From: jeanette ammon
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/16/2012 06:50 PM
Subject: Hydraulic Fracturing Science Advisory Board

TO: Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

RE: Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

FROM: Jeanette Ammon LMT, (steward for god and nature)

Dear Mr. Hanlon:
Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. Following this list is a second list of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.

Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:

1. Henry Anderson

2. Boufadel, Michel

3. Susan Brantley

4. Brownawell, Bruce

5. Janice Chambers

6. Dzombak, David A.

7. Edstrom, Robert

8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

12. Anthony Ingraffea

13. Lyman McDonald statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18. Jerome Paulson

19. Joseph N. Ryan, U. of Colorado, Boulder

20. Daniel Schlenk

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

The scientific credibility of the EPA is damaged by committees with real or perceived bias

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital

mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," id. App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," id. § 5(b)(2), and does not contain members with inappropriate special interests. Id.§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, then invitations to address the committee during public meetings are appropriate. However, individuals with financial conflicts should not be serving as members of the SAB.

The following 67 are all unacceptable candidates for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-st ories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have

field inspectors, rules and regulations, if you're a bad actor, not doing a good job, they're going to find you. It's something people are fearful of, but it's not a reality." And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)

4. Stephen Bachu
5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
6. Baldassare, Fred. Conflict of interest.
7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner—financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley – Conflict of interest: consults regularly with industry per her cv.
13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John—WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale

drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute no, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

27. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
28. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
29. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.
35. Gary Klecka, worked for Dow for most of this career; now an independent consultant

36. Philip Leber “For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products.”
37. Steven Lewis, Exxon-Mobil for most of his career.
38. Abby Li, most of her career at Monsanto
39. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All’s Not Well)
40. Keith Wilson Lynch
41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
45. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
47. Nygaard, KJ, Exxon Mobil
48. Jon Olson funding from oil and gas companies’ consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
49. John Oneacre, Ground Water Solutions, providing “consulting services to private industry.” Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
51. Thomas Parkerton, Exxon Mobil entire career
52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with Eagle One Green Solutions, LLC described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having “developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+). In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing

bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."

53. Richard Phillips, Exxon Mobil since 1988
54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate: epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.
55. Danny Reible
56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective. (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/) This shows lack of expertise and understanding of existing evidence to the contrary. The candidate also states that "gas as better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing lack of either knowledge or objectivity, since the science increasingly suggests otherwise in terms of lifecycle greenhouse gas emissions.
57. Bert Smith, Chesapeake
58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
59. Joseph Patrick Smith, Exxon
60. Richard K Smith, Nabbors Production Company
61. Paul Street, Nalco chemical company
62. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
63. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
64. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
65. Sanjay Vittale, Shell Oil
66. Douglas Wyatt, URS Corporation—conflict of interest
67. Victor Ziegler, Occidental Petroleum

Thank you and remember God Is Watching! and so is the world!

From: Lynn Anderson
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/18/2012 11:31 AM
Subject: these scientists need to be on EPA board

Also James Northrup, formerly of Atlantic Richfield, could be a great consultant since he knows all of the dangers of this 5 year old experimental method of using dangerous chemicals and far too much water that can NEVER be reclaimed to harvest natural gas. NOT a method we need to use.

1. Henry Anderson

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4. Brownawell, Bruce

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10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

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19. Joseph N. Ryan, U. of Colorado, Boulder

20. Daniel Schlenk

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

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24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

From: Jean Andrews
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/16/2012 08:59 AM
Subject: List of Hydraulic Fracturing Science Advisory Board nominees

December 16, 2012

TO: Ed Hanlon

hanlon.edward@epa.gov

RE: Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:

Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study. The list below has been provided by citizen experts in my region, who I join in support for advocating the selection of a transparent, impartial, and academically "science-based" Board. I wholeheartedly endorse the recommendations below.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. Following this list is a second list of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts

of interest.

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7. Robert Edstrom
8. Elaine M. Faustman
9. Madelon L. Finkel
10. Fred M. Henretig
11. Robert Howarth
12. Anthony Ingraffea
13. Lyman McDonald
14. Lisa McKenzie
15. Karlis Muehlenbach
16. Eileen Murphy
17. Ingrid Padilla
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The scientific credibility of the EPA is damaged by committees with real or perceived bias

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the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

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The following 67 are all unacceptable candidates for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in

their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re going to find you. It’s something people are fearful of, but it’s not a reality.” And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
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5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
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8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner—financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: “In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and a colleague wrote a letter to the technical journal Environmental Health Perspectives about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague

disputed having a conflict of interest."

13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John—WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking:

"One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute no, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

27. James Erb: conflict of interest--consultant to oil and gas industry

(NC presentation:
ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)

28. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
29. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.
35. Gary Klecka, worked for Dow for most of this career; now an independent consultant
36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
37. Steven Lewis, Exxon-Mobil for most of his career.
38. Abby Li, most of her career at Monsanto
39. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
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41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
45. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
47. Nygaard, KJ, Exxon Mobil

48. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.

49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.

50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.

51. Thomas Parkerton, Exxon Mobil entire career

52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with Eagle One Green Solutions, LLC described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having "developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+). In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."

53. Richard Phillips, Exxon Mobil since 1988

54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.

55. Danny Reible

56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/), revealing his lack of expertise and understanding of the existing substantive evidence to the contrary. The candidate also states that "gas is better than coal"
lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc,
revealing his lack of either knowledge or objectivity, since the science on lifecycle greenhouse gas emissions increasingly suggests otherwise.

57. Bert Smith, Chesapeake

58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
59. Joseph Patrick Smith, Exxon
60. Richard K Smith, Nabbors Production Company
61. Paul Street, Nalco chemical company
62. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
63. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
64. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
65. Sanjay Vittale, Shell Oil
66. Douglas Wyatt, URS Corporation—conflict of interest
67. Victor Ziegler, Occidental Petroleum

Sincerely,

Jean Andrews
Athens OH 45701
December 16, 2012

From: Lori Babbey
To: Edward Hanlon/DC/USEPA/US@EPA
Cc: Lori Gourley
Date: 12/16/2012 11:25 PM
Subject: Comments re: Science Advisory Board on Hydraulic Fracturing

December 17, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:

Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. *Following this list* is a *second list* of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

**Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased green house gas (ghg) emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it**

**is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.**

**Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:**

1. Henry Anderson

2. Boufadel, Michel

3. Susan Brantley

4. Brownawell, Bruce

5. Janice Chambers

6. Dzombak, David A.

7. Edstrom, Robert

8. Elaine M. Faustman, Professor Dept.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

12. Anthony Ingraffea

13. Lyman McDonald statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18. Jerome Paulson

19. Joseph N. Ryan, U. of Colorado, Boulder

20. Daniel Schlenk

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

**The scientific credibility of the EPA is damaged by committees with real or perceived bias.**

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and

competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

**By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.**

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," *id.* App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," *id.* § 5(b)(2), and does not contain members with inappropriate special interests. *Id.*§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, *then invitations to address the committee during public meetings are appropriate.* **However, individuals with financial conflicts should not be serving as members of the SAB.**

**The following 67 are all unacceptable candidates** for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial *as evidenced in their publications and public speaking*. Many in this list also do *not* have complete conflict of interest disclosures in their bios.

**Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:**

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re going to find you. It’s something people are fearful of, but it’s not a reality.” And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the

effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)

4. Stephen Bachu
5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
6. Baldassare, Fred. Conflict of interest.
7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner—financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: "In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and a colleague wrote a letter to the technical journal *Environmental Health Perspectives* about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague disputed having a conflict of interest."
13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John—WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't

an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

27. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
28. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
29. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.
35. Gary Klecka, worked for Dow for most of this career; now an independent consultant
36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
37. Steven Lewis, Exxon-Mobil for most of his career.
38. Abby Li, most of her career at Monsanto
39. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
40. Keith Wilson Lynch
41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and

production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
45. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
47. Nygaard, KJ, Exxon Mobil
48. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
51. Thomas Parkerton, Exxon Mobil entire career
52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with **Eagle One Green Solutions, LLC** described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having **"developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).** In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."
53. Richard Phillips, Exxon Mobil since 1988
54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.
55. Danny Reible
56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/), revealing his lack of expertise and understanding of the existing substantive evidence to the contrary. The candidate also states that "gas is better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-

process#.UMrNpHPjlzc, revealing his lack of either knowledge or objectivity, since the science on lifecycle greenhouse gas emissions increasingly suggests otherwise.

57. Bert Smith, Chesapeake
58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
59. Joseph Patrick Smith, Exxon
60. Richard K Smith, Nabbors Production Company
61. Paul Street, Nalco chemical company
62. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
63. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
64. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
65. Sanjay Vittale, Shell Oil
66. Douglas Wyatt, URS Corporation—conflict of interest
67. Victor Ziegler, Occidental Petroleum

Thank you for your consideration of my comments.

Sincerely,

Lori R. Babbey
Newton Falls, OH 44444

From: Hannah Baxter
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/18/2012 11:53 AM
Subject: Comments re: Hydraulic Fracturing Science Advisory Board

December 18, 2012

Edward Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
U.S. EPA Science Advisory Board

Re: Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon,

The following are my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing. (I have also attached my comments as a text document.) I am writing to support the appointment of the following 34 experts to the SAB for the U.S. EPA Hydraulic Fracturing study because of their scientific background, knowledge, experience, expertise, and impartiality. Please note that *following* the list of candidates whose appointment I support, there is *a second list* of candidates whose appointment I strongly oppose.

The hydraulic fracturing boom in my area and across the country has impacted many communities and families. Unfortunately, the impact has been very mixed. Water contamination and air pollution have led to health problems in humans and animals and to the deaths of livestock. Leaks of volatile organic compounds, methane and other gases from wells as well as diesel exhaust from generators and vehicles are contributing to illness as well as to climate change. Inadequate well casings leak produced water laced with carcinogenic chemicals both man-made and naturally occurring and with naturally-occurring radioactive elements. It is easy to see that our increasingly precious freshwater resources are at risk.

With so much at stake, it is absolutely imperative that federal regulation be transparent and free from industry bias and conflicts of interest.

Please appoint the SAB from among qualified, impartial candidates. The following people would be excellent choices for this board. Please consider appointing the board from among these candidates:

1. Daniel Acosta, Jr.
2. Richelle Allen-King
3. Akram Alshawabkeh
4. Henry Anderson

5. Jerad Bales
6. Michel Boufadel
7. Elizabeth Boyer
8. Susan Brantley
9. Bruce Brownawell
10. Janice Chambers
11. David A. Dzombak
12. Robert Edstrom
13. Elaine M. Faustman
14. Madelon L. Finkel
15. Daniel J. Goode
16. Fred M. Henretig
17. Robert Howarth
18. Anthony Ingraffea
19. John C. Kissel
20. Lyman McDonald
21. Lisa McKenzie
22. Karlis Muehlenbach
23. Eileen Murphy
24. Ingrid Padilla
25. Jerome Paulson
26. Joseph N. Ryan
27. Daniel Schlenk
28. Karen Swackhamer
29. Geoffery Thyne
30. Jeanne Van Briessen
31. Avner Vengosh
32. Perry R. Walker
33. Paul Westerhoff
34. Mark Williams

Please keep in mind the important duty of the EPA to appoint experts who are free from industry bias and conflict of interest and who are committed to protecting public health and the environment. As you are aware, the credibility of the EPA is damaged by committees with real or perceived bias. Indeed, by law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.

