



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OCT - 3 2002

THE ADMINISTRATOR

The Honorable Henry A. Waxman  
United States House of Representatives  
Washington, DC 20515

Dear Congressman Waxman:

I am writing in response to your October 1, 2002 letter alleging the Environmental Protection Agency (the "EPA") manipulated scientific data in a draft technical study concerning the risk from the practice of hydraulic fracturing of coalbed methane (CBM) reservoirs. As you suggested, I have looked into the matter. Contrary to the assertions in your letter, there has been no alteration in the data or conclusions in the study issued for comment in August. What I've found instead, are numerous inaccuracies and mischaracterizations of the technical assistance and information you received from the Agency's career professionals. I will take this opportunity to set the record straight.

#### Background

In 2000, EPA launched an investigation to evaluate the potential impacts on underground sources of drinking water by hydraulic fracturing of coalbed methane wells. The goal of this study was to determine if there is a threat to public health from the practice which would warrant further investigation or additional regulation of the practice. This multi-year study is the most comprehensive collection of information conducted concerning the relationship between hydraulic fracturing and risks to groundwater. It is the most thorough effort ever conducted to review any impacts to public health from hydraulic fracturing.

On August 28, 2002, EPA issued for public comment a draft study titled, "Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs" (the Study). The Study described the methodology used and the data collected. Although thousands of CBM wells are hydraulically fractured each year, EPA found no confirmed cases of drinking water well contamination. The Study additionally concludes that even based upon modeling using conservative assumptions the threat of contamination of drinking water supplies is low. Finally, based upon this comprehensive evaluation, the Agency concluded that there is no risk based justification for additional study. The Federal Register notice invited comment on the study methodology, the data collected and the Agency's conclusions.

On September 17, 2002 EPA staff provided a briefing on the draft report to House and Senate Congressional staff in response to a request from conferees on the energy bill

("September 17, 2002 Congressional Briefing"). During the course of the three hour briefing, EPA staff supplied in-depth information about study methods, data and conclusions and responded to detailed questions from committee staff. Conference committee staff and your staff requested that EPA submit additional information concerning the study methodology and calculations supporting the Agency's conclusions. That material was provided to committee staff on September 20, 2002, although you refer to the date of September 23, 2002. (September 20/23, 2002 Supplemental Material).

Charges Set Out in Your October 1, 2002 Letter

1. *EPA altered scientific and policy conclusions to accommodate Halliburton.*

**No data or conclusions in the Study were altered to accommodate Halliburton, other industry parties, states, environmental groups, or others.**

As indicated in the methodology, this Study was a thorough and open data collection and technical evaluation exercise. The Study and conclusions were prepared by career technical staff.

The Study was designed based upon a transparent process including public comment on the conceptual study design which included comments from state drinking water and oil and gas agencies, industry, environmental groups and private citizens. The Agency consulted with experts in the United States Geological Survey and the Department of Energy. Consistent with principles of good science, a draft of the Study was subjected to a technical peer review from hydraulic fracturing experts. When the Agency prepared the conclusions in the Study, they were not submitted for review to any private sector parties.

2. *Data from the Study shows levels of benzene and other toxic chemicals exceed federal drinking water standards. EPA staff at the Congressional briefing agreed benzene concentrations at the edge of the fracture zone would be above federal drinking water standards.*

**The Study does not conclude that hydraulic fracturing produces levels of benzene or other toxic chemicals in underground sources of drinking water which exceed federal drinking water standards. In fact, the Study reaches exactly the opposite conclusion. When certain Congressional staff at the briefing made this assertion, EPA career technical experts repeatedly disagreed with this erroneous interpretation of the Study.**

The Study was not designed, nor does it claim to be, a detailed, site-specific, risk assessment of all potential locations for coalbed methane hydraulic fracturing. It is a scientifically sound evaluation of the potential risk from hydraulic fracturing based upon an extensive collection and evaluation of empirical and theoretical data, and the investigation of alleged incidents of contamination of drinking water potentially attributable to hydraulic fracturing.

