can be very flexible on timing as well as what you'd like to discuss – although I suspect a discussion on the CPP replacement rule may turn out to be very timely.
Best regards,
Stephen

Stephen Fotis
Partner
Van Ness Feldman LLP
scf@vnf.com
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Message

From: Nolan, Rich [RNolan@nma.org]
Sent: 8/28/2017 2:39:58 PM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
Subject: WSJ LTE
Attachments: WSJ LTE Coal Comeback Aug. 28, 2017.pdf

Rich Nolan
Senior Vice President, Government and Poiltical Affairs
National Mining Association
101 Constitution Ave. NW, Suite 500 East
Washington, D.C. 20001
Phone: (202) 463-2600
Direct Ex. 6
rnolan@nma.org

THE WALL STREET JOURNAL.

• OPINION
LETTERS

Old King Coal May Rightly Be Merry Again

The Trump administration's prompt attention to reset the regulatory framework for coal will allow the industry to perform to its true potential.

Miners ride a mantrip shuttle out of a mine entrance at the newly opened Ramaco Resources Inc. Stonecoal Alma mine near Wylo, West Virginia, U.S., on Tuesday, Aug. 8, 2017 PHOTO: BLOOMBERG NEWS

Aug. 27, 2017 2:42 p.m. ET

It is refreshing to see an assessment ("Coal Makes a Comeback," Review & Outlook, Aug. 17) recognizing that policy matters greatly, especially when it distorts energy markets. The Obama administration rules on mercury emissions from power plants, for example, had little to do with mercury, and everything to do with shortening the economic life of reliable-baseload coal power plants. Most of the costs—almost $10 billion annually—related to emissions the Environmental Protection Agency admitted posed no harm to public health.

The Trump administration's prompt attention to reset the regulatory framework for coal has indeed instilled confidence that will allow the industry to perform to its true potential. Those who

continue to deny the impact of regulatory policy ignore data from the Energy Information Administration showing that dismantling the Clean Power Plan will preserve 240 million tons of annual coal production. This also means saving tens of thousands of high-wage jobs at coal mines and throughout the coal value supply chain.

Coal serves a major role in ensuring our nation's energy security through a lower cost, more diverse and reliable electricity supply. The prospects of achieving American energy security are dim without fully leveraging the nation's largest single energy resource—coal. They are nonexistent when politically motivated policies are used to obstruct energy supplies.

Hal Quinn
President and CEO
National Mining Association
Washington

https://www.wsj.com/articles/old-king-coal-may-rightly-be-merry-again-1503859332

https://www.wsj.com/article_email/coal-makes-a-comeback-1502926053-lMyQjAxMTE3MjEzNzExMjc0Wj/

Message

From: Atkinson, Emily [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BB2155ADEF6A44AEA9410741F0C01D27-ATKINSON, EMILY]
Sent: 11/7/2017 3:17:29 PM
To: Shea, Quin [QShea@eei.org]
CC: Kime, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ef7b76087a6475b80fc984ac2dd4497-RKime]; Holdsworth, Eric [EHoldsworth@eei.org]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
Subject: Confirmed Today 11/7 at 12:30pm: COP-23 Preparations

Hi Quin,

We can use the call in number outlined below.

Ex. 6

Thanks!
Emily

Emily Atkinson
Management Analyst/Office Manager
Immediate Office of the Acting Assistant Administrator
Office of Air and Radiation, USEPA
Room 5412B, 1200 Pennsylvania Avenue NW
Washington, DC 20460
Voice: 202-564-1850
Email: atkinson.emily@epa.gov

From: Shea, Quin [mailto:QShea@eei.org]
Sent: Tuesday, November 07, 2017 10:09 AM
To: Atkinson, Emily <Atkinson.Emily@epa.gov>
Cc: Kime, Robin <Kime.Robin@epa.gov>; Holdsworth, Eric <EHoldsworth@eei.org>; Dominguez, Alexander <dominguez.alexander@epa.gov>
Subject: Re: COP-23 Preparations

That works for us. Should we call you?

Sent from my iPhone

On Nov 7, 2017, at 8:55 AM, Atkinson, Emily <Atkinson.Emily@epa.gov> wrote:

This email originated from an external sender. Use caution before clicking links or opening attachments. For more information, visit The Grid. Questions? Please contact ITSupport@eei.org or ext. 5100.

Hi Quin,

Today at 12:30pm works for Mandy to have a 20 minute call – could that work on your end?

Emily Atkinson
Management Analyst/Office Manager
Immediate Office of the Acting Assistant Administrator
Office of Air and Radiation, USEPA
Room 5412B, 1200 Pennsylvania Avenue NW
Washington, DC 20460
Voice: 202-564-1850
Email: atkinson.emily@epa.gov

From: Shea, Quin [mailto:QShea@eei.org]
Sent: Monday, November 06, 2017 5:29 PM
To: Dominguez, Alexander <dominguez.alexander@epa.gov>
Cc: Kime, Robin <Kime.Robin@epa.gov>; Holdsworth, Eric <EHoldsworth@eei.org>; Atkinson, Emily <Atkinson.Emily@epa.gov>
Subject: RE: COP-23 Preparations

Thanks Alex, Emily and Robin. Eric and I are pretty wide open tomorrow afternoon and Wednesday morning, which would be optimal as Eric flies out Wednesday evening. Let us know if either of those windows work. Best, Quin

---

From: Dominguez, Alexander [mailto:dominguez.alexander@epa.gov]
Sent: Monday, November 06, 2017 4:38 PM
To: Bolen, Brittany; Shea, Quin
Cc: Gunasekara, Mandy; Dravis, Samantha; Kime, Robin; Holdsworth, Eric; Atkinson, Emily
Subject: RE: COP-23 Preparations

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I am looping in Emily Atkinson in OAR who is who is now assisting with Mandy's scheduling.