Committee membership should exclude financially conflicted members as much as possible, so that committees are composed of scientists who are able to provide a fair and complete review of all relevant data or issues. If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, then invitations to address the committee during public meetings are appropriate. However, individuals with financial conflicts should not be serving as members of the SAB.

The following 67 are unacceptable candidates for inclusion on the SAB because of one or more of the following: conflict of interest, lack of scientific expertise, lack of impartiality. Many have not supplied complete conflict of interest disclosures.

Please reject the nominations of the following 66 unacceptable candidates:

1. Stephen W. Almond
2. W. Kenneth Armagost
3. Daniel J. Arthur
4. E. Scott Bair
5. Fred. Baldassare
6. Terence Barry
7. Thomas R. Bratton
8. James Bruckner
9. David Burnett
10. Timothy E. Buscheck
11. Gail Charnley
12. Corrie Clark
13. Scott Bradley Cline
14. Nancy Pees Coleman
15. James W. Collins
16. John Corra
17. Eric Daniels
18. Thomas Davis
19. Joseph deGeorge
20. Shari Dunn-Norman
21. Lloyd East
22. Michael Economides
23. Timothy Ellison
24. Stuart Ellsworth
25. Derek Elsworth
26. James Erb
27. Gordon Fassett
28. John V. Fontana
29. Thomas D. Hayes
30. Walter R. Hufford
31. Ron Hyden
32. Stephen Jester
33. George E. King
34. Gary Klecka
35. Philip Leber
36. Steven Lewis
37. Abby Li
38. Sean Lieske
39. Keith Wilson Lynch
40. Dean Malouta
41. Steve Mamerow
42. Carl T. Montgomery
43. Daniel Moos
44. Michael Nickolaus
45. Jean-Philippe Nicot

46. KJ Nygaard
47. Jon Olson
48. John Oneacre
49. Thomas Parkerton
50. Deepak Patil
51. Richard Phillips
52. Laura Plunkett
53. Danny Reible
54. James Saiers
55. Bert Smith
56. Donald Siegel
57. Joseph Patrick Smith
58. Richard K Smith
59. Karen Spray
60. Paul Street
61. Talib Syed
62. Geoffrey Thyne
63. James John Tintera
64. Rock Vitale
65. Sanjay Vitthal
66. Douglas Wyatt
67. Victor Ziegler

Thank you for your attention to this important matter,

Hannah Baxter
Lakewood, OH 44107

From: Carol Beale
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/16/2012 01:26 PM
Subject: Comments on Science Advisory Board cadidtates

To: Ed Hanlon, Designated Federal Officer, EPA Science Advisory Board Staff Office

As an Ohio resident I am very concerned with safe drinking water and I appreciate the efforts of the EPA to protect this vital resource. Therefore I feel it is very important that members of the new Science Advisory Board be particularly concerned about the long term safety of our drinking water supply and not be swayed by financial concerns of profit-making corporations or individuals. I would like to recommend the following 26 people who seem to have the qualifications necessary and do not have conflicts of interest.
Thank you, Carol Beale, Athens, Ohio, 45701

1. Henry Anderson
1. Boufadel, Michel

1. Susan Brantley

1. Brownawell, Bruce

1. Janice Chambers

1. Dzombak, David A.

1. Edstrom, Robert

1. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

1. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

1. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

1. Robert Howarth

1. Anthony Ingraffea

1. Lyman McDonald statistician and biologist

1. Lisa McKenzie

1. Karlis Muehlenbach

1. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

1. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

1. Jerome Paulson

1. Joseph N. Ryan, U. of Colorado, Boulder

1. Daniel Schlenk

1. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

1. Geoffery Thyne

1. Jeanne Van Briessen

1. Avner Vengosh

1. Perry R. Walker

1. Paul Westerhoff

From: L.C. Berlekamp
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/18/2012 12:32 AM
Subject: Public Comment for USEPA Hydraulic Fracturing SAB Panel - Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

December 16, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:
Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. *Following this list* is a *second list* of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

**Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is**

**essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.**

**Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:**

1. Henry Anderson
2. Boufadel, Michel
3. Susan Brantley
4. Brownawell, Bruce
5. Janice Chambers
6. Dzombak, David A.
7. Edstrom, Robert
8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington
9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University
10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist
11. Robert Howarth
12. Anthony Ingraffea
13. Lyman McDonald statistician and biologist
14. Lisa McKenzie
15. Karlis Muehlenbach
16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination
17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18. Jerome Paulson

19. Joseph N. Ryan, U. of Colorado, Boulder

20. Daniel Schlenk

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff
27. Mr. James Northrup

**The scientific credibility of the EPA is damaged by committees with real or perceived bias**

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

I also feel that independent radiation experts need be placed on this panel, given that shale can contain high levels of radioactivity and radiation is one of the contaminants that will persist in the environment the longest - and can bio-accumulate.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

**By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.**

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3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re going to find you. It’s something people are fearful of, but it’s not a reality.” And

from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)

4. Stephen Bachu
5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
6. Baldassare, Fred. Conflict of interest.
7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner—financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: "In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and a colleague wrote a letter to the technical journal *Environmental Health Perspectives* about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague disputed having a conflict of interest."
13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John—WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)

26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

27. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
28. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
29. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.
35. Gary Klecka, worked for Dow for most of this career; now an independent consultant
36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
37. Steven Lewis, Exxon-Mobil for most of his career.

38. Abby Li, most of her career at Monsanto
39. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
40. Keith Wilson Lynch
41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
45. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
47. Nygaard, KJ, Exxon Mobil
48. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
51. Thomas Parkerton, Exxon Mobil entire career
52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with **Eagle One Green Solutions, LLC** described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having **"developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).** In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."
53. Richard Phillips, Exxon Mobil since 1988
54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:

epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad

Her presentations show bias as suggested by financial conflict of interest.

55. Danny Reible
56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/), revealing his lack of expertise and understanding of the existing substantive evidence to the contrary. The candidate also states that "gas is better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing his lack of either knowledge or objectivity, since the science on lifecycle greenhouse gas emissions increasingly suggests otherwise.
57. Bert Smith, Chesapeake
58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
59. Joseph Patrick Smith, Exxon
60. Richard K Smith, Nabbors Production Company
61. Paul Street, Nalco chemical company
62. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
63. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
64. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
65. Sanjay Vittale, Shell Oil
66. Douglas Wyatt, URS Corporation—conflict of interest
67. Victor Ziegler, Occidental Petroleum

Thank you for your attention,
Lauren Berlekamp
Huron, Ohio 44839
Dec. 16, 2012

From: Renee Bogue
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 03:52 PM
Subject: Nominations for the SAB on fracking

Dear Mr. Hanlon,

I would like to nominate the following candidates who have shown objectivity and expertise in this field i.e. fracking. It is crucial that we protect public health at this critical juncture.

1. Henry Anderson
2. Michael Boufadel
3. Susan Brantley
4. Bruce Bonawell
5. Heather Cantino
6. Janice Chambers
7. David Dzombak
8. Robert Epstrom
9. Elaine Faustman
10. Dr. Madelon Finkle
11. Fred Henretic
12. Lyman McDonald
13. Lisa McKenzie
14. Karlis Muehlenbach
15. Eileen Murphy
16. JP Nico
17. James Northrup
18. Dr. Ingrid Padilla
19. Jerome Paulson
20. David Schlenk
21. Allen Shapiro
22. Dr. Karen Swackhamer
23. Geoffrey Thyne
24. Jeane VanBriesen
25. Avner VanGosh
26. Perry Walker
27. Paul Westerhoff
28. Anthony Ingraffea
29. Joe Ryan

Thank you for your consideration,

Renee Bogue
Massillon, OH

I try to check my email once a day; however, if you don't hear back from me or if you need to communicate with me sooner please call my home phone.  I will return your call as quickly as possible.  Thank you!

From: Christine Borello
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/16/2012 11:26 AM
Subject: SAB Comments Regarding Fracking Panel To Be Chosen

**US EPA Headquarters**

**Re: Comments for the selection of the final US EPA Science Advisory Board ( SAB) Panel to review**
**Horizontal Fracking**

**Dear US EPA:**

Citizens understand all too well how extremely political this particular issue is. We understand that EPA is under immense pressure, (as they always have been) , by industry, politicians and industry allies. However, the US EPA's mandate and indeed, your oath taken, as public servants, to uphold the Constitution to first and foremost *protect the health and welfare* of Americans - not just from enemies from without, but to protect from possible dangers from within. We believe this must be your guide in selecting this very Science Advisory Board Panel to review Horizontal Fracking Concerns, given the incredibly high stakes regarding public health.

As someone who has in the past dealt with the Science Advisory Board personally at our Uniontown IEL Superfund Site, Ohio in the 1990s, used as a case in point for the rest of the nation, my concerns are numerous regarding the usage of this panel, given that experience. We saw the US EPA and other agencies ***hide behind that final SAB report*** **to avoid being held accountable down the road**, even though investigations later revealed that many on the SAB panel were **not even qualified** to review specific radiation test methods - supposedly their main task in convening the panel. Indeed, it is believed that the results of that highly questionable SAB report issued in 1994 have had grave and far reaching consequences, not only for our Superfund site specifically, but we believe the SAB report was used by EPA to *seriously undermine the concerns that had been expressed for many years internally by US EPA's own Research & Development S*cientists, when those experts tried to stop the usage of the "US EPA Finished Drinking Water 900 Method," when it came to testing for radiation of **raw, untreated water supplies i.e, typically involved at toxic dumpsites around the country**. (We are concerned this outdated, shoddy policy may still be in effect today, impacting any sampling for radiation regarding fracking waste water).

**Therefore, perhaps we understand better than most, how the Science Advisory Board report can be used to diminish any other technical concerns voiced thereafter, even from US EPA's own technical experts, or other government agencies, and independent academia, *no matter how valid they may be. Therefore, e*very effort must be made by your staff to compile a final panel list that is comprised of not only truly technically**

***qualified*** **and objective members of various diciplines; individuals should have a verifiable personal history that demonstrates they have previously conducted themselves in a fair and balanced way, with no financial ties to the said industry, either directly or indirectly (via current university grants etc.) With this criteria in mind, please further consider the following:**

*** Carefully consider the list submitted to you by Ohio Buckeye Forest Council's Ms. Cantino**

*** Select Mr. Joseph Ryan, who has radiation expertise, and at least one other radiation expert - specifically a qualified "radio chemist" . This is essential...Radiation may be the one of the most serious, long lasting health concerns involved with fracking. The panel will be seriously technically lacking from the onset, if it fails to include such a qualified radio chemist.**

*** Select Prof. Anthony Ingraffea, extremely qualified on the matter of fracking as an engineer and professor**

*** Develop a strict process format and make this process public immediately prior to the process beginning*, that outlines in a very concise, detailed manner how the panel's drafts and ultimate final report(s) will be carried out, including how/who will author the final version*.**

NOTE: *We had learned at our IEL site, that while there may have been excellent draft work products during this process, from the subgroup's individually assigned tasks, we were told that unfortunately, the notes from those were then re written by* ***just two individuals****, with reportedly, much "editing" taking place by those two individuals. The public needs to be told how the report is to evolve, what checks and balances will there be along the way right up to when the report hits the streets. I.e, will a "draft" report be released for public comment first with a formal comment period*?

