

Coalbed Methane Detailed Study 2007 Data Collection and Outreach



Truck Collecting CBM Produced Water From Tank Battery (Greene County, PA)

Public Record for the 2008 Effluent Guidelines Program Plan
EPA Docket Number EPA-HQ-OW-2006-0771 (www.regulations.gov)

25 January 2008

I. Overview

In the final 2006 Effluent Guidelines Program Plan (“final 2006 Plan”) EPA identified that it would conduct a detailed study of the coalbed methane (CBM) sector (21 December 2006; 71 FR 76656) and also identified that it would develop an industry survey to support this detailed study and would seek OMB approval under the Paperwork Reduction Act (PRA). EPA is conducting this review to determine if it would be appropriate to revise the effluent guidelines for the Oil and Gas Extraction Point Source Category (40 CFR 435) to control pollutants discharged in CBM produced water. EPA also noticed it will conduct an ICR in the preliminary 2008 Plan (30 October 2007; 72 FR 61343). EPA will seek approval of the survey from OMB and conduct the survey in 2008.

EPA will use this ICR to collect technical and economic information from a wide range of CBM operations (e.g., geographical differences in the characteristics of CBM produced waters, environmental data, current regulatory controls, availability and affordability of treatment technology options). EPA will use this data to EPA evaluated the discharges from this industrial sector against the four factors EPA uses in its review of discharges from existing industrial point source categories. See final 2006 Plan (71 FR 76666).

This document describes the data collection and outreach EPA conducted in 2007 to support the development of the CBM Detailed Study and ICR. EPA’s major outreach and data collection documents are listed in Appendix A. They are placed in the record and are accessible through the on-line docket.¹ See the following document for instructions on how to use the on-line docket and retrieve the documents listed in Appendix A, “User Guide to the Docket for the 2007 Annual Review and the Preliminary 2008 Effluent Guidelines Program Plan.”²

II. Description of Information Collection Request and Approval Process

The Paperwork Reduction Act stipulates that every federal agency must obtain approval from the Office of Management and Budget before collecting the same or similar information from 10 or more members of the public. An Information Collection Request (ICR): (1) describes the information to be collected; (2) gives the reason the information is needed, and (3) estimates the time and cost for the public to answer the request. After reviewing the request, the Office of Management and Budget may approve or disapprove the ICR, or place conditions that must be met for approval. This process was designed to prevent unnecessary collections and reduce costs.

EPA’s survey approval process requires the publication of two Federal Register notices on the survey design and instruments. These two notices provide the public with two opportunities to review and comment on the survey before OMB review.

¹ Available at: <http://www.regulations.gov/>, Docket No. EPA-HQ-OW-2006-0771.

² See <http://epa.gov/guide/304m/2007/prelim-docket-guide.pdf>.

The current schedule for the CBM ICR is to publish the first Federal Register notice in January 2008. The public will have 60 days to review and comment on the survey design and instrument. EPA will revise the survey to incorporate public comments and publish a second Federal Register notice in the Spring/Summer 2008. The public will have 30 days to review and comment on the survey design and instruments. OMB will have 30 days to review and approve the survey after this second public comment period. EPA will conduct the survey in the Summer of 2008 after OMB's approval of the ICR.

II. Outreach Activities in 2007

The outreach goals for the CBM Detailed Study and ICR include: (1) working with stakeholders from the start of the Detailed Study and ICR; (2) providing transparency on EPA's actions and decision-making; and (3) identifying and resolving issues as early as possible. This outreach helps facilitate the ICR approval process as comments and suggestions from industry and other stakeholders will be incorporated into the survey design prior to the first Federal Register notice.

In 2007 EPA worked with a range of stakeholders (e.g., industry representatives; Federal, State, and Tribal representatives; public interest groups and landowners; and water treatment experts) to obtain the best available information on the industry and its CBM produced water management practices. EPA developed its outreach sequentially starting with an informal round of teleconferences and continued afterwards with a series of local meetings and meetings in the major CBM basins. In total EPA met or spoke with almost 700 different people during the outreach and data collection activities in 2007.