Alex

From: Bolen, Brittany
Sent: Monday, November 6, 2017 4:25 PM
To: Shea, Quin <QShea@eei.org>
Cc: Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>; Dravis, Samantha <dravis.samantha@epa.gov>; Kime, Robin <Kime.Robin@epa.gov>; Holdsworth, Eric <EHoldsworth@eei.org>; Dominguez, Alexander <dominguez.alexander@epa.gov>
Subject: Re: COP-23 Preparations

Hi Quin -
Thanks for your email. Mandy and I will arrive in Bonn on the 12th. I'd welcome a call with Eric in advance. Please work with Robin and Alex to find a good time this week for us to connect.

Best,
Brittany

On Nov 3, 2017, at 8:09 AM, Shea, Quin <QShea@eei.org> wrote:

Good morning Mandy and Brittany:

It's my understanding that you will be joining the U.S. delegation for the upcoming COP-23 meetings in Bonn, Germany. EEI and many different member companies routinely have attended these international forums as credentialed participants going back to the 1992 UNCED session. In the course of monitoring these proceedings, we have developed a pretty robust sense of the ever-evolving international policy and political landscape, and that perspective may have some contextual value for you. Let me know if you would be interested in chatting, particularly with our primary point of contact in Bonn, Eric Holdsworth, who is EEI's Senior Director for Climate Programs and is copied on this note.

The EEI delegation will be in Bonn from November 9-16. As part of our standard preparations, we routinely meet with key staff from the White House and various federal agencies that are attending the meetings, to discuss both major policy objectives for the United States and how the electric power sector can be helpful to the U.S. team during these sessions. We already have met with primary State Department contacts, which resulted in a wide-ranging, mutually beneficial discussion that helped paint a better picture for everyone of potential opportunities and challenges on the ground in Bonn.

Once in Bonn, we are organizing a dinner to welcome the Administration team, most likely early during the second week. We hope both of you can attend and will send you a formal invitation once details are finalized.

Given your busy schedules, we would be happy to come to EPA or to convene via teleconference if you are interested in visiting about the Bonn meetings. Thanks in advance for your consideration, and I look forward to hearing from you.

Best, Quin

Quinlan J. Shea, III (Quin)
Vice President, Environment
Edison Electric Institute
701 Pennsylvania Avenue, NW
Washington, DC 20004
Ex. 6
qshea@eei.org

Message

From: IADC Drilling Contractor [drilling.contractor@iadc.org]
Sent: 8/1/2018 8:15:34 PM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]
Subject: [WARNING: SPF validation failed] IADC Drill Bits - August 2018

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DRILLBITS

Monthly Newsletter from the International Association of Drilling Contractors

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- Accreditation
- IADC Committees
- Industry Resources

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- Safety Alerts
- Rigs Receiving ISP certificates
- New IADC Members
- Conferences & Events
- Committee Meetings

ADVOCACY

U.S. Fish and Wildlife Service and NOAA Propose Revisions to the Endangered Species Act

In the 25 July U.S. Federal Register, the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service announced proposed revisions to regulations that implement portions of the Endangered Species Act (ESA). Under the current ESA, species may be listed as either threatened or endangered, with regulations drafted to protect the habitat of an imperiled species.

The proposed revisions are intended to bring clarity and consistency to the implementation of the act's requirements...

READ MORE

U.S. Department of Interior Issues Proposed Draft of Unified Regional Boundaries

In accordance with Executive Order 13781, the U.S. Department of Interior recently submitted reorganization proposals, which includes establishing 12 unified regional boundaries across all DOI bureaus. Currently, DOI has 10 bureaus and 49 regions, each operating with unique regional boundaries. This has inhibited the sharing of resources and discourages a shared frame of geographic reference, resulting in operational and administrative inefficiencies.

The new draft identifies 12 common regions, which will enable better management of watersheds, wildlife corridors and trail systems. Indian reservations, national parks and other significant DOI land management units that cross watersheds and county lines were kept in the same region to promote efficiency. The 12 unified regions will improve coordination of government services, move decision-making closer to the people who utilize the resources and improve coordination between federal, state and local agencies...

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DRILLERSPAC – Political Action Committee (PAC) of IADC

The DRILLERSPAC is now up and running. It was sanctioned by IADC's Board of Directors to further IADC's goal of advocacy engagement with federally elected Members of Congress. DRILLERSPAC is not affiliated with any political party. It is organized and conducted on a voluntary, non-partisan basis. DRILLERSPAC is overseen by the PAC Board of Trustees, which is comprised of 10 members - three from offshore companies, three from onshore companies, two from drilling services companies and two IADC employees...

READ MORE

Washington D.C. Updates

House:

The House is now out on August recess for the next five weeks. Look for your local Congressman in their districts at town halls and other venues. In July the chamber completed the conference report for the National Defense

Authorization Act, Interior Appropriations (which funds BLM and BSEE among other agencies at Interior and the EPA), and a Resolution that a carbon tax would be detrimental to the US.

Senate:

Instead of a five week recess, the Senate will continue to work for at least three of those fives weeks to focus on judicial nominations and appropriations bills. In July, the Senate approved Robert Wilkie as Secretary of Veterans Affairs.

White House:

The President nominated Brett Kavanaugh as an associate member of the Supreme Court, replacing Justice Kennedy. In addition, the President has been very focused on all things trade related, including several proposed tariffs on China and the European Union, among others. Also, NAFTA negotiations have picked back up in earnest with the election of Mexico's new President.

READ MORE

INDUSTRY NEWS

IADC Donates Drilling Matters Kiosk to Ocean Star Rig Museum

IADC recently donated a kiosk loaded with interactive educational information about the upstream oil and gas industry to the Ocean Star Offshore Drilling Rig Museum and Education Center in Galveston, Texas.

The kiosk content includes an interactive drilling rig, a 3D game and narrated videos, along with basic information about drilling equipment and operations, the importance of hydrocarbons in fueling the global economy, facts about industry safety and environmental stewardship and more. The material contained in the kiosk mirrors that contained online at IADC's Drilling Matters website.

"The Ocean Star Museum is very important in educating the public about the benefits of our industry, and IADC is proud to support their mission," remarked IADC President Jason McFarland. "IADC's Drilling Matters project neatly dovetails with the work of the Ocean Star Museum and the Offshore Energy Center. We are confident that many museum visitors will enjoy and benefit from the content on the new kiosk."...

