Oil and Natural Gas Roundtable Highlights

Background

On February 28, 2018, the U.S. Environmental Protection Agency (EPA) concluded a two-day oil and natural gas roundtable cosponsored by the Environmental Council of States (ECOS) and the Interstate Oil and Gas Compact Commission (IOGCC). Oil and natural gas stakeholders from states, tribes, industry, trade groups, and environmental non-governmental organizations (eNGOs) participated in the discussions.

The roundtable was organized to enhance coordination and communication, and ensure safe and responsible domestic energy production. Specifically, the roundtable objectives were:

1. To improve relationships and enhance communications among oil and natural gas stakeholders.
2. To identify and share solutions related to challenges that adversely impact efficient and timely compliance.

To that end, oil and natural gas stakeholders came together to share their individual expertise and experiences. The roundtable focused on identifying practical solutions to various environmental regulatory, permitting, and compliance challenges to achieve more effective and efficient environmental outcomes.

Participants were asked to share their individual viewpoints throughout the roundtable and consensus was not sought. The highlights, presented below, do not represent consensus and are not intended to be a complete recitation of the proceedings. Rather, this document compiles individual input from the roundtable participants and is intended to serve as a reference to oil and natural gas stakeholders for further discussions. Also, this document does not represent an Agency position on the topics discussed herein and should not be construed as such[1].

Highlights

During the roundtable, EPA shared the following information with participants related to ongoing Agency efforts:

1. Office of Air and Radiation (OAR) – A number of regulatory efforts are underway related to oil and natural gas regulation. The efforts include:

    a. Reconsideration of New Source Performance Standards OOOOa – OAR is looking at technical reconsideration concerns and methane policy components.

    b. New Source Review (NSR) reform – OAR is looking at options to streamline the permitting process.

[1] This document is not a regulation, policy, guidance, or the outcome of a scientific inquiry. Thus, this document does not impose legally binding requirements on the EPA, states, tribes, or the regulated community. This document does not confer legal rights or impose legal obligations upon any member of the public.

ED_002674A_00019322-00001

c. Air Toxics Program – OAR withdrew of the "once-in, always-in" policy from 1995.

d. Control Technique Guidelines (CTG) – Withdrawal of the oil and natural gas CTG is at Office of Management Budget for clearance to be published in the Federal Register.[2]

e. Implementation of the National Ambient Air Quality Standards (NAAQS) – OAR is planning to issue designations in April. OAR is looking at issues like state flexibilities and transport from international contributions.

2. Office of Enforcement and Compliance Assurance (OECA) – EPA is working to foster compliance and correct non-compliance. OECA's Air Enforcement Division (AED) is working on an oil and natural gas sector initiative to streamline auditing and self-disclosures for new owners. AED is developing a template for more routine and regular disclosure of violations with an initial focus on storage tank emission control systems. AED welcomes engagement with states, industry and eNGOs and anticipates launching this effort in the next two to three months.

3. Office of Policy – EPA's Smart Sectors Program is meeting with oil and natural gas stakeholders to offer meaningful engagement above EPA's media stovepipes. The Smart Sectors Program focuses on a holistic approach, looking at the regulatory landscape impacting the sector of focus. The Smart Sectors Program participates on field tours and shares its observations with respective EPA program offices to improve regulatory and permitting programs.

4. Office of Water (OW) – With respect to management of produced water, EPA recognizes the need to find alternative approaches to disposal in Underground Injection Control (UIC) Class II wells. Within the next two months, OW plans to announce a study in the Federal Register where the Agency intends to seek input on new approaches and technologies to manage produced water.

General Themes

In retrospect, individual stakeholder comments shared during the roundtable were grouped into the following categories following the roundtable, representing the following general themes.

1. Certainty and Consistency:

    a. Regulations, permits, and compliance assurance activities should have certain and clear goals, create incentives for achieving better outcomes, and focus on the intended outcomes.

    b. Regulators should strive for consistency with respect to regulatory/policy/permit interpretations while providing timely information to the organization requesting the interpretation (i.e., state agency, industry, etc.).