A. Informal Stakeholder Teleconferences (June/July 2007)

To initiate stakeholder involvement EPA conducted seven 90 minute teleconferences in June and July 2007 with 119 stakeholders to provide an overview of the project, scope of the survey instrument, potential recipients, and schedule. See Table 1. These meetings solicited early feedback from participants to facilitate the development of the first draft of the survey instrument and population and sample frames. These teleconferences also identified interested stakeholder for the site visits/meetings outside of Washington (see II.C). During the stakeholder calls EPA provided information on the following topics:

- EPA Regulation Development Process;
- Initial Review of CBM Sector;
- CBM Information Collection Request (ICR); and
- Schedule and Next Steps.

EPA posted the briefing slides for the teleconferences on the project's website.³ Meeting minutes were drafted and shared with participants prior to finalization. Meeting participants included a broad range of stakeholders. See Appendix A for a listing of the

³ See <http://www.epa.gov/guide/304m/2007/cmb-slides.pdf>.

meetings and their document numbers in the on-line docket (EPA-HQ-OW-2006-0771).

Table 1. Participation in CBM Stakeholder Calls (June/July 2007)

	June 21	June 26	June 27	June 28	July 10	July 24	July 26	Total
EPA Staff	1	0	0	0	0	0	1	2
Federal	0	5	2	0	8	0	0	15
State	2	1	2	0	10	0	0	15
Tribal	0	1	0	0	7	0	0	8
Industry	1	0	0	18	28	10	2	59
Public Interest	0	0	0	0	3	0	4	7
CBM Treatment Experts	3	2	1	0	6	1	0	13
Total:	7	9	5	18	62	11	7	119

B. Local Stakeholder Meetings and Teleconferences (March to December 2007)

EPA also conducted 13 local meetings and teleconferences with over 150 stakeholders in 2007. These meetings also solicited early feedback from participants to facilitate the development of the first draft of the survey instrument and population and sample frames. Meeting minutes were drafted and shared with participants prior to finalization. Meeting participants included staff from Federal agencies and industry stakeholders. See Appendix A for a listing of the meetings and teleconferences and their document numbers in the on-line docket (EPA-HQ-OW-2006-0771).

These meetings helped clarify the roles and responsibilities of the different Federal agencies and to identify potential data sources for supporting the detailed study and survey. These meetings also helped identify Federal agency staff potentially interested in participating in the site visits (see Section III).

C. Meetings Outside of Washington, DC (August to October 2007)

EPA also conducted 23 meetings outside of Washington, DC. These meetings were coordinated with site visits of CBM operations (see Section III). These meetings also solicited early feedback from participants to facilitate the development of the first draft of the survey instrument and population and sample frames. Meeting minutes were drafted and shared with participants prior to finalization. Meeting participants included a broad range of stakeholders. See Appendix A for a listing of the meetings and their document numbers in the on-line docket (EPA-HQ-OW-2006-0771). This stakeholder outreach included notes and presentations from the 14th Annual International Petroleum Environmental Conference, 6 - 9 November 2007, Houston, TX.

III. Site Visits in 2007

EPA visited six CBM basins in six states in 2007 to gather data for the CBM Detailed Study and ICR. In total EPA conducted 20 sites visits to different locations within these six CBM basins and met with over 300 different stakeholders. During the visits, EPA visited a range of CBM operations that demonstrate the typical production

and water management options for that area. Since CBM operations vary by basin, EPA conducted site visits to view production in the following basins:

- Black Warrior (Alabama);
- Upper Appalachian (southwestern Pennsylvania);
- Central Appalachian (southern Virginia and West Virginia);
- Powder River (Wyoming and Montana); and
- San Juan and Raton (Colorado and New Mexico).

During each site visit, EPA collected general site information (e.g., location, operator name, field name, pooling arrangements, well spacing); produced water reuse and disposal methods; treatment methods; and economic information such as descriptions of factors affecting decisions to begin production or shut-in a well, lease, or other area. Information collected during each site visit is documented in a report. Confidential Business Information (CBI) in these site visit reports is redacted from the public versions of the reports in the on-line docket. See Appendix A for a listing of the meetings and their document numbers in the on-line docket (EPA-HQ-OW-2006-0771).