**Bottom line: If EPA chooses to select panelists with clear ties to industry ( ie., "shills" as they are called) clearly this process will be tainted from day one. However, even beyond that, even if a solid balanced, and qualified committee *is* selected on the front end, there must be safeguards in place to protect the integrity of this process to enhance credibility in this process.**

Regards,

Christine Borello, President
Uniontown IEL Superfund Site, Ohio
& Stark Concerned Citizens ( currently involved with Fracking) Plain Twp. Ohio

From: Darla Bruno
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/16/2012 02:19 PM
Subject: Comments for final US EPA Science Advisory Board ( SAB) Panel to review Horizontal Hydraulic Fracturing

Mr. Hanlon,

I suggest Anthony Ingraffea and Joseph Ryan. Their credentials make them outstanding candidates for this panel. Disappointed that John 'Chip' Northrup is not on this final list. He would have been a good addition. Sadly, I saw way too many pro-industry names on the list. Gives me a bad feeling of how this is going to turn out. I hope I am wrong. Last thing we need is a sham report influenced by industry. Just a reminder that lives are at stake. Having said that, it reminds me how disappointing it is that Theo Colburn isn't on the list either.

Darla Bruno
Lebanon, NH (recent shale gas refugee from OH)

December 19, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

**FROM:** Leah Cain, Windham, Ohio 44288
Dear Mr. Hanlon:
Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. *Following this list* is a *second list* of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

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15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John—WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

    All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.
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30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
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33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.
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48. Jon Olson funding from oil and gas companies’ consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
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52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with **Eagle One Green Solutions, LLC** described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having **"developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).** In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."
53. Richard Phillips, Exxon Mobil since 1988
54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
    epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
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Thank you for your attention,
Leah Cain
Windham,Ohio
44288
Dec. 19,2012

From: Glenn Campbell
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/16/2012 09:50 AM
Subject: Comments on Hydraulic Fracturing Science Advisory Board

***RE:*** *Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board*

***FROM:*** *Glenn Campbell, Lakewood, OH 44107*

**Dear Mr. Hanlon:**

Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. *Following this list* is a *second list* of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

**Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.**

**Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:**

- Henry Anderson
- Boufadel, Michel
- Susan Brantley
- Brownawell, Bruce
- Janice Chambers
- Dzombak, David A.
- Edstrom, Robert

- Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington
- Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University
- Henretig, Fred M., University of Pennsylvania, pediatric toxicologist
- Robert Howarth
- Anthony Ingraffea
- Lyman McDonald statistician and biologist
- Lisa McKenzie
- Karlis Muehlenbach
- Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination
- Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez
- Jerome Paulson
- Joseph N. Ryan, U. of Colorado, Boulder
- Daniel Schlenk
- Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.
- Geoffery Thyne
- Jeanne Van Briessen
- Avner Vengosh
- Perry R. Walker
- Paul Westerhoff

**The scientific credibility of the EPA is damaged by committees with real or perceived bias.** Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

**On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption.**

**This *scientific* review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.**

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

**By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.**

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," *id.* App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," *id.* § 5(b)(2), and does not contain members with inappropriate special interests. *Id.*§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, *then invitations to address the committee during public meetings are appropriate.* **However, individuals with financial conflicts should not be serving as members of the SAB.**

**The following 67 are all unacceptable candidates** for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial *as evidenced in their publications and public speaking*. Many in this list also do *not* have complete conflict of interest disclosures in their bios.

**Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:**

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- W. Kenneth Armagost, Andarko Petroleum
- Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re

going to find you. It's something people are fearful of, but it's not a reality." And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)

- Stephen Bachu
- E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
- Baldassare, Fred. Conflict of interest.
- Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
- Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
- James Bruckner—financial ties to industry
- Burnett, David
- Buscheck, Timothy E
- Gail Charnley – Conflict of interest: consults regularly with industry per her cv.
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- Cline, Scott Bradley
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Thank you for your attention,
Glenn Campbell
Lakewood, OH 44107
Dec. 16, 2012

December 16, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
1200 Pennsylvania Ave., N.W., Washington, D.C. 20460

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

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71. Stephen Bachu
72. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed in submitted bio.
73. Baldassare, Fred. Conflict of interest.
74. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
75. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
76. James Bruckner—financial ties to industry
77. Burnett, David
78. Buscheck, Timothy E
79. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: "In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and a colleague wrote a letter to the technical journal *Environmental Health Perspectives* about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague disputed having a conflict of interest."

80. Corrie Clark
81. Cline, Scott Bradley
82. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
83. Collins, James W
84. Corra, John—WY political conflict of interest
85. Eric Daniels (Chevron)
86. Thomas Davis, CO School of Mines
87. Joseph deGeorge (Merck)
88. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
89. Lloyd East (Halliburton)
90. Economides, Michael (consultant; editor-in-chief Energy Tribune
91. Timothy Ellison (Exxon-Mobil)
92. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
93. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

    All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.
94. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
95. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…"

(hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.

96. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
97. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
98. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
99. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
100. Jester, Stephen, ConocoPhillips
101. George E. King, Apache Corp.
102. Gary Klecka, worked for Dow for most of this career; now an independent consultant
103. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
104. Steven Lewis, Exxon-Mobil for most of his career.
105. Abby Li, most of her career at Monsanto
106. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
107. Keith Wilson Lynch
108. Dean Malouta (most of his career with Shell)
109. Steve Mamerow (Pioneer Natural Resources)
110. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
111. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
112. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
113. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
114. Nygaard, KJ, Exxon Mobil
115. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
116. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
117. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
118. Thomas Parkerton, Exxon Mobil entire career
119. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current

employment with **Eagle One Green Solutions, LLC** described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having **"developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).** In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."

120. Richard Phillips, Exxon Mobil since 1988
121. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.
122. Danny Reible
123. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/), revealing his lack of expertise and understanding of the existing substantive evidence to the contrary. The candidate also states that "gas is better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing his lack of either knowledge or objectivity, since the science on lifecycle greenhouse gas emissions increasingly suggests otherwise.
124. Bert Smith, Chesapeake
125. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
126. Joseph Patrick Smith, Exxon
127. Richard K Smith, Nabbors Production Company
128. Paul Street, Nalco chemical company
129. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
130. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
131. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
132. Sanjay Vittale, Shell Oil
133. Douglas Wyatt, URS Corporation—conflict of interest
134. Victor Ziegler, Occidental Petroleum

Thank you for your attention,
Heather Cantino
Athens, Ohio 45701
Dec. 16, 2012

From: "Lynn Chapman"
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 02:41 PM
Subject: SAB Panel Candidates

Dear Mr. Hanlon:

I am an Ohio resident. The Ohio Department of Natural Resources (ODNR) and its spin-off, the Division Of Oil and Gas Resources Management (DOGRM) have established near dictatorial control over regulation of the oil and gas industry within the state. In practice, this self regulation is tantamount to non-regulation. For the past two years I have witnessed the results of the incestuous relationship between the drilling industry and its supposed regulators. I can provide numerous documented and specific examples of violations of Ohio's advertised "most stringent (drilling) regulations in the US". Although these violations involve basic health, safety and protection of the environment for conventional drilling/production operations, the entrenched regulatory culture guarantees more of the same for shale gas and oil production. It appears that if it will save the industry a buck, all regulations are "negotiable" with the state. SAB members on either the direct or indirect payroll of the oil and gas industry have inherent conflicts of interest and are undoubtedly biased.

I therefore support nomination of the listed 27 candidates based on their scientific expertise, knowledge, and experience and especially for their impartiality.

Following this list is a second list of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Please consider appointing your committee from the following 27 people, those who clearly show evidence of scientific objectivity and appropriate expertise:

1. Henry Anderson
2. Boufadel, Michel
3. Susan Brantley
4. Bruce Brownawell
5. Janice Chambers
6. David A. Dzombak

7. Robert Edstrom,
8. Elaine M. Faustman
9. Dr. Madelon L. Finkel
10. Henretig
11. Robert Howarth
12. Anthony Ingraffea
13. Lyman McDonald statistician and biologist
14. Lisa McKenzie
15. Karlis Muehlenbach
16. Eileen Murphy
17. Dr. Ingrid Padilla
18. Jerome Paulson
19. Joseph N. Ryan, U. of Colorado, Boulder
20. Daniel Schlenk
21. Dr. Karen Swackhamer
22. Geoffery Thyne
23. Jeanne Van Briessen
24. Avner Vengosh
25. Perry R. Walker
26. Paul Westerhoff
27. James Northrup

Please do not consider the following SAB candidates based on conflicts of interest and/or lack of scientific objectivity and appropriate expertise:

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, "These (state regulatory agencies) have field inspectors, rules and regulations, if you're a bad actor, not doing a good job, they're going to find you. It's something people are fearful of, but it's not a reality." And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)

4. Stephen Bachu
5. E. Scott Bair - conflict of interest with financial ties to industry. Recent funding not listed.
6. Baldassare, Fred. Conflict of interest.
7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner-financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley - Conflict of interest: consults regularly with industry per her cv.
13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John-WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute no, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' ...As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you

manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

27. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
28. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission..." (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
29. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.
35. Gary Klecka, worked for Dow for most of this career; now an independent consultant
36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
37. Steven Lewis, Exxon-Mobil for most of his career.
38. Abby Li, most of her career at Monsanto
39. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
40. Keith Wilson Lynch
41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
43. Carl T. Montgomery, NSI Technologies works for industry, paid

promoter of industry
44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
45. Michael Nickolaus-not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
47. Nygaard, KJ, Exxon Mobil
48. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
51. Thomas Parkerton, Exxon Mobil entire career
52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with Eagle One Green Solutions, LLC described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having "developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+). In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."
53. Richard Phillips, Exxon Mobil since 1988
54. Laura Plunkett, Integrative Biostrategies, LLC -industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.
55. Danny Reible

56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective. (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing /) This shows lack of expertise and understanding of existing evidence to the contrary. The candidate also states that "gas as better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing lack of either knowledge or objectivity, since the science increasingly suggests otherwise in terms of lifecycle greenhouse gas emissions.
57. Bert Smith, Chesapeake
58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
59. Joseph Patrick Smith, Exxon
60. Richard K Smith, Nabbors Production Company
61. Paul Street, Nalco chemical company
62. Talib Syed - not a scientist. Production engineer, whole career has been in industry.
63. James John Tintera - not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
64. Rock Vitale, Environmental Standards, Inc.-not a scientist, works entirely for industry "managing liability". No advanced degree.
65. Sanjay Vittale, Shell Oil
66. Douglas Wyatt, URS Corporation-conflict of interest
67. Victor Ziegler, Occidental Petroleum

From: Tom Cvetkovich
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/17/2012 11:53 AM
Subject: fracking SAB

Modern high pressure horizontal fracking technology promises to be one of the largest terra-forming experiments humans have ever undertaken.

Please consider the evaluations of environmentalist (such as Heather Cantino.) Do not fill the SAB with industry insiders. Consider our children's children, consider the vagaries of natural systems (geology and hydrology), and the reality of human caused global warming.

Let us er on the side of caution and move to a truly workable symbiosis with nature.

thank you,
Tom Cvetkovich

--
Thomas Cvetkovich
for all your holographic needs...