READ MORE

IADC Australasia Chapter Issues 2017 Safety Awards

On 16 May, the IADC Australasia Chapter presented its members with Safety Awards for 2017.

The Award Program is open to all onshore and offshore members with a winner designated for each area. 9 of 11 IADC Australasia chapter member companies participated, resulting in an uptake rate of 81%, which was higher than previous years. The safety statistics for the participating companies were supplied quarterly and submitted in accordance with the 2017 ISP IADC Official Rules and Guidelines. Again this year the IADC ISP Program was able to support the Chapter's Award Program by supplying the data and winner notification. This has enabled the award program to continue at a significantly reduced cost whilst maintaining the confidentiality requirements...

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BSEE Extends Deadline for Comments on Blowout Preventer Systems and Well Control Revision Proposed Rule

On 5 July, BSEE issued a notice to extend its deadline for comments on the Blowout Preventer Systems and Well Control Revision Proposed Rule to 6 August. Though a joint trade association is being finalized between API, NOIA, PESA, IPAA, OOC, US Oil & Gas and IADC, all stakeholders are encouraged to individually submit comments as considered necessary and appropriate...

READ MORE

U.S. Energy Information Administration Releases International Energy Outlook 2018

The U.S. Energy Information Administration (EIA) recently released their International Energy Outlook 2018, which focuses on how different drivers of macroeconomic growth may affect international energy markets. The report focuses on three heavily populated and high economic growth regions of the world: China, India and Africa. To perform the analysis, the EIA updated the IEO2017 Reference case with new macroeconomic information and varied macroeconomic assumptions to create side cases for each region...

READ MORE

Colorado Oil and Gas Conservation Commission Issues Impact Assessment on Colorado Ballot Initiative #97

In January 2018, Colorado Ballot Initiative #97 was received by the Colorado Secretary of State. The initiative would designate a 2500-foot buffer zone around "occupied structure" and "vulnerable areas", and it is currently in the signature-collecting phase for inclusion on the November ballot.

The Colorado Oil and Gas Conservation Commission put together an impact assessment on the initiative, the most salient points of which include...

READ MORE

Concerned Groups Issue Petition to OSHA Regarding Occupational Exposure to Excessive Heat

In early June, a petition was submitted to OSHA in support of initiating a rulemaking process for the first federal standard that would protect outdoor and indoor U.S. workers from occupational exposure to excessive heat.

The petition was submitted by Public Citizen, a consumer and health advocacy group with more than 500,000 members, and includes the following supporters: former OSHA directors Eula Bingham and David Michaels, former CalOSHA director Ellen Widess, U.S. Davis heat expert Dr. Marc Schenker and 131 organizations and 89 other individuals...

READ MORE

Norway's Accident Investigation Board Reports on Air Accident Near Turøy, Øygarden Municipality

Norway's Accident Investigation Board's investigation into the crash of the Airbus EC225 LP Super Puma helicopter that occurred on 29 April 2016 has been concluded. The findings of the investigation revealed that the accident resulted from a fatigue fracture in one of the eight second stage planet gears in the epicyclic module of the main rotor gearbox. See here for an informative video documentary illustrating the investigation results along with the report...

READ MORE

U.S. Department of Interior Announces Gulf of Mexico Lease Sale

On 12 July, the U.S. Department of Interior announced that the Bureau of Ocean Energy Management (BOEM) will make available for lease action approximately 78 million acres of offshore areas adjacent to Texas, Louisiana, Mississippi, Alabama and Florida. Scheduled for 15 August, this forthcoming auction incudes all available unleased areas in the federal waters of the Gulf of Mexico...

READ MORE

UK Oil and Gas Authority Announces Production Efficiency Gains

The UK Oil and Gas Authority recently issued a report, UKCS Production Efficiency in 2017, which found that production efficiency on the UK Continental Shelf has improved for a fifth consecutive year, rising to 74%. The 1% improvement from 2015 helped contribute an additional 12 million barrels of oil equivalent (boe) in 2017.

Key points in the report include...

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International Regulators Forum Calls on Industry to Further Enhance Offshore Safety During Annual General Meeting

The International Regulators Forum (IRF) Annual General Meeting was convened in Aberdeen, Scotland on 7-8 June. Attended by representatives from all 10 member countries, the common theme for the conference is that opportunities persist in leveraging step change initiatives to continue to improve safety performance. Such opportunities are recognized in other industries' practices, enhanced data collection and sharing efforts, and continuing to reflect on past incidents to sustain and refine current safety cultures. Industry and standards development organizations in attendance at the meeting included ISO, IOGP and IADC...

READ MORE

IADC Headquarters Has Relocated

IADC has moved! The IADC Houston office opened the doors to its new headquarters on 2 July, 2018.

The new IADC headquarters is located at 3657 Briarpark Drive, a mere half a mile from the old building. It offers a brand new, custom-designed office space, and modern meeting facilities that offer significant value to IADC's members...

READ MORE

ACCREDITATION & CREDENTIALING

IADC Accreditation Department Successfully Passes ISO 9001:2015 Recertification Audit

In February, IADC's Accreditation Department successfully passed the ISO 9001:2015 recertification audit with zero findings and an added commendation for improvement since the previous year's audit.

The ISO 9001 family addresses various aspects of quality management and contains some of ISO's best-known standards, which provide guidance and tools for companies and organizations that want to ensure that their products and services consistently meet customer's requirements. ISO 9001:2015 sets out the criteria for a quality management system and is the only standard in the family that can be certified to. This standard is based on a number of quality management principles including a strong customer focus, the motivation and implication of top management, the process approach and continual improvement...

READ MORE

IADC Prepares to Roll Out WellSharp Well Servicing Accreditation in 2018

This spring, IADC will roll out the new WellSharp Well Servicing Accreditation which will replace the old WellCAP well servicing courses. The new accreditation will offer four standalone course options, which include coiled tubing; snubbing; wireline and workover. It also introduces two new courses, which include Subsea Supplement and Oil and Gas Operator Representative Workover & Intervention Well Control...