IV. Economic Data Collection in 2007

EPA (through its contractor) licensed database information on historic well production from HPDI, Inc. (<http://www.hpdi.com>). HPDI, Inc., compiles information from nearly all of the oil and gas producing states and provides detailed data in a consistent format to clients accessed through a web-based query system. For nearly all of the CBM-producing states, EPA collected the information by querying HPDI's U.S. Historical Production Database. EPA entered the state and then selected both the "CBM" and "COALBED METHANE" flags. HPDI indicated that DOE provides information that helps HPDI create these flags, although the states often have their own flags in their data. This procedure, for the most part, generated all CBM well information available in the HPDI system, for all CBM wells in the HPDI system whether actively producing or not.⁴

EPA supplemented HPDI data with state data from Indiana and Illinois, states for which HPDI does not provide data. EPA also used data from West Virginia and Virginia to identify which wells in those states were CBM wells, and West Virginia (WVDEP) provided updated information on gas production (2006 production data were not available from HPDI at the time of downloading for West Virginia; the state was just in the process of releasing that data when it was provided to EPA).

The data were compiled into a database that provided, in most cases, information on state, basin, operator name, operator's well name and number, unique well identifier (API number), field, reservoir, and various location information, along with 2006 gas and water production, where available.

⁴ HPDI, however, only maintains wells in their system for 5 years if no production activity has been reported, so this information is not useful for compiling a history of numbers of CBM wells ever producing.

V. Other Data Collection Activities in 2007

EPA also identified and collected a series of information during 2007 to support the CBM Detailed Study and ICR. These documents are listed in DCN 05379 in the on-line docket (EPA-HQ-OW-2006-0771).

Appendix A: Summary of Major Outreach and Data Collection Documents Supporting the EPA CBM ICR

No.	Title	Date	DCN
Outreach Activities – Informal Stakeholder Teleconferences (June/July 2007)			
1	Stakeholder Teleconference	21 Jun 07	5177
2	Stakeholder Teleconference	26 Jun 07	5178
3	Stakeholder Teleconference	27 Jun 07	5179
4	Stakeholder Teleconference	28 Jun 07	5180
5	Stakeholder Teleconference	10 Jul 07	5181
6	Stakeholder Teleconference	24 Jul 07	5182
7	Stakeholder Teleconference	26 Jul 07	5184

Appendix A: Summary of Major Outreach and Data Collection Documents Supporting the EPA CBM ICR (cont.)

No.	Title	Date	DCN
Outreach Activities – Local Stakeholder Meetings and Teleconferences (March to December 2007)			
1	U.S. Department of Energy’s Office of Fossil Energy and Energy Information Administration	15 May 07	5176
2	U.S. Geologic Survey Meeting	9 Aug 07	5186
3	U.S. Forest Service Meeting	10 Aug 07	5187
4	U.S. Department of Energy, Energy Information Administration Teleconference	17 Aug 07	5188
5	CBM Trade Associations and Operators	30 Aug 07	5189
6	U.S. Department of Interior, Bureau of Land Management Meeting	31 Aug 07	5190
7	West Virginia Department of Environmental Protection Teleconference	21 Sep 07	5191
8	API Clean Water Task Force Meeting	3 Oct 07	5373
9	Methane Energy (Coos Bay, OR) Teleconference	31 Oct 07	5246
10	U.S. Department of Interior, Minerals Management Service Teleconference	2 Nov 07	5244
11	CBM Trade Associations and Operators Meeting	11 Dec 07	5245
12	U.S. Department of Interior, Bureau of Reclamation Teleconference	27 Dec 07	5247
13	CBM Trade Associations and Operators Meeting	15 Jan 08	5368