Youngstown, OH 44509

comments re SAB nominees HC 12-14-12-1.docx December 14, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

**FROM:** Heather Cantino, Athens OH 45701

Dear Mr. Hanlon:
Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. *Following this list* is a *second list* of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

**Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.**

**Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:**

53. Henry Anderson

54. Boufadel, Michel

55. Susan Brantley

56. Brownawell, Bruce

57. Janice Chambers

58. Dzombak, David A.

59. Edstrom, Robert

60. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

61. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

62. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

63. Robert Howarth

64. Anthony Ingraffea

65. Lyman McDonald statistician and biologist

66. Lisa McKenzie

67. Karlis Muehlenbach

68. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

69. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

70. Jerome Paulson

71. Joseph N. Ryan, U. of Colorado, Boulder

72. Daniel Schlenk

73. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

74. Geoffery Thyne

75. Jeanne Van Briessen

76. Avner Vengosh

77. Perry R. Walker

78. Paul Westerhoff

**The scientific credibility of the EPA is damaged by committees with real or perceived bias**

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

**By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.**

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," *id.* App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," *id.* § 5(b)(2), and does not contain members with inappropriate special interests. *Id.*§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, *then invitations to address the committee during public meetings are appropriate.* **However, individuals with financial conflicts should not be serving as members of the SAB.**

**The following 67 are all unacceptable candidates** for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial *as evidenced in their publications and public speaking*. Many in this list also do *not* have complete conflict of interest disclosures in their bios.

**Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:**

135. Stephen Almond, MeadWestvaco
136. W. Kenneth Armagost, Andarko Petroleum
137. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, "These (state regulatory agencies) have field inspectors, rules and regulations, if you're a bad actor, not doing a good job, they're going to find you. It's something people are fearful of, but it's not a reality." And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
138. Stephen Bachu
139. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
140. Baldassare, Fred. Conflict of interest.
141. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
142. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
143. James Bruckner—financial ties to industry
144. Burnett, David
145. Buscheck, Timothy E
146. Gail Charnley
147. Corrie Clark
148. Cline, Scott Bradley
149. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
150. Collins, James W
151. Corra, John—WY political conflict of interest
152. Eric Daniels (Chevron)
153. Thomas Davis, CO School of Mines
154. Joseph deGeorge (Merck)

155. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
156. Lloyd East (Halliburton)
157. Economides, Michael (consultant; editor-in-chief Energy Tribune
158. Timothy Ellison (Exxon-Mobil)
159. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
160. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

    All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.
161. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
162. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
163. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
164. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
165. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
166. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
167. Jester, Stephen, ConocoPhillips

168. George E. King, Apache Corp.
169. Gary Klecka, worked for Dow for most of this career; now an independent consultant
170. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
171. Steven Lewis, Exxon-Mobil for most of his career.
172. Abby Li, most of her career at Monsanto
173. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
174. Keith Wilson Lynch
175. Dean Malouta (most of his career with Shell)
176. Steve Mamerow (Pioneer Natural Resources)
177. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
178. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
179. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
180. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
181. Nygaard, KJ, Exxon Mobil
182. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
183. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
184. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
185. Thomas Parkerton, Exxon Mobil entire career
186. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with **Eagle One Green Solutions, LLC** described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having **"developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).** In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters

treated with Fe6+ can be wholly recycled and reused for well site-completion operations."

187. Richard Phillips, Exxon Mobil since 1988
188. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.
189. Danny Reible
190. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective. (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/) This shows lack of expertise and understanding of existing evidence to the contrary. The candidate also states that "gas as better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing lack of either knowledge or objectivity, since the science increasingly suggests otherwise in terms of lifecycle greenhouse gas emissions.
191. Bert Smith, Chesapeake
192. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
193. Joseph Patrick Smith, Exxon
194. Richard K Smith, Nabbors Production Company
195. Paul Street, Nalco chemical company
196. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
197. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
198. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
199. Sanjay Vittale, Shell Oil
200. Douglas Wyatt, URS Corporation—conflict of interest
201. Victor Ziegler, Occidental Petroleum

Thank you for your attention,
Heather Cantino
Athens, Ohio 45701
Dec. 14, 2012

From: "Gay Dalzell (Google Drive)"
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/17/2012 09:38 PM
Subject: SAB nominees comments.doc (hanlon.edward@epa.gov)

Attached: SAB nominees comments.doc
Dear Mr. Hanlon,

Attached are my comments on the Science Advisory Board Nominees as a result of extensive research shared between concerned local citizens.

Thank you for your time and consideration in the matter,
Gay Dalzell

SAB nominees comments.doc

December 16, 2012
**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004
**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board
Dear Mr. Hanlon:
Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.
I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.
Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. *Following this list* is a *second list* of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

**Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.**

**Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:**

1. Henry Anderson
2. Boufadel, Michel
3. Susan Brantley
4. Brownawell, Bruce
5. Janice Chambers
6. Dzombak, David A.
7. Edstrom, Robert
8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington
9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University
10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist
11. Robert Howarth
12. Anthony Ingraffea
13. Lyman McDonald statistician and biologist
14. Lisa McKenzie
15. Karlis Muehlenbach
16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination
17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez
18. Jerome Paulson
19. Joseph N. Ryan, U. of Colorado, Boulder
20. Daniel Schlenk
21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.
22. Geoffery Thyne
23. Jeanne Van Briessen
24. Avner Vengosh
25. Perry R. Walker
26. Paul Westerhoff

**The scientific credibility of the EPA is damaged by committees with real or perceived bias**

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

**On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.**

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

**By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.**

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," *id.* App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," *id.* § 5(b)(2), and does not contain members with inappropriate special interests. *Id.*§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, *then invitations to address the committee during public meetings are appropriate.* **However, individuals with financial conflicts should not be serving as members of the SAB.**

**The following 67 are all unacceptable candidates** for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial *as evidenced in their publications and public speaking*. Many in this list also do *not* have complete conflict of interest disclosures in their bios.

**Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:**

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum

3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, "These (state regulatory agencies) have field inspectors, rules and regulations, if you're a bad actor, not doing a good job, they're going to find you. It's something people are fearful of, but it's not a reality." And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)

4. Stephen Bachu

5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.

6. Baldassare, Fred. Conflict of interest.

7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations

8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.

9. James Bruckner—financial ties to industry

10. Burnett, David

11. Buscheck, Timothy E

12. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: "In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and a colleague wrote a letter to the technical journal *Environmental Health Perspectives* about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague disputed having a conflict of interest."

13. Corrie Clark

14. Cline, Scott Bradley

15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)

16. Collins, James W

17. Corra, John—WY political conflict of interest

18. Eric Daniels (Chevron)

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20. Joseph deGeorge (Merck)

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22. Lloyd East (Halliburton)
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25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'" All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.
27. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
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30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.

35. Gary Klecka, worked for Dow for most of this career; now an independent consultant

36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."

37. Steven Lewis, Exxon-Mobil for most of his career.

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51. Thomas Parkerton, Exxon Mobil entire career

52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with **Eagle One Green Solutions, LLC** described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having **"developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).** In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters

treated with Fe6+ can be wholly recycled and reused for well site-completion operations."

53. Richard Phillips, Exxon Mobil since 1988

54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.

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56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/), revealing his lack of expertise and understanding of the existing substantive evidence to the contrary. The candidate also states that "gas is better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing his lack of either knowledge or objectivity, since the science on lifecycle greenhouse gas emissions increasingly suggests otherwise.

57. Bert Smith, Chesapeake

58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)

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64. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.

65. Sanjay Vittale, Shell Oil

66. Douglas Wyatt, URS Corporation—conflict of interest

67. Victor Ziegler, Occidental Petroleum

Thank you for your time and consideration in this matter,
Gay Dalzell
Stewart, OH 45778

From: Julia Fuhrman Davis
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 10:02 AM
Subject: SAB recommendations

Hello Mr. Hanlon

Please accept these names for your EPA Science Advisory Board on the issue of natural gas hydraulic fracturing:

+ Anthony Ingraffea

+ Avner Vengosh

+ Jeane VanBriesen

+ Allen Shapiro

+ JP Nicot

+ Lisa McKenzie

Thank you, Julia Fuhrman Davis, North Lima, Ohio 44452

From: Valerie Dearing
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 06:09 AM
Subject: Science Advisory Board for Hydraulic Fracturing

Dear Mr. Hanlon,
As I have been researching the practices of the Oil and Gas industry for almost a year, I have recognized some alarming facts. The industry is prone to sway the facts of harm done to the environment and our citizens very much the same as the tobacco industry did with denying cancer and secondhand smoke facts. Therefore, it is my pleasure to recommend the following candidates for the SAB through the USEPA. They are professional scientists, impartial, and display excellent leadership. The others NOT on this list have ties to the Oil and Gas corporations and are not forthcoming with truthful, accurate findings. Sadly, as the scewing of science based findings tied to the Oil&Gas industry has been practiced in the past has led to disasterous results. It is embarrassing for the state of Ohio and shows recklessness, cover ups, and uncaring in the industry. Let's allow the following scientists to protect our citizens and natural world.

Please consider the following outstanding professionals in mind when choosing wisely for the SAB.
Henry Anderson
Michel Boufadel
Susan Brantly
Bruce Brownawell
Janice Chambers
David Dzombak
Robert Edstrom
Elaine Faustman
Dr. Madelon Finkel
Fred Henretig
Robert Howarth
Anthony Ingraffea
Lymen McDonald
Lisa McKenzie
Karlis Muhlenbach
Eileen Murphy
Dr. Ingrid Padilla
Jerome Paulson
Joseph Ryan
Daniel Schlenk
Dr. Karen Swackhamer
Geoffery Thyne
Jeanne VanBriessen
Amer Vengosh

Perry Walker
Paul Westerholf

These are the leaders our state needs because they are able to do their job accurately.
Thank you.
Valerie Dearing
Youngstown, OH. 44514

From: Pat Denny
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 04:53 PM
Subject: Hydraulic Fracturing Science Advisory Board Candidates

TO: Mr. Edward Hanlon
FROM: Patricia and Donald Denny, 7465 Mountain Quail Pl, Painesville OH 44077-9341
RE: Horizontal Hydraulic Fracturing Science Advisory Board Candidates
DATE: December 19, 2012

Dear Mr. Hanlon:

Living in Lake County, Ohio, a center of recent and heavy oil and gas leasing in an environmentally pristine area, we write to urge you to appoint to the SAB people who are not connected to the oil and gas industry. Having attended three meetings hosted by leasing agents, we are painfully aware of the industry's unscrupulous methods and high pressure sales tactics. Very little, if anything, is done to fully inform their lease signers about the many immediate and future environmental risks associated with every aspect of the horizontal hydraulic fracturing drilling and extraction process.

The vast majority of leasing is occurring in an area where property owners rely upon private water wells for their water. The local officials have no say over proximity of drilling to water sources like creeks, streams, rivers, and lakes. Some of these are the most pristine in the state of Ohio. In addition to water concerns, there are very significant air pollution concerns that are coming to light from studies done in other states where these kinds of intensely industrialized methods have been in effect. There are also property value concerns about turning people's living environments into industrialized zones which make their neighborhoods unrecognizable.

One of the most despicable aspects of all of this is that the industry in 2004, through their unjust advantages in political venues, managed to strip county and local officials of any ability to zone for this disruptive and dangerous activity. All power rests with the oil and gas companies and their agents, and in the state capitals which have been dominated by those who have been placed into office with the hefty campaign contributions of this industry. Local officials throw up their hands and say they have no control when confused and concerned citizens approach them about all this. Democratic principles had long been abandoned in favor of oil and gas companies.

Looking at the list of candidates for this extremely important panel, we find it very difficult to accept the fact that so many industry-supported persons could have appeared on it. Our experiences with the industry people and with those in state agencies who are supposed to "regulate" the industry definitely have conflicts of interest and should not be considered for the panel. Instead the general public should be served with the appointment of quality candidates who have no former, present, or future ties to the industry.