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IADC COMMITTEES

Minutes From 6/13 IADC DEC Tech Forum, "New Age in Drilling" Now Available

The IADC Drilling Engineers Committee's 13 June Technology Forum, "The New Age in Drilling", focused on how the generational changing of the guard impacts development of new technology, refinement of business models, and the perspective of drilling professionals

The event was hosted by National Oilwell Varco at its facility at 10353 Richmond Ave in Houston,

The agenda featured five up-and-coming drilling technologists to present their perspectives on technology, decision making and more. In lieu of individual Q&A, the speakers participated in a panel following all presentations.

In addition, spokespersons for DEC joint industry will provided updates on their work, and a proposal was made for a new JIP.

DEC Advisory Board Member Robin Macmillan of National Oilwell Varco opened the meeting, welcomed the attendees and reviewed the agenda...

READ MORE

SPE to Host Enhancing HSE Performance for Drilling Operations Workshop

SPE will host a 3-day workshop, Enhancing HSE Performance for Drilling Operations, on August 14-15 at the Anadarko Tower in the Woodlands, outside of Houston, Texas.

IADC representatives will be on hand to present on Drilling Matters, IADC's multimedia educational website...

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IADC ISP Plaques Showcase Company Safety Record

Safety should not be competitive in the drilling industry, but bragging rights always are!

You have worked hard to build an impressive safety record. Your employees pay close attention to ensure that they work safely.

Let your customers know about it. IADC ISP plaques are a stand-out way to ensure the world knows how successful your accident prevention program is.

IADC has two types of ISP plaques available. The Executive Grade: Bronze-tone safety excellence medallion on a red velvet background with gold engraved text on a raised bronze-tone plate. Supreme Grade: Laser engraved text with company name, rig name or number and IADC logo in raised gold lettering. Both plaques include company name, rig name or number with the numbers of years without a Lost time or recordable incident...

READ MORE

Add a *DrillingMatters.org* Link to Your Website

Show the browsers to your website that Drilling Matters to you. IADC's DrillingMatters.org is an educational tool designed to dispel myths and misconceptions about the petroleum industry, and demonstrate the value of our industry to humanity.

We encourage IADC members to post a link to www.DrillingMatters.org on their websites. IADC will be happy to provide a reciprocal link on www.DrillingMatters.org...

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IADC Lexicon Featured Term for July 2018

The IADC Lexicon (IADCLexicon.org) is a compendium of upstream-related terms, which, unlike conventional glossaries, are official definitions drawn from legislation, regulation and regulatory guidance, standards (global, national and regional), and IADC guidelines. Terms often have multiple definitions from different sources.

Check out the new Random Term Generator.

This month's Featured Term is:

"Environment Plan" (***Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Statutory Rules 1999 No. 228 as amended), Australia, prepared on 1 January 2012)*** :

Environment plan, in relation to an operator of an activity, means an environment plan submitted by the operator that is:

ıccepted and revised from time to time under these Regulations; but does not include:
f the environment plan is accepted in part — that part of the plan that is not accepted; or
ın environment plan for which the acceptance has been withdrawn.

(click the link to read the full definition on the IADC Lexicon.)

READ MORE

IADC CONFERENCES

Upcoming Conferences

Call for Abstracts Expires Soon!

- IADC Drilling HSE&T Asia Pacific 2019 Conference & Exhibition
  When: Tuesday, 22 Jan, 2019 - Wednesday, 23 Jan, 2019
  Venue: INSTEP Training Institute

- **IADC Health, Safety, Environment & Training Conference & Exhibition**
  When: Tuesday, 5 Feb, 2019 - Wednesday, 6 Feb, 2019
  Venue: Omni Houston Hotel - West Houston

- **IADC Drilling Caspian 2019 Conference & Exhibition**
  When: Wednesday, 20 Feb, 2019 - Thursday, 21 Feb, 2019
  Venue: Hilton Baku

For the complete IADC Conference calendar visit: www.iadc.org/events

Accreditation Updates

RigPass

- **Missouri University of Science & Technology**; USA (Conditional)
- **Tamkene Saudi Training Center**; Saudi Arabia (Conditional);
- **Alam Al-Sahara Training Company**, Saudi Arabia (Conditional);
- **Keane Group**, USA (Conditional);
- **Steel Energy Services**, USA (Conditional)

WellSharp

- **Alpha Drilling Tech Inc.**, Philippines

Rigs receive ISP certificates

For certificates received since last LTI (in years):

- PV Drilling: PV Drilling VI (3); PV Drilling I (11); PV Drilling VI (5)

For certificates received since last recordable incident (in years):

- **Sidewinder Drilling LLC**: Sidewinder 128 (4)

IADC welcomes new members

IADC welcomes **10** new members:

- **ABERDEEN INSTITUTE FOR PRIVATE TRAINING**, KUWAIT;
- **ACT MASTERS**,DOHA, QATAR;
- **CORE GROUP**, OKLAHOMA CITY, OKLAHOMA, USA;
- **ECM TECHNOLOGIES**, LEEUWARDEN, THE NETHERLANDS;
- **ENERGY EQUIPMENT SERVICES PTE LTD**, SINGAPORE;
- **STRUCTURAL PARTNER S.A. DE C.V.**, VILLAHERMOSA, TABASCO, MEXICO;
- **UNIVERSAL PERFORMANCE CHEMICALS PVT LTD**, NEW DELHI, INDIA;
- **WELLPERFORM**, HOLTE, DENMARK;
- **LASSO DRILLING CORP**, BROOKS, ALBERTA, CANADA;
- **PETROTECH ME FZC**, SHARJAH, UNITED ARAB EMIRATES

Safety Alerts

- **Alert 18-02**: Fatality - Struck by/Caught Between Pipe Handling Catwalk Machine

For the latest safety alerts visit:
www.iadc.org/safety-alerts

IADC Events Calendar - August 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
29	30	31	1 10:30 am IADC DEC Board	2	3	4
5	6	7	8 1:00 pm IADC Supply Chain Committee	9 9:00 am IADC Cybersecurity Committee	10	11
12	13	14	15	16 8:30 am IADC ART Spark Tank	17	18
19	20	21	22	23	24	25
26	27 IADC/SPE Asia Pacific Drilling Technology Conference & Exhibition	28 10:00 am IADC ART BOP Controls Subcommittee	29	30	31	1

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If you no longer wish to receive email notifications from *Drilling Contractor*, please click here .

