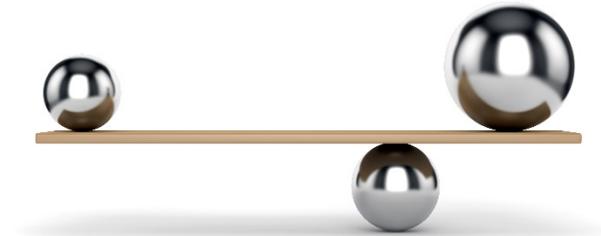


Managing Air Permitting and Compliance in Today's Oil Market

The Evolving Environmental Landscape

Five years ago when crude was over \$100 per barrel, the demand for air permitting in the upstream production market was hot. Environmental teams at the major exploration companies struggled to keep up with the speed of the drilling crews. In many cases, these competent environmental teams needed a cadre of environmental consultants to help churn out pre-construction air permits that are required by most state environmental agencies. At that time, the focus was on ensuring that environmental permitting didn't get in the way of production.

Fast forward to mid-2016, there are about 450 operational onshore oil rigs nationally (down from the peak of 1,600 in 2014), and operations in many cases have reduced environmental team headcount to help lean-out during this market lull. Though the demand on oil and gas EHS teams for new air preconstruction permits has decreased with decreased exploration, EHS teams still have to manage ongoing compliance (environmental compliance, like paying taxes, never ends!). And in many instances, they have taken this time to fine-tune their processes to be more efficient with their precious environmental team resources. There has been an evolution in air permitting and compliance in the oil and gas industry over the last several years, and the most successful environmental managers have incorporated the following four strategies.



Strategy Number 1 Move from Triaging Emergencies to Forward Planning

An auditor shows up at your facility and finds a critical flaw in the design and operation of your flare, hands you a notice a violation, and a \$5,000 fine. You drop everything you're doing and mobilize the team to handle the immediate situation. But, you soon realize that all of your 100 flares in the basin are identical, and now you're on the agency's radar. Instead of sitting back and hoping that nobody notices the other 99 flares, the most successful EHS managers take the initiative to address the potential environmental and financial liability of the systematic problem and fix it. By doing this proactively, the EHS manager can plan the approach, bring on consultants if needed, stagger the workload, and coordinate with vendors **without panicking**.

Strategy Number 2 Get Smart, Quickly

Over the last 5 years the oil and gas industry has been beset with new federal and state air rules and regulations: Federal NSPS OOOO, NSPS OOOOa, greenhouse gas reporting, record-setting consent decrees, state and local rules on fracking, and re-vamped state agency approaches to air permitting and compliance. The fact of the matter is that from the smallest operator to the most sophisticated super-major, **you've got to be aware of the evolving air permitting landscape and the nuances that apply to your operations.** Mistakes made in today's highly regulated environment can halt production or bring other penalties such as a blemished compliance record and/or fines. Effective EHS environmental managers recognize that money spent on staff development is better than that spent on regulatory enforcement.

Strategy Number 3 Document, Document, Document

The EPA has stated publicly that it plans to continue to press industry to reduce methane (and VOC by proxy) emissions through a number of measures including enforcement. And with reduced revenue coming in from air permits due to slowed exploration, state agencies will undoubtedly need the extra operating income from enforcement actions. Successful EHS managers document the applicability and negative applicability of air rules for every facility. Many develop a "permit operational summary" that contains all of the facility's operating restrictions, compliance obligations, and deadlines. This document is typically a few pages long, easy to understand, and available to the field technicians, environmental staff, and operations.

Strategy Number 4 Develop a System

Henry Ford revolutionized the automobile industry by incorporating an assembly line to systematically reduce costs in manufacturing cars. Successful environmental managers working alongside value-driven engineering design teams have developed standardized wellpad design coupled with systematic air permitting programs. Consistent design practices reduce the amount of effort needed to develop an air permit and reduce the likelihood of errors – both of which improve your bottom line.

If your team is lacking technical know-how or simply doesn't have the bandwidth to handle the air permitting and compliance system development, work with a consulting firm who knows your business and technical process. One example of a lean programmatic air permitting model involves in-house technical staff who are closest to the facility design teams in charge of calculating air emissions, and contracting the permit application preparation to an efficient consulting firm. The benefit of this is that the EHS team remains paramount to the permitting and compliance process, and the consulting firm fills the gaps in bandwidth.

eSPARC is an environmental firm focused on developing smart strategies for the energy industry. With over 75 years of air permitting experience, eSPARC provides tailored and cost-effective solutions to your environmental challenges.

Kat Galloway is a Principal Scientist and Oil & Gas Leader at CAMS eSPARC, LLC. She has prepared hundreds of oil and gas air permits and managed air compliance programs for national operators in her 12 years as an environmental consultant. Kat can be reached at kgalloway@camsesparc.com or at 281-217-8233. Visit <http://www.camsesparc.com/industries/oil-gas/> for more information.