We concur with the assessments and recommendations made by Heather Cantino of Athens, Ohio. The preferred candidates from the point of view of those who are concerned about the environment are the following 28 people:

Henry Anderson
Michel Boufadel
Susan Brantley
Bruce Brownawell
Janice Chambers
David A. Dzombak
Robert Edstrom
Elaine M. Faustman
Dr. Madelon L. Finkel
Fred M. Henretig
Robert Howarth
Anthony Ingraffea
Lyman McDonald
Lisa McKenzie
Karlis Muehlenbach
Eileen Murphy
J.P. Nicot
Dr. Ingrid Padilla
Jerome Paulson
Allen Shapiro
Joseph N. Ryan
Daniel Schlenk
Dr. Karen Swackhamer
Geoffery Thynes
Jeanne Van Briessen
Avner Vengosh
Perry R. Walker
Paul Westerhoff

Thank you for you kind an diligent attention to this matter of utmost importance for a clean and safe environment.

Patricia and Donald Denny
Painesville OH 44077-9341

From: William D
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/17/2012 11:31 AM
Subject: Public Comment on Announced List for Hydraulic Fracturing Science Advisory Board

TO:
Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
USEPA Science Advisory Board (1400R),
1200 Pennsylvania Ave.,
N.W., Washington, D.C. 20460

FROM:
William Drelles
3013 Lenox New Lyme Rd
Jefferson, Ohio 44047

RE: Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list ofcandidates announced at Yosemite.epa.gov re: public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:

Please accept and convey the following as my comments on the nomination of candidates for inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am a resident of Lenox Township in southern Astabula County, Ohio. My family and I are critical stakeholders of this SAB, since we are homeowners and operate an organic farm. According to the most current geological maps, there are likely to be significant deposits of oil in the Utica formation close by. This means that our community will be impacted by Hydraulic Fracturing over the next few years.

Please consider appointing your committee from the following 26 people. I believe these nominees will ensure that there is a balanced, objective composition of scientific experts on the SAB.

1. Henry Anderson

2. Boufadel, Michel

3. Susan Brantley

4. Brownawell, Bruce

5. Janice Chambers

6. Dzombak, David A.

7. Edstrom, Robert

8. Elaine M. Faustman, Professor Depy.of Environmental and OccupationalHealth Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

12. Anthony Ingraffea

13. Lyman McDonald- statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

17. Dr. Ingrid Padilla, full professor in Environmental and WaterResources Engineering in the Department of Civil Engineering and Surveyingand the Director of the Environmental Engineering Laboratory (EEL) at the
University of Puerto Rico, Mayagüez

18. Jerome Paulson

19. Joseph N. Ryan, U. of Colorado, Boulder

20. Daniel Schlenk

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Directorof the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr.Arthur works completely with and for industry.
4. Stephen Bachu
5. E. Scott Bair - conflict of interest with financial ties to industry. Recent funding not listed.
6. Baldassare, Fred. Conflict of interest.
7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner-financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley - Conflict of interest: consults regularly with industry per her cv.
13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman
16. Collins, James W
17. Corra, John-WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry.
26. Derek Elsworth
27. James Erb: conflict of interest--consultant to oil and gas industry
28. Fassett, Gordon, HDR Engineering, Inc.
29. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"

32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.
35. Gary Klecka, worked for Dow for most of this career; now an independent consultant
36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
37. Steven Lewis, Exxon-Mobil for most of his career.
38. Abby Li, most of her career at Monsanto
39. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by hydraulic fracturing
40. Keith Wilson Lynch
41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI)
45. Michael Nickolaus-not a scientist, works for industry-funded (API among others) organization.
46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
47. Nygaard, KJ, Exxon Mobil
48. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work.
51. Thomas Parkerton, Exxon Mobil entire career
52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with Eagle One Green Solutions LLC.
53. Richard Phillips, Exxon Mobil since 1988
54. Laura Plunkett, Integrative Biostrategies, LLC -industry consultant, conflict of interest.
55. Danny Reible
56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective.
57. Bert Smith, Chesapeake
58. Donald Siegel
59. Joseph Patrick Smith, Exxon
60. Richard K Smith, Nabbors Production Company
61. Paul Street, Nalco chemical company
62. Talib Syed - not a scientist. Production engineer, whole career has been in industry.
63. James John Tintera - not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.

64. Rock Vitale, Environmental Standards, Inc.-not a scientist, works entirely for industry "managing liability". No advanced degree.
65. Sanjay Vittale, Shell Oil
66. Douglas Wyatt, URS Corporation-conflict of interest
67. Victor Ziegler, Occidental Petroleum

Thank you for your attention

William G Drelles
Jefferson, Ohio 44047

From: "adugar" <adugar@ndec.org>
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/17/2012 10:38 AM
Subject: Comment from Alice Dugar re: Candidates for US EPA Science Advisory Board Panel

From: "adugar" <adugar@ndec.org>
Sent: 12/16/2012 3:48:14 PM
To: hanlon.edward@epa.government
Subject: Comment from Alice Dugar re: Candidates for US EPA Science Advisory Board Panel

Dear Mr. Hanlon,

I am writing to comment on the candidates for the US EPA Science Advisory Panel that will review the technical aspects
of the US EPA's report on the effects of shale drilling on ground water.

Essentially I am endorsing the research of candidates offered by Heather Cantino (see attached); in addition, I urge you to
ensure that radiation experts be placed on the panel... Joseph Ryan is one... since shale can contain significant levels of radioactivity.

Thank you for ensuring qualified persons who have the best of the public's interest be placed on this panel.

Alice Dugar
6800 Chestnut Rd.
Independence OH 44131

adugar@ndec.org
CommentstoUSEPAScienceAdvisoryBoardPanel.docx

December 14, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)

202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

**FROM:** Alice Dugar, 6800 Chestnut Rd., Independence OH 44131
Sent December 16, 2012
I strongly endorse the research of Heather Cantino, 33 Cable Lane, Athens OH 45701 and I urge you to follow the recommendations that she has made in the letter written to Mr. Hanlon below:

Dear Mr. Hanlon:
Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. *Following this list* is a *second list* of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

**Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.**

**Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:**

79. Henry Anderson

80. Boufadel, Michel

81. Susan Brantley

82. Brownawell, Bruce

83. Janice Chambers

84. Dzombak, David A.

85. Edstrom, Robert

86. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

87. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

88. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

89. Robert Howarth

90. Anthony Ingraffea

91. Lyman McDonald statistician and biologist

92. Lisa McKenzie

93. Karlis Muehlenbach

94. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

95. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

96. Jerome Paulson

97. Joseph N. Ryan, U. of Colorado, Boulder

98. Daniel Schlenk

99. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

100. Geoffery Thyne

101. Jeanne Van Briessen

102. Avner Vengosh

103. Perry R. Walker

104. Paul Westerhoff

**The scientific credibility of the EPA is damaged by committees with real or perceived bias**

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

**By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.**

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," *id.* App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be

performed," *id.* § 5(b)(2), and does not contain members with inappropriate special interests. *Id.*§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, *then invitations to address the committee during public meetings are appropriate.* **However, individuals with financial conflicts should not be serving as members of the SAB.**

**The following 67 are all unacceptable candidates** for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial *as evidenced in their publications and public speaking*. Many in this list also do *not* have complete conflict of interest disclosures in their bios.

**Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:**

202. Stephen Almond, MeadWestvaco
203. W. Kenneth Armagost, Andarko Petroleum
204. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re going to find you. It’s something people are fearful of, but it’s not a reality.” And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
205. Stephen Bachu
206. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
207. Baldassare, Fred. Conflict of interest.
208. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
209. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
210. James Bruckner—financial ties to industry
211. Burnett, David

212. Buscheck, Timothy E
213. Gail Charnley – Conflict of interest: consults regularly with industry per her cv.
214. Corrie Clark
215. Cline, Scott Bradley
216. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
217. Collins, James W
218. Corra, John—WY political conflict of interest
219. Eric Daniels (Chevron)
220. Thomas Davis, CO School of Mines
221. Joseph deGeorge (Merck)
222. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
223. Lloyd East (Halliburton)
224. Economides, Michael (consultant; editor-in-chief Energy Tribune
225. Timothy Ellison (Exxon-Mobil)
226. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
227. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

    All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.
228. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
229. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the

federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.

230. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
231. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
232. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
233. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
234. Jester, Stephen, ConocoPhillips
235. George E. King, Apache Corp.
236. Gary Klecka, worked for Dow for most of this career; now an independent consultant
237. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
238. Steven Lewis, Exxon-Mobil for most of his career.
239. Abby Li, most of her career at Monsanto
240. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
241. Keith Wilson Lynch
242. Dean Malouta (most of his career with Shell)
243. Steve Mamerow (Pioneer Natural Resources)
244. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
245. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
246. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
247. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
248. Nygaard, KJ, Exxon Mobil
249. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
250. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
251. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
252. Thomas Parkerton, Exxon Mobil entire career

253. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with **Eagle One Green Solutions, LLC** described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having **"developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).** In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."
254. Richard Phillips, Exxon Mobil since 1988
255. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.
256. Danny Reible
257. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective. (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/) This shows lack of expertise and understanding of existing evidence to the contrary. The candidate also states that "gas as better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing lack of either knowledge or objectivity, since the science increasingly suggests otherwise in terms of lifecycle greenhouse gas emissions.
258. Bert Smith, Chesapeake
259. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
260. Joseph Patrick Smith, Exxon
261. Richard K Smith, Nabbors Production Company
262. Paul Street, Nalco chemical company
263. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
264. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
265. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
266. Sanjay Vittale, Shell Oil
267. Douglas Wyatt, URS Corporation—conflict of interest

268. Victor Ziegler, Occidental Petroleum

Thank you for your attention,
Heather Cantino
33 Cable Lane, Athens, Ohio 45701
heather.cantino@gmail.com
Dec. 14, 2012

From: Bob Fedyski
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/16/2012 07:25 PM
Subject: Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

December 14, 2012

TO: Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

RE: Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

FROM: Robert Fedyski, Athens OH 45701

Dear Mr. Hanlon:
Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. Following this list is a second list of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions,

community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.

Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:

1. Henry Anderson

1

2. Boufadel, Michel

3. Susan Brantley

4. Brownawell, Bruce

5. Janice Chambers

6. Dzombak, David A.

7. Edstrom, Robert

8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

12. Anthony Ingraffea

13. Lyman McDonald statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18. Jerome Paulson

19. Joseph N. Ryan, U. of Colorado, Boulder

20. Daniel Schlenk

2

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

The scientific credibility of the EPA is damaged by committees with real or perceived bias

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.



The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," id. App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," id. § 5(b)(2), and does not contain members with inappropriate special interests. Id.§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, then invitations to address the committee during public meetings are appropriate. However, individuals with financial conflicts should not be serving as members of the SAB.

The following 67 are all unacceptable candidates for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are

threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re going to find you. It’s something people are fearful of, but it’s not a reality.” And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
4. Stephen Bachu

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5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
6. Baldassare, Fred. Conflict of interest.
7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced

water purification device used to remediate wastewater from hydraulic fracturing operations

8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner—financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley – Conflict of interest: consults regularly with industry per her cv.
13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John—WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http:// www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/

item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute no, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

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All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

27. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
28. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
29. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.
35. Gary Klecka, worked for Dow for most of this career; now an independent consultant
36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
37. Steven Lewis, Exxon-Mobil for most of his career.
38. Abby Li, most of her career at Monsanto

39. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
40. Keith Wilson Lynch
41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
45. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.