Message

From: Bolen, Brittany [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=31E872A691114372B5A6A88482A66E48-BOLEN, BRIT]
Sent: 7/24/2018 10:46:32 PM
To: Higley, Stephen D. [sdhigley@marathonpetroleum.com]
Subject: RE: Brittany Bolen has been appointed to serve as the Associate Administrator (AA) for the Office of Policy

Thanks, Steve! Good to see you, too.

From: Higley, Stephen D. [mailto:sdhigley@marathonpetroleum.com]
Sent: Tuesday, July 24, 2018 1:53 PM
To: Bolen, Brittany <bolen.brittany@epa.gov>
Subject: FW: Brittany Bolen has been appointed to serve as the Associate Administrator (AA) for the Office of Policy

Congrats! Good to see you the other day and please let me know if there's anything we can do to be helpful.

Steve

From: Dewey, Amy <Dewey.Amy@epa.gov>
Sent: Tuesday, July 24, 2018 12:45 PM
Subject: Brittany Bolen has been appointed to serve as the Associate Administrator (AA) for the Office of Policy

I am pleased to announce that Brittany Bolen has been appointed to serve as the Associate Administrator (AA) for the Office of Policy (OP), after serving as the acting OP AA since April 2018.

Before moving to her current role, Brittany served for a year as the Deputy Associate Administrator for OP. During her time at EPA, Brittany has played a critical role in leading OP, particularly as the office went through a major reorganization this last spring. Additionally, Brittany serves on EPA's Regulatory Reform Task Force and has testified before Congress on the agency's regulatory reform efforts.

Prior to joining EPA, Brittany worked for several Congressional committees in the Senate and House of Representatives focusing on environmental and regulatory policy. Brittany holds a J.D. from the George Mason University School of Law and a B.A. from the University of Florida.

Please join me in congratulating Brittany on her selection for this role.

Ryan Jackson
Chief of Staff

Message

From: Bolen, Brittany [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=31E872A691114372B5A6A88482A66E48-BOLEN, BRIT]
Sent: 7/12/2018 11:37:26 PM
To: Birsic, Michael J. [mjbirsic@marathonpetroleum.com]
Subject: Re: Got a second to chat today or tomorrow?

Sure, Mike. I have time tomorrow morning 930-1045. Work cell is Ex. 6

Sent from my iPhone

On Jul 12, 2018, at 3:13 PM, Birsic, Michael J. <mjbirsic@marathonpetroleum.com> wrote:

> If so, what is the best number to reach you?
>
> Michael Birsic
> Marathon Petroleum Corporation
> 1201 F Street, NW, Suite 625
> Washington, DC 20004
> Direc Ex. 6
> Cell:
> Fax: 202-442-2492
> mjbirsic@marathonpetroleum.com

Message

From: Bolen, Brittany [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=31E872A691114372B5A6A88482A66E48-BOLEN, BRIT]
Sent: 1/4/2018 9:13:41 PM
To: Birsic, Michael J. (MPC) [mjbirsic@marathonpetroleum.com]
Subject: RE: RMP VPP Paper and Letter

Thank you, Mike. I will share this with the rest of the team.

From: Birsic, Michael J. (MPC) [mailto:mjbirsic@marathonpetroleum.com]
Sent: Thursday, January 4, 2018 11:54 AM
To: Bolen, Brittany <bolen.brittany@epa.gov>
Subject: RMP VPP Paper and Letter

Brittany,

Thanks for your time today. Here are the other documents I said I would send.

Mike

Michael Birsic
Marathon Petroleum Corporation
1201 F Street, NW, Suite 625
Washington, DC 20004
Direc
Cell: Ex. 6
Fax: 202-442-2492
mjbirsic@marathonpetroleum.com

Message

From: Bolen, Brittany [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=31E872A691114372B5A6A88482A66E48-BOLEN, BRIT]
Sent: 12/15/2017 2:18:02 PM
To: Birsic, Michael J. (MPC) [mjbirsic@marathonpetroleum.com]
CC: Margaret Caravelli (Balch & Bingham) [mcaravelli@balch.com]; Carolyn Inge (Inge.Carolyn@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7f763e42702a4f468cdf42323ee94520-Cinge]; William Lovell (lovell.william@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
Subject: RE: Meeting Request

Hi Mike and Margaret,
Thanks for your email. Hope you two are doing well, too. Please work with Carolyn Inge (cc'd) to schedule this meeting.
Merry Christmas to you both, and see you in the New Year.
Brittany

From: Birsic, Michael J. (MPC) [mailto:mjbirsic@marathonpetroleum.com]
Sent: Thursday, December 14, 2017 2:12 PM
To: Bolen, Brittany <bolen.brittany@epa.gov>
Cc: Margaret Caravelli (Balch & Bingham) <mcaravelli@balch.com>
Subject: Meeting Request

Hi Brittany,

I hope you are doing well. We wanted to reach out to see if you had time to get together the first or second week of January to talk about non-discretionary review periods in the CAA.

Thank you in advanced for your consideration and we hope to see you soon.

Merry Christmas,

Birsic

Michael Birsic
Marathon Petroleum Corporation
1201 F Street, NW, Suite 625
Washington, DC 20004
Direct: Ex. 6
Cell: Ex. 6
Fax: 202-442-2492
mjbirsic@marathonpetroleum.com

Message

From: Bolen, Brittany [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=31E872A691114372B5A6A88482A66E48-BOLEN, BRIT]
Sent: 6/6/2017 2:56:18 PM
To: Birsic, Michael J. (MPC) [mjbirsic@marathonpetroleum.com]
CC: Davis, Patrick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7fca02d1ec544fbbbd6fb2e7674e06b2-Davis, Patr]
Subject: RE: RMP

Hi Mike - While RMP is issued under the CAA, it is developed by OLEM – not OAR. I'm connecting you with my colleague, Patrick Davis, who is the political deputy in OLEM.
Thanks,
Brittany

From: Birsic, Michael J. (MPC) [mailto:mjbirsic@marathonpetroleum.com]
Sent: Tuesday, June 6, 2017 9:40 AM
To: Bolen, Brittany <bolen.brittany@epa.gov>
Subject: RMP

First off…progress! I got the right email this time! Pretty sad I need to be proud of myself for using email properly.