[2] On March 1, 2018, EPA signed a notice seeking public comment on withdrawing the 2016 CTG for the oil and natural gas industry.

ED_002674A_00019322-00002

c. States should have a clear pathway to determine equivalency of individual state rules and regulations with federal statutes/regulations. For example, State leak detection and repair regulations as equivalency to federal standards.

d. Regulators should share best practices related to regulation development and permitting programs.

2. Collaboration/Engagement:

a. Regardless of delegation/primacy, the important part of "cooperative federalism" is cooperation. Federal and state regulators should work to establish meaningful relationships to ensure timely and effective outcomes.

b. Stakeholders should strive for improved public outreach and public transparency.

c. Industry and eNGOs should engage in meaningful collaboration.

d. How do we achieve meaningful collaboration and community engagement?

e. While meaningful collaborative processes may be shared and replicated, the outcome of stakeholder collaborations should not be assumed to scale nationally. For example, replicating the collaborative process which yielded Colorado's Regulation 7 could serve as model for other states. However, assuming Colorado's Regulation 7 could apply nationally without a similar stakeholder process may not be appropriate.

3. Technology and Data:

a. Given dynamic advances in technology, regulations and permits should provide flexibility for the use of science-based technologies.

b. Identify pathways to adopt innovative technologies.

c. Industry should identify ways to increase transparency and fill data gaps by sharing data and conducting and publishing peer-reviewed studies. Sound data is key to pragmatic, effective policy.

4. Measures of Success:

a. Compliance with environmental regulations and permits is a shared stakeholder goal.

b. Regulators should prioritize measuring compliance outcomes as opposed to activity-based metrics like number of inspections, number of enforcement actions, etc.

c. Federal oversight of delegated and primacy programs should credit states for exceeding federal requirements, not just identify deficiencies.

ED_002674A_00019322-00003

5. Resources:

    a. Increasing efficiency in light of decreasing federal and state budgets presents timeliness concerns for industry and oversight concerns for eNGOs.

    b. Regulators should prioritize limited travel resources to ensure regulation and permit writers get into the field to see and understand industry operations.

Focused Discussions

Three breakout sessions were held during the roundtable.[3] The breakout sessions were titled: regulation and policy, permitting, and compliance assurance. The following discussions represent general individual stakeholder sentiments expressed during each breakout session.

Regulation and Policy

Within the regulation and policy breakout session discussions focused on potential solutions for innovations related to the beneficial reuse of produced water and reducing air emissions. Further discussions focused on creating regulatory certainty and consistency.

1. Innovation related to produced water:

    a. For innovation around produced water treatment and use outside of the oil and natural gas industry, treated produced water must be valued and treated as a commodity by all stakeholders – not just an expense/waste for industry.

    b. Stakeholders need to collaborate on produced water innovation prior to the next significant drought. Such collaboration should include states, industry, eNGOs, researchers, communities, etc.

    c. When treated produced water is used outside of the oil and natural gas applications, the term *renewable water* should be used to describe the product/application since the water is added to hydrologic cycle. Water added to the hydrologic cycle is a renewable resource (like solar or wind). California and New Mexico are leading various efforts related to renewable water.

    d. There are limited examples of treated produced water used as valued water source:

        i. California has used produced water for agricultural irrigation for approximately 40 years. The Central Valley Water Board has convened an expert panel of stakeholders, including regulators, eNGOs, oil and gas operators, the Ag industry, toxicologists and scientists, etc. are in the process of conducting a scientific study and plan to produce a white paper on the use of produced water on crop irrigation.

[3] The complete list of breakout session topics, as suggested by individuals during the roundtable, are listed in Appendix A.