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47. Nygaard, KJ, Exxon Mobil
48. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
51. Thomas Parkerton, Exxon Mobil entire career
52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with Eagle One Green Solutions, LLC described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having "developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+). In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."
53. Richard Phillips, Exxon Mobil since 1988
54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant,

conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate: epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad Her presentations show bias as suggested by financial conflict of interest.
55. Danny Reible
56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective. (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/) This shows lack of expertise and understanding of existing evidence to the contrary. The candidate also states that "gas as better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing lack of either knowledge or objectivity, since the science increasingly suggests otherwise in terms of lifecycle greenhouse gas emissions.
57. Bert Smith, Chesapeake
58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy:



syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
59. Joseph Patrick Smith, Exxon
60. Richard K Smith, Nabbors Production Company
61. Paul Street, Nalco chemical company
62. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
63. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
64. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
65. Sanjay Vittale, Shell Oil
66. Douglas Wyatt, URS Corporation—conflict of interest
67. Victor Ziegler, Occidental Petroleum

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Bob Fedyski
Rural Action Sustainable Agriculture ***(RASA)***
Local/Institutional Foods Consultant

From: "Gwen B. Fischer"
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 11:33 PM
Subject: Hydraulic Fracturing Science Advisory Board Recommendations

Attached please find a letter written on behalf of the grassroots group, Concerned Citizens Ohio, indicating our concern as citizens that the very best, most independent, expert and unbiased scientists form a panel balanced as to expertise on the varied and complicated issues surrounding the entire process (and impacts) known as deep shale horizontal hydraulic fracture extraction of oil and gas. We are living in the beginning of the shale boom and urgently want research done by an unbiased and expert panel, so that our questions can be answered. We have done an extensive review of the existing information and want this panel to be made up of people who are beyond reproach as to their knowledge, their motives, and their methodology.
Sincerely,

Gwen B. Fischer, Ph.D.
Professor Emerita
Fulbright Scholar
One of the founding members of CCO

Concerned Citizens Ohio
(based in Portage County)

"I am only one, but still I am one. I can not do everything, but still I can do something. And because I can not do everything, I will not refuse to do something I can do." - Helen Keller
"Never doubt that a small group of thoughtful committed citizens can change the world; indeed, it is the only thing that ever has.:" - Margaret Mead

Sent with Sparrow

CCORecommendationsEPAScientificPanel.pdf

December 19,2012
TO: Ed Hanlon
Desi gnated Federal Offi cer
EPA Science Advisory Board Staff Office
202-5(A-2 13 4 (phone/voi ce mail)
202-565-2098 (fax)
202-5&-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (14O0R), 1200 Pennsylvania Ave., N.W.,

Washington, D.C. 20y'6,0 Office location/Courier Address: USEPA Science Advisory Board,
Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 2A00/
RE: Federal Register Notice Yol77 Number 162Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board
FROM: Concerned Citizens, Ohio
Dear Mr. Hanlon:
I have had discussion with many Concerned Citizens in Ohio who have been investigating multiple issues involved in the complicated industrial process known as deep shale horizontal hydro-fracturing (often loosely called "fracking"). We are engaged citizens who expect our government to work for us and are sharing ideas, knowledge and experience with "fracking." Those of us who have more time have done more investigation in these issues, but please understand that we who have had the time and energy to write are representative of literally hundreds of citizens who have at least an educated layperson's understanding of the risks to the
health and safety of our families and our environment. While some of us have chosen to write
separately and some have chosen to write as small groups, we ate none-theless, all very concerned that the work of this important panel not be compromised by conflicts of interest.
I am writing to support the appointment of the following26 names to the Science Advisory Board (SAB) for the USEPA Hydraulic Fracturing study.
Per USEPA guidelines and criteria,I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. Following this list is a second list of
those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria
and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability
to be impartial as evidenced in their publications and public speaking. Many in this list also do
not have complete conflict of interest disclosures in their bios.
The Petroleum industry has a loud eno'rgh 'voice.' It is essential that the citizens who are living with and will live with the health, property, and environmental damage have a voice uncontaminated with any hint of industry bias. Given the record of deep shale drilting and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon foo@rints of this industrial
1
process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.
A number of us have careftrlly reviewed the extensive list of potential candidates for the SAB,looking for candidates whose bios indicate exlrcrtise without evident potential bias. We are citizens who expect scientists appointed by ourgovernment agencies to be chosen with an eye to balance the expertise needed for a thorough investigation of the complex processes and long and short-term impacts of the enormously complex industry that is

loosely called'Tracking". We trust that these appointments will minimize even the perception of bias. To the best of our ability, as informed citizens, we have idenffied the following as meeting those minimal criteria and therefone, we are writing to recommend that the SAB be selected from the following 26 people:

1. Henry Anderson
2. Boufadel, Michel
3. Susan Brantley
4. Brownawell, Bruce
5. Janice Chambers
6. Dzombak, David A.
7. Edstrom, Robert
8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington
9. Dr. Madelon L. Finkel, Professor of Clinical Pubtic Health and Director of the Office of Global Health atthe Weill Medical College,Cornell University
10. Henretig, Fred M., University of Pennsylvania,pediatnc toxicologist
11. Robert Howarth x*x*
12. Anthony Ingraffea ****
13. Lyman McDonald statistician and biologist
14. Lisa McKenzie x**x
15. Karlis Muehlenbach
16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

lT.Dr.Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental EngineeringLaboratory (EEL) atthe University of Puerfo Rico, Mayagtez

18. Jerome Paulson
19. Joseph N. Ryan, LT. of Colorado, Boulder
20. Daniel Schlenk

2l.Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert
H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23.Ieanne Van Briessen x***

?A. Avner Vengosh xxxx

25.Perry R. Walker

26.Paul Westerhoff

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Names designated \4/ith ***x have overall research and expertise, concern for the broader good, and their appointment will lend considerable confidence among the public that the research has been done on behalf of the citizens.

The scientific credibility of the EPA is damaged by committees with real or perceived bias. Given the documented evidence of radium 226 andother radioactivity in produced water and drill cuttings from shale, it is imparative that a radiolog5r expert be included in the panel. I understand that with such a long list of candidates, perhaps it is not possible to add names such as Dr. Marvin Resnikoff, but someone with comparable experience MUST

be on the panel.
I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and
health concerns are dictated by people who have a financial stake in encounaging EPA to do as
little as possible to regulate their products. Rest assured that our citizens' grassroots groups will
be watching.
Whether scientists who are in the employ of petroleum or related companies are actually biased,
may be less important than that the general public perception is that the SAB will fulfill our expectation that our government is working for us.
The mission of the SAB is to provide credible and independent scienti-fic analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset.
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The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least
one non-federal employee, which provides collective advice or recommendations to the agency.
5 U.S.C. App. II, $ 3(2).When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," id. App.II, $ 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," td. $ 5(b)(2),
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We respectfully REJECT the nominations of the following 67 as UNACCEPTABLE candidates, because of potential, clear, or perceived bias:

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with
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22. Lloy d East (Halli burton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. T imothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologistfor industry: http://www journaladvocate.
com/sterling-local news/ci 22022348lleague-women-voters-gets-dirthydrofracking)

26.Derek Elsworth http:/iwww.sciencewa.net.au/topics/industry-a-resources/item/1429-visitingprofessor-
weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and highvolume horizontal hydraulic fracturingl is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you canhazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute no,but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' ...As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"
These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially, as these statements have been contradicted by research.
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32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
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4O. Keith Wilson Lynch
41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry

44.Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from
oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
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Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies. Mr. Oneacre is hesident of Ground Water Solutions. Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectmm include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
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51. Deepak Patil, not a scientist, career has worked for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with Eagle One Green SolutionsrllC described in the Marccllus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having "developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+). Perhaps appropriate for the panel to invite testimony from.
52. Richard Phillips, Exxon Mobil since 1988
53. Laura Plunkett, Integrative Biostrategies, LLC -industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate: epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57 -b2ec-43b8 - abeT - dl99 | c cc9Zad
Her presentations show bias as suggested by financial conflict of interest.
54. Danny Reible
55. James Saiers states he believes intervening rock will/does protect water from contamination
and cites already "befier casing standards" as possibly being adequately protective. (environment.yale.edu/newsiarticle/yale-panel-to-debate-hydraulic-fracturing/) This shows lack of expertise and understanding of existing evidence to the contrary - The candidate also states that "gas as better than coal" lubbockonline.com/national-news/2O12-09-22lglobalprotests-
planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing lack of either

knowledge or objectivity, since the science increasingly suggests otherwise in terms of lifecycle greenhouse gas emissions.
56. Bert Smith, Chesapeake
57.Donald Siegel discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy:
syracuse.com/newsiindex.ssf/2010/05/some scientists sat hydrofrack.html), also disclosing bias, sitrce there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives). Again, perhaps might be appropriate for the SAB to invite in for testimony.
58. Joseph Patrick Smith, Exxon
59. Richard K Smith, Nabbors Production Company
6O. Paul Street, Nalco chemical company
61. Talib Syed - not a scientist. hoduction engineer, whole career has been in industry.
62. James John Tintera - not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
63. Rock Vitale, Environmental Standards,Inc.-not a scientist, works entirely for industry "managing liability". No advanced degree.
64. Sanjay Vittale, Shell Oil
65. Douglas Wyatt, URS Corporation-conflict of interest
66. Victor Ziegler, Occidental Petroleum
Thank you for your attention.

Gwen B. Fischer, Ph.D.
Professor Emerita

Also signed by:
Carol Redmond
RunDewell
Sum Subbi
Andrea Suffoni
Colleen Zilswsh

This letter of comment was written on behalf of Concerned Citizenl Ohio, a grassroots group of
citizens, based largely in Portage County and networked with similar groups across Ohio. A core group of members of CCO have been studying, for several years, all aspects of "fracking"
(technology, financial, as well as the sociological, biological, industrial, endocrine impacts on
the communities where the shale as been most productive). We have about 50 members in Portage County who are fairly active, and between 200-300 "associates" who are concerned enough to be educating themselves, to request information, attend meetings as they are able and

to hope that our government is working for us.
Given the impending holidays when we first learned of the public comment period about SAB,
we have been unable to mobilize all our members, but expect you will hear from some who are
writing as individuals. We have sent this information around to all our different email lists and
we will be sure to eagerly follow the very important work of the panel.

From: Stanley Fischer
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 04:50 PM
Subject: Comments on SAB panel

Dear Mr. Hanlon,

Please find attached my comments on selection of members to SAB panel.

Stanley L. Fischer Comments On SAB Panel Short List.doc

December 18, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

**FROM:** Stanley L. Fischer, Hiram, OH 44234

Dear Mr. Hanlon:
Please accept and convey my comments on the nomination of candidates for inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. *Following this list* is a *second list* of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

**Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.**

**Please consider the following 26 people, who seem to possess clear scientific objectivity and appropriate expertise:**

1. Henry Anderson

2. Boufadel, Michel

3. Susan Brantley

4. Brownawell, Bruce

5. Janice Chambers

6. Dzombak, David A.

7. Edstrom, Robert

8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

12. Anthony Ingraffea

13. Lyman McDonald statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18. Jerome Paulson

19. Joseph N. Ryan, U. of Colorado, Boulder

20. Daniel Schlenk

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

**Since the scientific credibility of the EPA is damaged by committees with real or perceived bias, please do not consider the remaining names from your long list, whose experience and credentials suggest less than ideal disinterest and objectivity.**

Given the links of deep shale drilling and high pressure horizontal hydraulic fracturing to water contamination, air pollution, increased emissions, various illnesses, and community disruption, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest. Since industry-supported scientists and scientists directly employed by the gas industry, may tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption, it is in my view, imperative to determine that appointees are free from industry influences

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a

strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect the objectivity, integrity, independence, and competence required to carry out its important duty.