To determine the nature and extent of potential risk, the EPA estimated groundwater quality based upon low, medium and high concentration scenarios. This information provided the basis for a qualitative assessment of whether hazardous constituents in fracturing fluids threaten public health. The methodology combined mathematical calculations on constituent concentrations throughout the fracturing process and the evaluation of other factors which would further reduce the concentration of fracturing fluid constituents. The Study concludes that hydraulic fracturing of CBM does not threaten human health through the contamination of underground sources of drinking water (The Study, pg. ES-15). In fact, the Study explicitly states, "Using the most conservative assumptions, the estimated concentration of the indicator constituent, benzene, at the fracture edge is below the MCL." (The Study, pg. 4-16).

In Section 1421 of the Safe Drinking Water Act (SDWA), Congress established a stringent "no endangerment" standard to protect public health from drinking water contamination. During the briefing, however, certain Congressional staff stated their preference for a different standard that would prevent the use of any potentially harmful constituents in the hydraulic fracturing process regardless of concentration or risk. Agency staff indicated that the evaluation and the policy conclusions in the Study had been developed consistent with the longstanding and protective SDWA no endangerment standard. Under that standard, the Agency concluded that the practice of hydraulic fracturing for CBM met the public health test. Specifically, the Agency concluded that hydraulic fracturing for CBM would not:

"...result in the presence in underground water which supplies or can reasonably be expected to supply any public water system of any contaminant, and if the presence of such contaminant may result in such system's not complying with any national primary drinking water regulation or may otherwise adversely affect the health of persons" (SDWA Sec. 1421(d)(2)).

At the September 17, 2002 Congressional Briefing, Congressional staff cited certain data in the report that they believe contradicted this conclusion. Agency personnel provided detailed and repeated explanations of how Congressional staff were misinterpreting the data. Contrary to the claim in your letter, at no time did EPA experts agree with the erroneous statement by your staff that the Study concluded that concentrations of benzene or other toxic constituents would exceed federal drinking water standards. Committee staff and your staff requested additional information be submitted. Among other things, they asked for a detailed description of how constituent concentrations were calculated. This information was provided to them in the September 20/23, 2002 Supplemental Material.

3. *Subsequent to briefing Congressional staff, EPA submitted new documents to the Committee which changed the analysis based on industry input and lowered the benzene concentrations to meet federal standards.*

**As indicated above, the Study published in August concluded that even in conservative scenarios the benzene concentrations were below the Maximum Contaminant Level**

**standards. There was no change in this conclusion in the September 20/23, 2002 Supplemental Material submitted to your staff subsequent to the September 17, 2002 Congressional Briefing. There was also no discussion with anyone outside the Agency during the preparation of these materials.**

As discussed above, at the September 17, 2002 Congressional Briefing, Congressional staff, including yours, sought a detailed description of how constituent concentrations were calculated for the Study. In order to assist them in understanding the methodology used in arriving at the conclusions set out in the Study, the September 20/23, 2002 Supplemental Material included a detailed explanation of how the Agency derived its concentration estimates used in the Study. That description is entirely consistent with the analysis in the Study. In addition, in preparing the September 20/23 Supplemental Material, there was no discussion by Agency staff with industry sources or others.

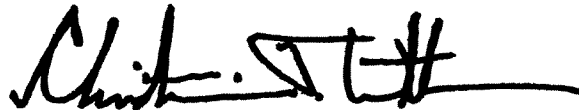
### Conclusion

I am troubled that your letter mischaracterizes the information you received from career staff at the Agency, and questions their integrity and professionalism. Such an action seriously undermines attempts to base environmental decisions on sound science.

As you and your colleagues continue consideration of the energy bill, I hope you will give full weight to the Agency's conclusions that CBM hydraulic fracturing does not pose a risk to drinking water. Additional study, particularly if based on false accusations and misunderstanding, has the potential to divert limited resources from real risks and threats to public health and the environment.

The comment period on this draft report is open until October 28, 2002. I urge you to submit any information or documents that you have for consideration prior to finalization of the report.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Christine Todd Whitman". The signature is stylized and cursive, with a long horizontal line extending to the right.

Christine Todd Whitman