I wanted to see if you could help point me in the right direction. Do you know who is handling RMP for the Agency? We wanted to bring some of our folks in to visit in the next couple weeks, as we have some ideas that maybe helpful to the agency in regards to RMP.

Thanks in advanced for your help.

Mike

Michael Birsic
Marathon Petroleum Corporation
1201 F Street, NW, Suite 625
Washington, DC 20004
Direct: Ex. 6
Cell: Ex. 6
Fax: 202-442-2492
mjbirsic@marathonpetroleum.com

Message

From: Bolen, Brittany [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=31E872A691114372B5A6A88482A66E48-BOLEN, BRIT]
Sent: 5/2/2017 3:32:43 PM
To: Walls, Michael [Michael_Walls@americanchemistry.com]
Subject: sorry having trouble with the call in number

Brittany Bolen
Deputy Associate Administrator, Office of Policy
U.S. Environmental Protection Agency
(202) 564-3291
Bolen.Brittany@epa.gov

Message

From: Bolen, Brittany [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=31E872A691114372B5A6A88482A66E48-BOLEN, BRIT]
Sent: 9/20/2017 1:59:56 AM
To: Shepherd, Ray [rayshepherd@peabodyenergy.com]
Subject: Re: Time for quick call tomorrow AM?

Yep, Ex. 6 Best time would be between 9-10. Thanks, Ray.

Sent from my iPhone

> On Sep 19, 2017, at 9:39 PM, Shepherd, Ray <rayshepherd@peabodyenergy.com> wrote:
>
> Yes. Sorry. Was in St. Louis for a couple of days. Your cell best?
>
> Sent from my iPhone
>
>> On Sep 19, 2017, at 8:04 PM, Bolen, Brittany <bolen.brittany@epa.gov> wrote:
>>
>>
>
> _____
>
> E-mail Disclaimer:
> The information contained in this e-mail, and in any accompanying documents, may constitute confidential and/or legally privileged information. The information is intended only for use by the designated recipient. If you are not the intended recipient (or responsible for the delivery of the message to the intended recipient), you are hereby notified that any dissemination, distribution, copying, or other use of, or taking of any action in reliance on this e-mail is strictly prohibited. If you have received this email communication in error, please notify the sender immediately and delete the message from your system.
>

Message

From: Bolen, Brittany [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=31E872A691114372B5A6A88482A66E48-BOLEN, BRIT]
Sent: 9/20/2017 12:04:19 AM
To: Ray Shepherd [rayshepherd@peabodyenergy.com]
Subject: Time for quick call tomorrow AM?

Message

From: Bolen, Brittany [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=31E872A691114372B5A6A88482A66E48-BOLEN, BRIT]
Sent: 5/16/2017 9:19:57 PM
To: Schaaff, Lesley [lschaaff@hess.com]
Subject: RE: Follow-Up Discussion on Reg Reform

Or Carolyn Inge.

From: Bolen, Brittany
Sent: Tuesday, May 16, 2017 5:20 PM
To: 'Schaaff, Lesley' <lschaaff@hess.com>
Subject: RE: Follow-Up Discussion on Reg Reform

Great to see you, too. I talked to Samantha about it and we would very much like to meet with you on this and some of the other items we discussed at the end of the meeting. Thursday is a nightmare scheduling-wise. Friday morning looks better. Do you mind calling Robin? I'll give her a heads up.

From: Schaaff, Lesley [mailto:lschaaff@hess.com]
Sent: Tuesday, May 16, 2017 3:57 PM
To: Bolen, Brittany <bolen.brittany@epa.gov>
Subject: Follow-Up Discussion on Reg Reform

Hi Brittany. It was great to see you today. If you would like any specific follow-up on our meeting or to discuss ideas on how to screen incoming regulatory reform suggestions, Puneet (Chevron) Hilary and I are available to talk Thursday or (preferably) Friday this week. I can work with one of your schedulers if that's easier – just let me know.

L

Lesley Schaaff
Senior Manager, Regulatory Affairs
Government & External Affairs
HESS CORPORATION
Office: Ex. 6
Cell: Ex. 6
lschaaff@hess.com

Message

From: Bolen, Brittany [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=31E872A691114372B5A6A88482A66E48-BOLEN, BRIT]
Sent: 4/13/2017 11:28:15 PM
To: Lee Fuller [lfuller@ipaa.org]
Subject: RE: Regulatory Reform and Other Items

Hi Lee –

Thanks for reaching out. I apologize for the delayed response – I haven't been able to keep up with my inbox. I may have availability to meet towards the end of next week or sometime the following week. I'll have someone from my office reach out to you to schedule a meeting.

Best,

Brittany

Brittany Bolen
Deputy Associate Administrator, Office of Policy
U.S. Environmental Protection Agency
(202) 564-3291
Bolen.Brittany@epa.gov

From: Lee Fuller [mailto:lfuller@ipaa.org]
Sent: Friday, April 7, 2017 4:30 PM
To: Bolen, Brittany <bolen.brittany@epa.gov>
Subject: Regulatory Reform and Other Items

Brittany,

I read that one of your assignments is the regulatory reform task force. Consequently, I wanted to reach out on some issues of concern. I've attached an email that I sent to Ryan Jackson that raises several issues that we would like to discuss. (Separately, we are trying to arrange a meeting for Barry Russell, IPAA's President and CEO with Administrator Pruitt through Sydney Hupp.)

Obviously, events are moving quickly. I know that the Administration filed an abeyance petition on the Subpart OOOOa litigation today. There is an issue there that is related that I'd like to call to your attention. The Subpart OOOOa fugitive emissions program – with its costly Leak Detection and Repair (LDAR) requirements – is scheduled to take effect on June 3. It would be helpful if this requirement, at least, could be stayed while

the Subpart OOOO and OOOOa requirements are being reconsidered since a different approach might be developed. I know there are other provisions that are already in effect that raise similar issues.