Thank you for your work and for your kind attention,
Stanley L. Fischer
Hiram, OH 44234

From: Sherry Fleming
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 04:53 PM
Subject: public comments on announced list for Hydraulic Fracturing Science Advisory Board panel

Mr Hanlon:

Attached are my comments on the announced list for the hydraulic fracturing SAB panel.

Sherry Fleming
Bryan, OH 43506

Comments On SAB Panel.doc

December 19, 2012

Ed Hanlon
Designated Federal Officer
USEPA Science Advisory Board Staff Office
hanlon.edward@epa.gov

**RE:** public comment period on announced list for Hydraulic Fracturing Science Advisory Board panel

Mr. Hanlon:

I am submitting the following 28 names for consideration to the Science Advisory Board panel for the USEPA Hydraulic Fracturing study. These nominations provide scientific expertise, knowledge, experience and the ability to be impartial.

105. Henry Anderson

106. Michel Boufadel

107. Susan Brantley

108. Bruce Brownawell

109. Janice Chambers

110. David A. Dzombak

111. Robert Edstrom

112. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

113. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

114. Fred M. Henretig, University of Pennsylvania, pediatric toxicologist

115. Robert Howarth

116. Anthony Ingraffea

117. Lyman McDonald, statistician and biologist

118. Lisa McKenzie

119. Karlis Muehlenbach

120. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

121. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

122. Jerome Paulson

123. Joseph N. Ryan, University of Colorado, Boulder

124. Daniel Schlenk

125. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

126. Geoffery Thyne

127. Jeanne Van Briessen

128. Avner Vengosh

129. Perry R. Walker

130. Paul Westerhoff

27. Allen Shapiro

28. JP Nicot

Also, I would request that additional radiation experts be included on this panel, given that shale can contain high levels of radioactivity.

I am requesting that the following 67 names **not be considered** for inclusion on the Science Advisory Board for the USEPA Hydraulic Fracturing study due to direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

269. Stephen Almond, MeadWestvaco
270. W. Kenneth Armagost, Andarko Petroleum
271. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re going to find you. It’s something people are fearful of, but it’s not a reality.” And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
272. Stephen Bachu
273. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
274. Baldassare, Fred. Conflict of interest.

275. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
276. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
277. James Bruckner—financial ties to industry
278. Burnett, David
279. Buscheck, Timothy E
280. Gail Charnley – Conflict of interest: consults regularly with industry per her cv.
281. Corrie Clark
282. Cline, Scott Bradley
283. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
284. Collins, James W
285. Corra, John—WY political conflict of interest
286. Eric Daniels (Chevron)
287. Thomas Davis, CO School of Mines
288. Joseph deGeorge (Merck)
289. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
290. Lloyd East (Halliburton)
291. Economides, Michael (consultant; editor-in-chief Energy Tribune
292. Timothy Ellison (Exxon-Mobil)
293. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
294. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"
All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

295. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
296. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
297. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
298. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
299. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
300. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
301. Jester, Stephen, ConocoPhillips
302. George E. King, Apache Corp.
303. Gary Klecka, worked for Dow for most of this career; now an independent consultant
304. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
305. Steven Lewis, Exxon-Mobil for most of his career.
306. Abby Li, most of her career at Monsanto
307. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
308. Keith Wilson Lynch
309. Dean Malouta (most of his career with Shell)
310. Steve Mamerow (Pioneer Natural Resources)
311. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
312. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
313. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
314. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
315. Nygaard, KJ, Exxon Mobil
316. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
317. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.

318. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
319. Thomas Parkerton, Exxon Mobil entire career
320. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with **Eagle One Green Solutions, LLC** described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having **"developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).** In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."
321. Richard Phillips, Exxon Mobil since 1988
322. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.
323. Danny Reible
324. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective. (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/) This shows lack of expertise and understanding of existing evidence to the contrary. The candidate also states that "gas as better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing lack of either knowledge or objectivity, since the science increasingly suggests otherwise in terms of lifecycle greenhouse gas emissions.
325. Bert Smith, Chesapeake
326. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
327. Joseph Patrick Smith, Exxon
328. Richard K Smith, Nabbors Production Company
329. Paul Street, Nalco chemical company
330. Talib Syed – not a scientist. Production engineer, whole career has been in industry.

331. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
332. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
333. Sanjay Vittale, Shell Oil
334. Douglas Wyatt, URS Corporation—conflict of interest
335. Victor Ziegler, Occidental Petroleum

I respectfully remind USEPA of its professional and legal duty to select candidates who adequately represent the protection of public health and the environment, consistent with the mission of EPA. It is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest. The scientific credibility of the EPA is damaged by committees with real or perceived bias**.**

Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. The Science Advisory Board should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset.

Thank you for your consideration,
Sherry Fleming
Bryan, OH 43506

From: "Larry Frankel"
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/17/2012 01:36 PM
Subject: USEPA Hydraulic Fracturing Study

December 17, 2012

TO: Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office

Dear Mr. Hanlon:

I am writing you as a member of the medical community and as a concerned citizen that cares about the risk of hydraulic fracturing. I am asking you to support the appointment of the following 27 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 27 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. Following this list is a second list of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.

Please consider appointing your committee from the following 27 people, those who clearly show evidence of scientific objectivity and appropriate expertise:

1. Henry Anderson

2. Boufadel, Michel

3. Susan Brantley

4. Brownawell, Bruce

5. Janice Chambers

6. Dzombak, David A.

7. Edstrom, Robert

8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

12. Anthony Ingraffea

13. Lyman McDonald statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18. Jerome Paulson

19. Joseph N. Ryan, U. of Colorado, Boulder

20. Daniel Schlenk

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

27. Mr. James Northrup

The scientific credibility of the EPA is damaged by committees with real or perceived bias

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," id. App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," id. § 5(b)(2), and does not contain members with inappropriate special interests. Id.§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, then invitations to address the committee during public meetings are appropriate. However, individuals with financial conflicts should not be serving as members of the SAB.

The following 67 are all unacceptable candidates for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be

impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

**I feel the following you should REJECT the nominations of the following 67 UNACCEPTABLE candidates:**

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re going to find you. It’s something people are fearful of, but it’s not a reality.” And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
4. Stephen Bachu
5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
6. Baldassare, Fred. Conflict of interest.
7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner—financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley – Conflict of interest: consults regularly with industry per her cv.
13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John—WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune

24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometers away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute no, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.
27. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
28. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
29. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.
35. Gary Klecka, worked for Dow for most of this career; now an independent consultant
36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
37. Steven Lewis, Exxon-Mobil for most of his career.
38. Abby Li, most of her career at Monsanto

39. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
40. Keith Wilson Lynch
41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
45. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
47. Nygaard, KJ, Exxon Mobil
48. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
51. Thomas Parkerton, Exxon Mobil entire career
52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with Eagle One Green Solutions, LLC described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having "developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+). In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flow back waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."
53. Richard Phillips, Exxon Mobil since 1988
54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate: epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.
55. Danny Reible

56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already “better casing standards” as possibly being adequately protective. (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/) This shows lack of expertise and understanding of existing evidence to the contrary. The candidate also states that “gas as better than coal” lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing lack of either knowledge or objectivity, since the science increasingly suggests otherwise in terms of lifecycle greenhouse gas emissions.
57. Bert Smith, Chesapeake
58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
59. Joseph Patrick Smith, Exxon
60. Richard K Smith, Nabbors Production Company
61. Paul Street, Nalco chemical company
62. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
63. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
64. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry “managing liability”. No advanced degree.
65. Sanjay Vittale, Shell Oil
66. Douglas Wyatt, URS Corporation—conflict of interest
67. Victor Ziegler, Occidental Petroleum

Thank you for your attention,
Lawrence Scott Frankel DMD MS
Gates Mills Ohio 44040

RE: list of candidates posted last night for EPA SAB HF advisory panel
Lee Fuller
to:
Edward Hanlon
12/18/2012 05:20 PM
Hide Details
From: Lee Fuller <lfuller@ipaa.org>

To: Edward Hanlon/DC/USEPA/US@EPA

History: This message has been replied to.

1 Attachment

IPAA EPA HF Study Panelist Selection Letter 12-18-2012.pdf

Mr. Hanlon,

Please find attached IPAA's recommendations regarding candidates for the Science Advisory Board Hydraulic Fracturing Advisory Panel. As I understand the process, it should be submitted to you. If that is not correct, please let me know the appropriate submission process.

Thank you,

Lee Fuller

**From:** Hanlon.Edward@epamail.epa.gov [mailto:Hanlon.Edward@epamail.epa.gov]
**Sent:** Wednesday, November 28, 2012 7:36 AM
**To:** Lee Fuller
**Subject:** list of candidates posted last night for EPA SAB HF advisory panel

hello Mr. Fuller,

FYI, the list of candidates for EPA SAB's HF advisory panel was posted last night on our SAB HF Advisory Panel website, at http://yosemite.epa.gov/sab/sabproduct.nsf/WebProjectsRequestsforCommentsBOARD/B436304BA804E3F885257A5B00521B3B?OpenDocument&TableRow=2.1#2.

We request public comments by December 19th.

Here's a PDF version of the document....Thanks, Ed H

*(See attached file: List of Candidates-Hydraulic Fracturing Advisory Panel-11-27-12-Final.pdf)*

**********

Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov

Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460

Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA ▪ 1201 15TH STREET, NW ▪ SUITE 300 ▪ WASHINGTON, DC 20005 202-857-4722 ▪ FAX 202-857-4799 ▪ WWW.IPAA.ORG

December 18, 2012
Mr. Edward Hanlon
Designated Federal Officer
Science Advisory Board Staff Office

Environmental Protection Agency
Washington, DC
Re: Candidates for the EPA Science Advisory Board Hydraulic Fracturing Advisory Panel
Dear Mr. Hanlon,

These recommendations are submitted by the Independent Petroleum Association of America (IPAA). IPAA represents the thousands of independent producers and supporting industries that develop 95 percent of US oil and natural gas wells and produce over 50 percent of US oil and more than 80 percent of US natural gas.

IPAA believes that the selection of a Science Advisory Board (SAB) Hydraulic Fracturing Advisory Panel can be an important aspect of improving the Environmental Protection Agency (EPA) hydraulic fracturing study. However, to achieve a useful advisory panel, it is essential to appoint a balanced membership. The SAB panel that developed the hydraulic fracturing study design failed to meet this test and created a product that has resulted in confusion over the scope of the study, ongoing questions about the quality of the testing and serious doubts about its research targeting. Recently, EPA has impaneled as series of roundtables to assess technical issues associated with hydraulic fracturing and the study. EPA wisely chose to create a balance in these roundtables, assuring that expertise from the industry that produces oil and natural gas and fractures wells is present.

IPAA believes that the SAB Hydraulic Fracturing Advisory Panel needs to include the expertise of industry participants. Numerous nominees for the panel have been included in list of candidates. IPAA believes that one-third of the panel should be comprised of candidates coming from industry or with extensive industrial experience. This balance would greatly improve the pragmatism of the panel as it reviews study results and advises the Administrator.

Conversely, IPAA believes that EPA must exclude the candidates who have shown by their public actions an inherent bias against the use of hydraulic fracturing and the development of America's oil and natural gas resources. Attached to this submission is a list of candidates that IPAA believes should be excluded from the panel.