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No.	Title	Location	Date	DCN
Outreach Activities – Meetings Outside of Washington, DC (August to October 2007)				
1	Alabama Coalbed Methane Industry Meeting	Tuscaloosa, AL	7 Aug 07	5098
2	U.S. Fish and Wildlife, Daphne Field Office and Geological Survey of Alabama Meeting Minutes	Tuscaloosa, AL	7 Aug 07	5100
3	Geological Survey of Alabama and State Oil and Gas Board of Alabama Meeting Minutes	Tuscaloosa, AL	7 Aug 07	5099
4	West Virginia Coalbed Methane Industry Stakeholder Meeting	Beckley, WV	24 Sep 07	5207
5	Public Interest Group Meeting	Melcroft, PA	11 Oct 07	5209
6	Pennsylvania Coalbed Methane Industry and Pennsylvania Department of Environmental Protection (PADEP) Meeting	Canonsburg, PA	11 Oct 07	5208
7	Public Interest Group Meeting	Broadus, MT	16 Oct 07	5210
8	Wyoming Coalbed Methane Industry Stakeholder Meeting	Gillette, WY	17 Oct 07	5212
9	Meeting with Federal and State Regulators	Sheridan, WY	17 Oct 07	5213
10	Public Interest Group Meeting	Sheridan, WY	17 Oct 07	5214
11	Meeting with Federal and State Regulators	Billings, MT	18 Oct 07	5192
12	Public Interest Group Meeting	Billings, MT	18 Oct 07	5215
13	Northern Cheyenne Meeting	Billings, MT	19 Oct 07	5193
14	Colorado Coalbed Methane Industry Stakeholder Meeting	Durango, CO	22 Oct 07	5216
15	Meeting with Federal and State Regulators	Farmington, NM	22 Oct 07	5219
16	U.S. Forest Service on Northern San Juan FEIS & ROD	Durango, CO	22 Oct 07	5195
17	Meeting with Oil and Gas Accountability Project	Durango, CO	23 Oct 07	5220
18	Southern Ute Meeting	Igancio, CO	24 Oct 07	5221
19	Colorado Coalbed Methane Industry Stakeholder Meeting	Trinidad, CO	25 Oct 07	5222
20	Public Interest Group Meeting	Trinidad, CO	25 Oct 07	5223
21	Meeting with City of Raton, NM	Raton, NM	26 Oct 07	5196
22	Colorado Petroleum Association Meeting Minutes	Denver, CO	1 Nov 07	5244
23	14th International Petroleum Environmental Conference Notes	Houston, TX	7 Nov 07	5138

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No.	Title	Location	Date	DCN
	Site Visits (August to October 2007)			
1	Final Site Visit Report: Coalbed Methane Operations (Black Warrior Basin, Alabama)	Black Warrior Basin	6 Aug 07	5231
2	Final Site Visit Report: PennVirginia	Central Appalachia Basin	24 Sep 07	5232
3	Final Site Visit Report: CNX Gas	Central Appalachia Basin	25 Sep 07	5233
4	Final Site Visit Report: CDX	Central Appalachia Basin	25 Sep 07	5234
5	Final Site Visit Report for the Howard Treatment Facility, EnerVest Operating	Northern Appalachia Basin	10 Oct 07	5198
6	Final Site Visit Report: Brinkerton Treatment Facility, Great Lakes Energy	Northern Appalachia Basin	10 Oct 07	5199
7	Final Site Visit Report: CNX Gas	Northern Appalachia Basin	10 Oct 07	5235
8	Final Site Visit Report: St. Mary Land and Exploration (formerly Nance Petroleum)	Powder River Basin	15 Oct 07	5236
9	Final Site Visit Report: Marathon and J.M. Huber Subsurface Drip Irrigation Projects (BeneTerra SDI system)	Powder River Basin	15 Oct 07	5237
10	Final Site Visit Report: OW Ranch Water Management Plan	Powder River Basin	15 Oct 07	5238
11	Final Site Visit Report: Anadarko Petroleum Company	Powder River Basin	16 Oct 07	5239
12	Final Site Visit Report: Williams Exploration and Production	Powder River Basin	16 Oct 07	5200
13	Final Site Visit Report: Drake Water Technologies	Powder River Basin	16 Oct 07	5243
14	Final Site Visit Report: Fidelity Exploration and Production	Powder River Basin	19 Oct 07	5201
15	Final Site Visit Report: Altela, Inc. (Blackshawl & Moncisco Units)	San Juan Basin	22 Oct 07	5225
16	Final Site Visit Report: XTO Energy	San Juan Basin	23 Oct 07	5227
17	Final Site Visit Report: Sandia National Laboratories (SNL) Pilot Treatment Plant and New Mexico State University (NMSU) Land Application Study ConocoPhillips Well Pad	San Juan Basin	23 Oct 07	5270
18	Final Site Visit Report: Pioneer	Raton Basin	25 Oct 07	5229
19	Final Site Visit Report: XTO Energy	Raton Basin	25 Oct 07	5230
20	Final Site Visit Report: Triwatech, Inc.	Raton Basin	26 Oct 07	5276