I also spoke with Dave Rostker from the SBA Advocacy office regarding LDAR in a small business context where the issues arises in both the Subpart OOOOa and VOC Control Techniques Guidelines context. He suggested reaching out to EPA as well.

Hopefully, we can discuss these issues soon given your schedule.

Thanks for your consideration,

Lee Fuller

From: Lee Fuller
Sent: Thursday, April 6, 2017 2:40 PM
To: Ryan Jackson (Jackson.Ryan@epa.gov) <Jackson.Ryan@epa.gov>
Subject: IPAA Issues at EPA; Possible Meeting

Ryan,

I'm reaching out to you but would be happy if you point me to a preferred contact person.

After the recent Energy Executive Order, IPAA would like to discuss a number of pending issues with EPA.

Barry Russell, IPAA's President and CEO, would like to meet with Administrator Pruitt to introduce himself and IPAA. Barry worked for EPA in the 1970s before coming to IPAA.

The issues that we'd like to discuss relate to several matters.

First, EPA's actions in response to the Energy EO with regard to the methane NSPS (Subparts OOOO and OOOOa) are most important to IPAA. While currently engaged in the litigation opposing the regulations, the pathway to reconsideration and possible revision is critical. IPAA wants to be involved as soon as possible and wants to offer its cooperation.

Second, IPAA strongly supports efforts to expand and enhance delegation of regulatory authority to states. We are looking for options to be helpful in identifying pathways, working with our state cooperating associations to encourage state actions and working with Congress if there are barriers that need to be addressed.

Additionally, following are several other items – mostly directly affecting independent oil and natural gas producers – that we would like to identify as issues that we would hope EPA could address:

1. Control Techniques Guidelines (CTG) – As a part of the Energy Executive Order, EPA is directed to reconsider the oil and natural gas methane New Source Performance Standard (NSPS) – Subparts OOOO and OOOOa. When the Obama Administration proposed the NSPS, it also proposed a CTG for existing sources of Volatile Organic Compounds (VOC) in Ozone nonattainment areas. The CTG was finalized in October 2016. It should be suspended or withdrawn until the NSPS issues are resolved and determinations can be made on the appropriateness of the technology being applied to existing sources. Otherwise, the CTG will be applicable in future State Implementation Plans (SIP).

2. RCRA Subtitle D Consent Decree – EPA agreed to a Consent Decree to settle litigation regarding mandatory duties under RCRA Subtitle D related to making determinations regarding the appropriateness of state oil and natural gas production wastes regulations. EPA has until March 2019 to respond but it should act quickly for two reasons. First, EPA's mandate to act does not require an extensive burden and the longer it takes to act, the more state programs appear to be viewed as inadequate. Second, the mandatory duties require action every three years. Action in 2017 would allow EPA to reconfirm its position in 2020 and establish a clear practice for the future.

3. Unconventional Oil and Gas (UOG) Extraction Effluent Limitations Guidelines (ELG) – EPA finalized UOG Extraction ELG for discharges to Publicly Owned Treatment Works (POTW) in June 2016. These ELG should be based on a technology standard – Best Available Technology Economically Achievable (BATEA). EPA concluded that all discharges to POTW should be prohibited based on the availability of underground injection wells and of recycling options. Neither of these are BATEA. EPA should not be making zero discharge determinations based on its perception of other options. It should determine BATEA requirements. If the BATEA requirements are too expensive, it should be the dischargers' choice to use alternative approaches.

4. Clean Air Act Enforcement Tactics – Over the past several years, EPA's Enforcement tactics have been excessively aggressive. For example, in North Dakota where the state did not have delegation of the NSPS program for oil and natural gas production, EPA Enforcement initiated direct actions against producers with regard to its interpretation of Subpart OOOO requirements for storage vessels. This interpretation differed from those EPA technical staff had initially indicated. Using its enforcement power, EPA filed proposed penalties against a privately held producer that exceeded the value of its assets. The

purpose was clear and predictable. EPA wanted to use its enforcement power to compel a limited asset company to enter into a consent agreement that would require actions that met Enforcement's interpretation of the regulation and to commit to additional actions that were beyond EPA Clean Air Act authority to require. Not only did EPA use a gap in state delegation to step over North Dakota in its zeal, but these types of enforcement tactics reflect poorly on EPA and the federal government and should be ended.

5. Ozone National Ambient Air Quality Standards (NAAQS) Revisions – The 2014 revision to the Ozone NAAQS should be reconsidered. Implementation of the 2008 revision to the Ozone NAAQS had yet to be implemented and evaluated when the 2014 revision was finalized. NAAQS attainment should be the target, not promulgating new, unachievable revisions. EPA's own data showed that the same areas it projected to fail to attain the 2008 NAAQS would fail to meet the 2014 revision. In those areas, the regulatory requirements would not change but the 2014 revision would bring new areas into nonattainment regulation. Even though EPA predicted those new areas would reach the 2014 NAAQS without additional local controls, those areas would be subject to new source permitting requirements that hamper their economic development. Where there is no compelling health benefit from a NAAQS revision – like the 2014 action – EPA should devote resources to attainment of the prior standard.

Thanks for considering this request. Please let me know how to proceed from here.

Lee Fuller

Message

From: Bolen, Brittany [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=31E872A691114372B5A6A88482A66E48-BOLEN, BRIT]
Sent: 4/13/2017 3:23:18 PM
To: Walls, Michael [Michael_Walls@americanchemistry.com]
CC: Kime, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ef7b76087a6475b80fc984ac2dd4497-RKime]
Subject: Re: Change in schedule?

Adding robin this time.

