

## **EPA's Climate Change Requirements Grow: Underground Coal Mines Added to List**

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Some underground coal mine operators already saddled with copious amounts of paperwork will soon be required to monitor and report their greenhouse gas emissions. This week, the Environmental Protection Agency ("EPA") signed a rule requiring that four additional source categories track and report greenhouse gas emissions under EPA's earlier GHG reporting rule published October 30, 2009. Underground coal mines were originally excluded from the 41 sources regulated in the 2009 rule, but will now be required to report certain methane, carbon dioxide, and nitrous oxide emissions when the rule becomes effective.

While surface mines, post-mining activities, and abandoned mines are excluded from the rule, underground coal mines classified by the Mine Safety and Health Administration ("MSHA") as active, currently under development, or with active degasification systems will be required to record and report emissions if they are subject to MSHA's ventilation system sampling program. According to the rule's technical support document, this rule will affect approximately 114 underground coal mines around the country at an average first year cost of \$34,717 per mine. The rule especially targets underground mines with degasification systems; as of 2006, 20 mines had degasification systems in place.

For the 114 mines believed to be covered under this rule, the reporting requirements and monitoring techniques may be demanding. A covered mine must report the following for each ventilation and degasification well or shaft:

1. Quarterly and net methane liberation from each ventilation well or shaft including methane content, flow data, temperature and pressure readings, and moisture content;
2. Weekly methane liberation from each degasification system including methane content, flow data, temperature and pressure readings, and moisture content;
3. Weekly methane destruction from each device, including destruction by sale, use, or onsite flaring;
4. Quarterly carbon dioxide emissions from methane destruction onsite, excluding flaring; and
5. Annual carbon dioxide, methane, and nitrous oxide emissions from any fuel combustion units onsite.<sup>1</sup>

The rule treats these monitoring sites quite expansively; degasification systems "include all degasification wells and gob gas vent holes at the underground mine." In addition, "ventilation well or shaft" encompasses any and all wells and shafts used as an outlet to move air from the system out of the mine. As a result, even a simple borehole used for ventilation or an outlet from a required longwall degasification entry must be monitored.

Covered mines can monitor these emissions in one of two ways; liberated methane can be tracked using continuous emissions monitoring systems ("CEMS"), or through quarterly sampling using MSHA protocols. If the mine chooses to undertake quarterly sampling, it may either rely upon MSHA's sample results or conduct its own independent sampling. This choice may seem straightforward, but choosing the monitoring system with the least upfront cost and labor may not be the best route. If GHG reporting is compiled for use in a future greenhouse gas regulatory scheme, inaccurate results could put the mine at a significant

disadvantage.

Covered mines must start tracking emissions on January 1, 2011, and report the results to the EPA by March 31, 2012. Since this requirement is less than a year away, underground mine managers should begin now to determine (i) whether the rule applies to its operations, (ii) each emissions monitoring point, (iii) its preferred tracking method, and (iv) its reporting infrastructure. During this process, management should be aware of this rule's repercussions. The GHG reporting rule is widely viewed as the first step toward implementing GHG emissions limits and related climate change regulation; hence, the results of this reporting may be used to determine a mine's required emissions reductions or marketable credits. Attorneys in Dinsmore & Shohl's Natural Resources Practice Group have experience in addressing such issues, and may be able to help mine management assess its duties and options under this mandatory rule, with a focus on planning for timely compliance. <sup>1</sup> Whether firms and their clients are willing to develop the processes necessary for the change to succeed.

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(1) See EPA's "Underground Coal Mines Monitoring Checklist," available at [http://www.epa.gov/climatechange/emissions/downloads10/Subpart-FF\\_checklist.pdf](http://www.epa.gov/climatechange/emissions/downloads10/Subpart-FF_checklist.pdf)