ED_002674A_00019322-00004

ii. New Mexico is working with a Pennsylvania-based company that has a proven technology and interested in investing millions of dollars into such a treatment plant. The constituents in the produced water are marketable, commodity products that will serve as feedstock for other industry.

e. Due to water scarcity, some states are already considering using formation water for source water. Providing incentives to the oil and natural gas industry to treat produced water vs. dispose of it will facilitate technological advances thus helping states.

f. Innovation may be driven by regulatory certainty but that does not necessarily mean innovation is only driven by regulations.

g. Intended uses of treated produced water should drive federal and state regulatory treatment standards. Prohibitive to test for the ~400-600 compounds found in produced water and test methods don't exist for all these compounds in high TDS water.

h. Federal and state regulations for treated produced water should include flexibility for regional variations in produced water.

i. Peer-reviewed, scientific data on produced water treatment and uses is necessary to overcome public perceptions regarding its use outside of the oil and natural gas sector (e.g., agricultural irrigation).

j. Stakeholders need to explain that beneficial use of treated produced water benefits the public and the environment to dispel the perception that it merely benefits industry.

2. Innovation related to air emissions:

a. Technology-based regulations will need to be updated as technology continues to advance.

b. Performance targets can help drive technology provided we can verify/measure meeting such targets.

c. Performance targets or standards can help avoid blocking certain technologies in favor of another technology.

d. The ECOS Shale Gas Caucus has been focusing on alternative practices that drive innovation and demonstrate compliance if technology cannot be used.

3. Certainty and Consistency:

a. Performance-based regulations are generally easier to implement as they are less prescriptive and not open to multiple interpretations. Since less prescriptive on how to achieve environmental outcome, can incentivize the use of innovative technology.

ED_002674A_00019322-00005

b. While state regulators want some degree of autonomy to account for regional differences in their industry, geology, etc., a strong federal program is necessary for states to meet or exceed.

c. Regulators at the federal and state levels struggle with the regulatory floor to ensure adequate protections.

d. Industry needs to provide data to fill gaps to help regulators set the floor for specific rules.

e. The ECOS Shale Gas Caucus and the Groundwater Protection Council are working on closing data gaps on produced water management.

Permitting

Within the permitting breakout session discussions focused on potential solutions for meaningful permitting (outcome-based, understandable) and overall efficiency (time, resources).

1. Meaningful:

    a. In primacy or delegated permit programs, states have discretion to implement those programs with respect to their primacy/delegation agreement. EPA should provide consistent and timely guidance to states when interpretive questions arise that are outside of the primacy/delegation agreement.

    b. In instances where a State has raised an interpretive permitting program question to EPA and a timely response has not been provided, state senior leadership should elevate to EPA's senior leadership.

    c. EPA's oversight of state permitting programs should credit/compliment states for clearly exceeding minimum expectations as opposed to merely focus on areas of concern as this would help tell a more holistic story.

    d. Collaboration around permitting programs and the permitting process will build trust and efficiencies.

    e. Creating more meaningful regulations will result in the issuance of more meaningful permits.

    f. Work smarter, not harder by making sure the permittee understands the permitting process and the permittee submits a permit application upon which the permitting authority can act.

2. Efficiency:

ED_002674A_00019322-00006

a. Improving permitting efficiency timeframes can avoid adverse economic impacts to industry and states.

b. Federal permitting on tribal lands should be commensurate with the neighboring state permitting timeframes to ensure the federal government does not create an economic disincentive for the tribe.

c. EPA should focus on a group of states that exceed expectations in administering their primacy or delegated permitting programs and consider following their practices to gain efficiencies at the federal level.

d. In an era of decreasing budgets, Lean efforts are underway to improve permitting timeframes and share permitting staff expertise across the organization to meet state and industry needs.

Compliance Assurance

Within the compliance assurance breakout session discussions focused on potential solutions for simplifying compliance obligations, compliance based outcomes, and compliance through collaboration and incentives.