Sent from my iPhone

On Apr 13, 2017, at 11:23 AM, Bolen, Brittany <bolen.brittany@epa.gov> wrote:

> Mike - sorry I've been in back-to-back meetings and got pulled into a last minute meeting off campus. I'm adding Robin to this email to confirm, but it looks like my only availability today is at 5:15. Does that work?
>
> Sent from my iPhone
>
> On Apr 13, 2017, at 10:03 AM, Walls, Michael <Michael_Walls@americanchemistry.com> wrote:
>
>> Brittany, I understand you've been called into another meeting. I just wanted to check if that affects both the 11 a.m. meeting on asbestos and the 11:30 call. For the 11:00 a.m. meeting I had member company representatives travel to DC, and if it's possible to reschedule that for later today that would be great. I know you are dealing with a lot of stuff. Thanks for the clarification. Mike
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Message

From: Bolen, Brittany [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=31E872A691114372B5A6A88482A66E48-BOLEN, BRIT]
Sent: 4/13/2017 2:00:39 PM
To: DuVall, Amy [Amy_Duvall@americanchemistry.com]
CC: Kime, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ef7b76087a6475b80fc984ac2dd4497-RKime]
Subject: Re: Canceled: Alliance for American Innovation - Call: 1-844-740-1264; PIN 738 067 031.

Hi Amy, yes need to reschedule.

Sent from my iPhone

> On Apr 13, 2017, at 9:59 AM, DuVall, Amy <Amy_Duvall@americanchemistry.com> wrote:
>
> Do you need to cancel and reschedule? For some reason this is coming across as a cancellation notice.
>
>> On Apr 13, 2017, at 9:53 AM, Bolen, Brittany <bolen.brittany@epa.gov> wrote:
>>
>> From: Walls, Michael [mailto:Michael_Walls@americanchemistry.com]
>> Sent: Wednesday, April 12, 2017 10:22 AM
>> To: Bolen, Brittany <bolen.brittany@epa.gov<mailto:bolen.brittany@epa.gov>>
>> Cc: Gruber, Mike <mgruber@gmaonline.org<mailto:mgruber@gmaonline.org>>; Zumwalt, Bryan <Bryan_Zumwalt@americanchemistry.com<mailto:Bryan_Zumwalt@americanchemistry.com>>
>> Subject: Conference Call with Alliance for American Innovation, Thursday, April 13, 11:30 a.m.
>>
>> Brittany, thank you for agreeing to meet with the Alliance for American Innovation by conference call on Thursday, April 13, at 11:30 a.m. To participate in the call, dial Ex. 6
>>
>> The Alliance would like to provide a general overview of the issues members have identified in the course of implementation of the Lautenberg Chemical Safety Act. The following agenda outlines with the issues we hope to cover, but we recognize that we only have a short period of your time. If I can provide any additional information in the interim, please let me know. Mike
>>
>> Tentative Agenda for Discussion
>> I. General Introduction – General Focus on TSCA Implementation (Mike Gruber, GMA)
>> II. LCSA Framework Rules
>> a. Inventory Reset
>> b. Prioritization (including questions/comments on pre-prioritization proposal)
>> c. Risk Evaluation (including questions/comments on Risk Assessment Guidance due June 22, 2017)
>> III. First 10 risk evaluations
>> IV. Section 5 – interpretation of statutory requirements and impact on innovation
>> V. Fee Rule
>> VI. EPA Communication
>>
>> <meeting.ics>
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>

Message

From: Bolen, Brittany [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=31E872A691114372B5A6A88482A66E48-BOLEN, BRIT]
Sent: 4/5/2017 5:11:47 PM
To: Blair Larkins [BLarkins@bockornygroup.com]
Subject: RE: Thank-you for meeting last week!

Hi Blair –

Yes, you have the right email address! Thank you for the note. It was great meeting you, too.

Best,

Brittany

From: Blair Larkins [mailto:BLarkins@bockornygroup.com]
Sent: Wednesday, April 5, 2017 11:37 AM
To: Bolen, Brittany <bolen.brittany@epa.gov>
Subject: Thank-you for meeting last week!

Brittany-

Thank you very much for taking time out of your busy schedule to meet Jeff Broin and the POET team. It was great meeting you and Administrator Pruitt. I asked Kenneth for your name as I didn't catch it and you didn't have business cards yet. So I hope I have the correct email address for you.

Thanks again for your time and congratulations on the new job.

Blair

Blair Larkins
BOCKORNY GROUP
202.659.9111
www.bockornygroup.com

Message

From: Bolen, Brittany [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=31E872A691114372B5A6A88482A66E48-BOLEN, BRIT]
Sent: 4/5/2017 4:24:46 PM
To: Lee Fuller [lfuller@ipaa.org]
Subject: Re: Reaching Out

Hi Lee - yes, I just came on board last Monday. It was a quick transition and I failed to send out a widespread farewell email. Nevertheless, glad you got my new contact info.
Best,
Brittany

Sent from my iPhone

On Apr 5, 2017, at 11:50 AM, Lee Fuller <lfuller@ipaa.org> wrote:

> Brittany,
>
> I read that you were now at EPA and wanted to see if this is your new email address.
>
> Thanks,
>
> Lee Fuller
> IPAA

Message

From: Bolen, Brittany [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=31E872A691114372B5A6A88482A66E48-BOLEN, BRIT]
Sent: 5/11/2017 12:53:53 PM
To: Shepherd, Ray [rayshepherd@peabodyenergy.com]
CC: Kime, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ef7b76087a6475b80fc984ac2dd4497-RKime]; Inge, Carolyn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7f763e42702a4f468cdf42323ee94520-Cinge]
Subject: Re: Availability

Hi Ray,
No availability today. Please work with Carolyn (cc'd) to check on schedule for next week.
Thanks,
Brittany

On May 10, 2017, at 12:29 PM, Shepherd, Ray <rayshepherd@peabodyenergy.com> wrote:

Brittany—

Hey, do you have some availability either tomorrow or next Thursday to discuss a permit issue we are having in Indiana? It is a perfect example of how a rogue bureaucrat (Army Corps of Engineers) can veto a project that is environmentally conscious and would employee hundred and provide tens of millions of dollars in local revenue. EPA is part of the process (along with DOI and ACOE). Would appreciate your counsel. We were working with Layne, but he is moving on to another gig. Thanks much

Ray Shepherd
Vice President & Senior Counsel, Federal Government Affairs
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Phone: Ex. 6 | Cell Ex. 6
rayshepherd@peabodyenergy.com

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