



Eagle Rock Energy

Eagle Rock Energy Simplifies Environmental Permitting with EMIS, Earns Positive ROI within Two Years

Houston-based Eagle Rock Energy Partners MLP (ERE), builds and operates oil and gas properties, natural gas gathering systems, and natural gas processing plants across the United States. As part of the company's growth strategy, ERE has acquired many new sites nationwide - each with its own permit requirements and compliance liabilities. Past owners had invariably relied on paper records or multiple spreadsheets to track hundreds of permits and requirements. After the ERE acquisition, enforcement issues would arise due to uncompleted tasks, lapsed paperwork and operation teams' inability to manage outdated spreadsheets that were sometimes 2,000 lines long.

After a series of five acquisitions, ERE's Environmental Director, Rachel Trainer, tried to sell the company's leaders on the idea of implementing a centralized software system to manage regulatory compliance and permit data. It took more than 3 years and a big permitting/re-permitting project that cost the company almost \$1 million for the approval to come from the executive team.

"We audited 97 sites as part of our big permitting and re-permitting action," Trainer explained. "We hired environmental consultants full time for the project at 'consultant rates.' Every site had to be re-permitted. I told the executive team I could not give them any assurance it wouldn't happen again because it's all on paper and in spreadsheets. It's not in a centralized location in an environmental management information system (EMIS) where we can enter data, query data and get reports with easy access. They listened at that point."

Trainer and her team were given one year to implement an EMIS. They chose *Sphera opsInfo™*, part of the Sphera Environmental Performance Solution™, because of its best-in-class capabilities and cost.

"I calculate the system has already paid for itself," Trainer commented. "We've had a number of projects where previously we would have had to hire additional staff or consultants charging up to \$100 an hour. I estimate a new

Challenge

- Consolidate management of permitting data and documentation from newly acquired sites
- Provide company's executive team with transparency into EHS performance
- Avoid risk of non-compliance due to employee turnover or reassignments

Solution

Compliance Assurance Solution

- Compliance Assurance
- Permit Management
- Task Management

Results

- Implemented Environmental Management Information System in less than 1 year
- Easily managed 100s of permits for 97 sites and 12,000 pcs of equipment in one system
- Earned positive Return on Investment (ROI) within only 2 years
- Achieved 100% data calculation accuracy while decreasing human-keyed errors by up to 50%
- Reduced fulfillment time for ad hoc data requests from weeks to 5 minutes
- Created accountability by tying EHS performance metrics tracked in EMIS to company bonuses
- Provided equipment reliability data to support financial reporting, including 10-K and 10-Q

rule change or permitting action could have potentially cost the company around \$20,000 per month per project, or \$500,000 total for two or three projects lasting a few months. But because our information is automated in the EMIS, we haven't had to hire any additional staff, giving us a positive return on our investment in a mere two-year time period."

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ERE began loading data collected from different sites, including 15 gas plants and 100 compressor stations and tank batteries, plus 12,000 pieces of equipment. The permit data from the gas plants was the most complex. In the old spreadsheets, site personnel were required to perform lengthy tasks and enter data from thousands of line items.

In addition to using the EMIS to comply with permitting requirements, the environmental managers create reports to executive management and stakeholders. “Our monthly reports show a roll up of overdue tasks by each sector within the company. Then, internally, we have a scorecard on our intranet so when the executives log in, they see a listing of the volume of our emission events year-to-date. It’s all kept in a chart which is quick and easy to understand,” Trainer explained. “Our stakeholders can see a continuous improvement process and that gives them confidence that the EMIS idea was a solid business investment.”

To drive home the message of improving compliance company-wide, ERE has tied performance at every site to employee bonuses. Specifically, the company has set a reduction target in both reportable spills as well as emissions uncontrolled into the air.

“Because everyone has been entering information into the EMIS, we were able to run reports by regions, sectors and the company as a whole. From these reports, goals were set for a 10 percent reduction over last year,” Trainer said. “Our program helps keep it in the pipes; keeps the dollars where they belong.”

ERE is able to perform calculations to fulfill annual emission inventory and GHG reporting, generating semi-annual deviation reports, and recently expanded the implementation to satisfy recent vigorous NSPS and NESHAP rule requirements. Trainer says that the integrity of the data and quality of data has improved significantly. Calculations, verbiage and processes have been standardized. Calculation accuracy is ranked at 100 percent while human-keyed data entry errors decreased from 50 percent to 5 percent.

Setting emissions and spills reduction targets and tying them to employee bonuses provides a whole new level of accountability. Information is transparent, shared, and easily accessible. This is helpful when employees are reassigned or leave and new people are hired.

“Previously, there was a void when people left positions. There would be questions about tasks and deadlines. The EMIS has closed that gap. Tasks are assigned by job title. When someone leaves, tasks roll up to their supervisor for reassignment until the vacant position is filled,” Trainer said. “Although we may be juggling task assignments, we’re not dropping the ball on any tasks. The executive team shouldn’t worry about the environmental team winning the lottery and walking out. Compliance will still go on.”

As new personnel join, they automatically receive task notices in the EMIS. They know their responsibilities with regard to emission inventory and Tier II reports, or other obscure reports that are needed for permitting compliance. Automatic notices sent through the EMIS

flag the tasks and new employees can simply ask their supervisors if they aren’t familiar with them, ensuring all tasks are being completed in a timely manner.

Other systems integrated with ERE’s EMIS include continuous emission monitors, FLOWCAL™, which draws individual meter data such as GHG or CAM meters for Title V permits. Plus, IHS FieldDIRECT® for upstream operations to record tank volumes imported via .TXT file.

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Rachel Trainer
Environmental Director, Eagle Rock Energy

The importance of data integrity in the EMIS is underscored by the fact that ERE also uses the system to provide equipment-reliability data for annual 10-K and quarterly 10-Q financial reports required by the Securities and Exchange Commission. Investors who are looking for business performance indicators can see the run-time for a given piece of equipment and then group it by equipment type or region.

Min Wang, ERE’s Environmental Manager for GHG and EMIS, explained, “Our data has dramatically improved because it’s entered in real-time. The Measurement department networked the meters at our sites. Because the information is entered on a daily basis, data can be reviewed by staff in multiple layers. We’re very confident about the information we’re sending out, which will also help us avoid future compliance issues.”

“It’s easier to comply with new regulations. They can be very daunting if you don’t have a system to run quick queries such as ‘Give me all engines that are over 500 horsepower within the company,’ Trainer agreed. “Before we had our information in the EMIS, it would have taken weeks to answer that one question. Now we can do it in 5 minutes.”

Today, ERE’s executive team is reportedly impressed that the EMIS was implemented on time – within one year – and that they can now easily access EHS information for key decisions. The EHS team is looking forward to helping them by providing more high-value analysis (while working fewer overtime hours).