1. Simplifying compliance obligations:

    a. Simplifying regulations can result in more meaningful permit obligations for industry. Re-writing complex regulatory requirements into permits yields complex permits.

    b. Regulators should consider easily-understandable regulations, relying on self-certification, and find-and-fix approaches will allow for innovation and economical compliance.

    c. When lowering a regulatory threshold, federal and state regulators should rely on science.

    d. Voluntary environmental programs like Natural Gas Star should not automatically serve as the basis for regulatory programs.

    e. Finding opportunities for increased coordination, training, and consistent interpretation will assist with compliance outcomes.

    f. Creating regular opportunities for industry to discuss issues in a non-enforcement context would help with compliance outcomes.

    g. Creating regulatory clarity through enforcement is not an equitable solution for an unclear or poorly written regulation.

    h. Regulators should articulate what it means to comply when promulgating a new regulation, offer FAQ related to compliance, and provide enforcement discretion for

ED_002674A_00019322-00007

new rules.

i. Regulators should conduct meetings with industry to share information and explain what is expected and upcoming regulatory changes.

j. Creating a stakeholder advisory council to educate EPA technical staff about the industry they are regulating would be beneficial.

k. Writing clear, simple rules is extremely hard for regulators and rules benefit from iteration through stakeholder engagement.

l. Industry is innovative and constantly going through tremendous changes, often more quickly than a rulemaking allows.

m. Some regulators have statutory obligations to review/reconsider rules on a periodic basis (e.g., every five years). In some instances, failure to go through such a process may invalidate a rule.

n. Meet regularly with industry, trade associations and NGOs so when they have a rule it's not a surprise. Sometimes rules have to change, etc.

o. Guidance documents help to memorialize how rules should be interpreted and are most helpful if they accompany a new rule.

2. Compliance-based outcomes:

   a. Focusing on outcomes, not outputs. For example, approximately 35 states are working through ECOS to measure outcomes under 14 different metrics.

   b. Compliance data should influence the rulemaking process, but there is a lack of transparency to date.

   c. Federal oversight of state compliance programs drains significant resources from the primary mission.

   d. Big data companies, like Google or Apple, may be able to assist with outcome based data/measurements.

   e. Proposed funding cuts to EPA detract from the public's perception of industry. Industry should step up and demand EPA receives the funding it needs.

3. Compliance through collaboration/incentives:

   a. Enforcement should be the last tool relied upon.

ED_002674A_00019322-00008

b. Stakeholders should get together outside of compliance issues to promote collaboration and, trust and discuss issues without escalation.

c. Regulators should incentivize behavior like frequency of inspections (i.e., the better the result, the lower the inspection priority), and in incentivize behavior in self-audit policies.

d. Regarding the self-disclosure of potential violations, the biggest obstacle for industry is not understanding the potential risks of doing so.

e. The new owner audit and self-disclosure program that is being developed for the oil and gas sector should go beyond "new owners" and focus on existing operations.

f. Industry experience with EPA's audit policy varies. Experiences with EPA Headquarters are generally positive, but experiences with EPA Regional Offices are generally negative.

g. Lack of compliance data can hinder regulators in determining if compliance is improving and if regulatory benefits intended by the rule were achieved.

Appendix A: Complete List of Topics for the Breakout Sessions

Breakout Session 1: Regulation and Policy

- Need for produced water management innovation
- Certainty/Regionalism
- Community engagement
- Clearly written rule/ consistent interpretation
- Planned collaboration
- Goal focused
- Allow for innovative technologies
- State equivalencies
- Incentives
- Good data for decision making
- Collaboration
- Best Practices for rule development
- Production segment - unique differences
- Canadian/Alberta regulation development model

Breakout Session 2: Permitting

- Community Engagement
- Consistency w/ regional responses
- Planned collaboration
- Tribal outcomes with process
- Streamlining process
- Efficiency/speed/LEAN
- Resources
- NEPA - Less review outside of authority.

Breakout Session 3: Compliance Assurance

- Consistency among regional responses
- Coordination with states on oil and gas new owner audit template
- Planned collaboration
- Innovative technology without rule re-writing
- Regular regulations
- Incentives
- Compliance can help industry be competitive (bad actors)
- Reduced directed action (e.g., recordkeeping) to allow problem solving
- Metrics of success (CMS)
- Not just numbers of enforcement actions, environmental based results
- Environmental results program
- Transparency of data used to measure compliance

ED_002674A_00019322-00010