Sincerely,

Lee O. Fuller
Vice President, Government Relations
Attachment

ATTACHMENT

Following are a number of individuals listed as possible candidates for the EPA SAB Hydraulic Fracturing Advisory Panel that IPAA believes should be excluded based on their public opposition to hydraulic fracturing or to the development of American oil and natural gas.

MICHEL BOUFADEL, Ph.D.: Dr. Boufadel has previously suggested that the EPA's hydraulic fracturing study, which already has an expansive scope, "does not go far enough." Boufadel has also been described as an individual on a "campaign" to alert lawmakers in Philadelphia about the "dangers of shale drilling." Under his leadership at Temple University, the Department of Civil and Environmental Engineering has hosted organizations and individuals (Page 2: Earthworks, Clean Air Council) that actively lobby for bans on natural gas development. One of his guests was Calvin Tillman, who is engaged in an advocacy tour against natural gas. Boufadel also serves as an advisor to the group "Physicians, Scientists and Engineers for Healthy Energy" (PSE), which is funded by the Park Foundation, an organization that wants to ban hydraulic fracturing. PSE misleadingly labels itself as a disinterested, science-based organization, but media accounts have noted "language on the group's website suggests an anti-development viewpoint."

ROBERT HOWARTH, Ph.D.: Dr. Howarth is the lead author of a widely discredited paper on lifecycle methane emissions from oil and gas development. The professor's research has been criticized by agencies of the federal government (DOE/NETL) and multiple peer-reviewed papers, including a recent Massachusetts Institute of Technology (MIT) study coauthored by a lead author of the "IPCC Fifth Assessment Report." The MIT study noted that Howarth used "unreasonable" assumptions on methane leakage rates to arrive at his conclusions. Former PA DEP commissioner John Hanger noted the Howarth/Ingraffea study was promoted using funds from the Park Foundation, an organization that opposes the oil and gas industry, and is open about financing research that advances this cause. Earlier this year, Howarth was featured in a widely distributed video for a 501 (C) (3) organization where he stated natural gas operators surreptitiously "vent" large volumes of methane because they're fearful that alternate means of maintaining safe pressure, such as flaring, would "disturb people."

ANTHONY INGRAFFEA, Ph.D.: Dr. Ingraffea is a co-author of a widely discredited study on lifecycle methane emissions from oil and gas development. The professor's research and its findings have been criticized by agencies of the federal government (DOE/NETL) and multiple peer-reviewed papers, including a recent Massachusetts Institute of Technology (MIT) study coauthored by a lead author of the "IPCC Fifth Assessment Report" who noted the study used "unreasonable" assumptions on methane leakage rates to arrive at its conclusions. Former PA DEP Commissioner John Hanger noted the Howarth/Ingraffea study was promoted using funds from the Park Foundation, an organization that opposes the oil and gas industry and is open about financing research that advances this cause. Dr. Ingraffea has shown an increasing willingness to make statements refuted by experience and independent scientific review. During a June 2012 congressional briefing, Ingraffea claimed "hundreds if not thousands of cases of water contamination, anywhere shale gas development occurs." Ingraffea has also stated the natural gas industry is producing "pseudoscience" in an attempt to "kill science." Ingraffea helped create, and serves on the board of directors for, the group "Physicians, Scientists and Engineers for Healthy Energy" (PSE), which is funded by the Park Foundation, an organization that wants to ban hydraulic fracturing. PSE misleadingly labels itself as a disinterested, science-

based organization, but media accounts have noted “language on the group's website suggests an anti-development viewpoint.” In addition, when questioned if universities should foster additional research on hydraulic fracturing Dr. Ingraffea stated; “…excuse me, I thought the industry said there are no problems, so why do we need solutions to problems that don’t exist. Why do we need more research? I think the research has already been done and the research has spoken.”

LISA MCKENZIE, Ph.D.: Dr. McKensie is a co-author of a controversial health impact study of natural gas operations which determined that natural gas development may cause future health impacts for those living within a defined proximity to natural gas wells. The study was a hypothetical modeling exercise that did not provide any evidence of actual health problems. It received strong criticism from the Colorado Department of Health, was disavowed by public health officials in Garfield County and relied on flawed assumptions that exaggerated emissions associated with drilling and completing new gas wells. The CSPH researchers claimed to have been working closely with Garfield County officials, but the county’s chief environmental health official, Jim Rada, told the press he had “no knowledge” of what the researchers were even studying.

KARLIS MUEHLENBACHS, Ph.D.: Dr. Muehlenbachs is a professor at the University of Alberta. Last November, he made news in Canada for delivering a presentation that attempted to “prove” groundwater contamination from shale wells in Quebec. The press ran with his findings, with one headline in La Presse reading “First Case of Water Contamination from Fracking.” Muehlenbachs, however, assumed his water sample was groundwater, when in fact it was taken from a cellar. Subsequent news reporting corrected his error, but he initially refused to concede the error. On slide 18 of the above mentioned presentation, Muehlenbachs has a chart that describes “gas in water,” suggesting methane has seeped into groundwater. But in a quiet update – and admission of his earlier error – Muehlenbachs has a new version of the presentation that admits, “Analysis are of gas from standing water in the well cellar. No data related to ground water at this well.” Later in that updated presentation he reaffirms that the sample was “Not from the Aquifer.” Muehlenbachs has not come out and apologized for the damage he caused to the industry’s reputation for his oversight, even though a simple comparison of the “same” presentation shows significant changes. In December 2011, Muehlenbachs asserted: “The biggest problem is that half or more the [shale] wells drilled leak due to improper cement jobs or industry is not following best practices.” This is based on a nearly decade-old pamphlet from Schlumberger, which examined “sustained casing pressure” (SCP) – in offshore wells in the Gulf of Mexico. SCP does not indicate a leak, but rather merely the presence of pressure, as the name implies, and in any event the statistic used has no bearing on the development of onshore shale wells.

DEBORAH SWACKHAMER, Ph.D.: During a presentation to the Institute of Medicine of the National Academies, the only study Dr. Swackhamer cited was a paper by Theo Colborn and the organization she runs, The Endocrine Disruption Exchange, or TEDX. This is disturbing because TEDX is openly hostile to the oil and gas industry and accepts funding from other groups that oppose hydraulic fracturing. Based on the conclusions of the TEDX paper, Swackhamer said during her presentation that fracturing fluids can cause “tremendous health problems” and pose a “grave concern.” She also described the current disclosure framework for hydraulic fracturing as a “black box.”

GEOFFREY THYNE, Ph.D.: Dr. Thyne has claimed that he was forced out of research positions at the Colorado School of Mines and the University of Wyoming due to pressure from the oil and

gas industry. He has also collaborated with Earthworks and the Checks and Balances Project, which are groups that oppose the oil and gas industry.

JEANNE VANBRIESEN, Ph.D.: Dr. VanBriesen co-wrote a paper with the Natural Resources Defense Council titled “In Fracking’s Wake: New Rules are Needed to Protect Our Health and Environment from Contaminated Wastewater.” The report calls for a major increase in federal regulation of the oil and gas industry, including this recommendation: “Congress should eliminate the Safe Drinking Water Act exemption for hydraulic fracturing to ensure that injection of fracturing fluid will not endanger drinking water sources.”

AVNER VENGOSH, Ph.D.: Dr. Vengosh is the co-author of two controversial papers which have insinuated that hydraulic fracturing is responsible for methane contamination of water wells, and that hydraulic fracturing fluids could migrate upwards through thousands of feet and billions of tons of rock into drinking water aquifers. Vengosh’s work at Duke University has been funded by the Park Foundation, which opposes the oil and gas industry and is open about financing research that advances this cause. Vengosh himself has been outspoken about hydraulic fracturing in the news media. For example, he published an op-ed in the Philadelphia Inquirer – titled “DEP: Protecting water or gas?” – that was critical of the Pennsylvania Department of Environmental Protection. And in a SmartPlanet news story titled “Scientist: Gas industry is withholding hydro-fracking contamination data,” Vengosh provided the following quote: “Given that the regulations are so different between the states and that our study reveals that our understanding on the environmental impacts is limited, yes EPA should be actively involved in regulating hydrofracking operations and practices.”

PERRY WALKER, Ph.D.: One of Dr. Walker’s funders is the Wyoming Outdoor Council, which advocates for increasing the regulatory burden on the oil and gas industry. Specifically, the WOC wants federal law changed to regulate “all injections of hydraulic fracturing fluids under the Safe Drinking Water Act.” Dan Heilig, the former head of the WOC, has described Walker as “the ideal citizen activist.”

MARK WILLIAMS, Ph.D.: Dr. Williams has given a presentation called “Save Our Snow: Climate Change, Fracking, Ski Areas, and Water Security in Colorado and the West” a number of times at venues across Colorado. According to a summary of the presentation, Williams classifies hydraulic fracturing as a threat to Colorado’s water security. This is completely at odds with the findings of three state agencies, which recently concluded hydraulic fracturing accounts for less than 0.1 percent of water use in Colorado.

LAUREN ZEISE, Ph.D.: In addition to her role at the California Environmental Protection Agency, Dr. Zeise has also published papers in a number of journals. She was the co-author of a paper which calls for “rethinking current approaches to reducing environmental risks” by “changing the burden of proof so that chemicals are not presumed safe in the absence of scientific data.”

From: Vicki Garrett
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/18/2012 10:13 AM
Subject: Comments on Science Advisory Board on Hydraulic Fracturing candidates
Sent by: vlgarrett123@gmail.com

Dear Mr. Hanlon:

Attached and pasted below are my comments on possible candidates for the Science Advisory Board on Hydraulic Fracturing.

Thank you for considering comments, and happy holidays!

Vicki

December 18, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
hanlon.edward@epa.gov

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:

Following are my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

**Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:**

- Henry Anderson

- Boufadel, Michel
- Susan Brantley
- Brownawell, Bruce
- Janice Chambers
- Dzombak, David A.
- Edstrom, Robert
- Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington
- Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University
- Henretig, Fred M., University of Pennsylvania, pediatric toxicologist
- Robert Howarth
- Anthony Ingraffea
- Lyman McDonald statistician and biologist
- Lisa McKenzie
- Karlis Muehlenbach
- Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination
- Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez
- Jerome Paulson
- Joseph N. Ryan, U. of Colorado, Boulder
- Daniel Schlenk
- Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.
- Geoffery Thyne
- Jeanne Van Briessen
- Avner Vengosh
- Perry R. Walker
- Paul Westerhoff

**Please REJECT the nominations of the following candidates due to conflict of interest, lack of appropriate educational background, or bias:**

- Stephen Almond, MeadWestvaco
- W. Kenneth Armagost, Andarko Petroleum
- Dan Arthur: ALL Consulting.
- Stephen Bachu
- E. Scott Bair

- Baldassare, Fred.
- Terence Barry, Aquamost
- Bratton, Thomas R., Schlumberger Technology
- James Bruckner
- Burnett, David
- Buscheck, Timothy E
- Gail Charnley
- Corrie Clark
- Cline, Scott Bradley
- Nancy Pees Coleman
- Collins, James W
- Corra, John
- Eric Daniels
- Thomas Davis, CO School of Mines
- Joseph deGeorge
- Dunn-Norman, Shari
- Lloyd East
- Economides, Michael
- Timothy Ellison
- Stuart Ellsworth
- Derek Elsworth
- James Erb
- Fassett, Gordon, HDR Engineering, Inc. – not a scientist
- Fontana, John V., Vista GeoScience LLC – not a scientist
- Hayes, Thomas D., Gas Technology Institute E&P Center
- Hufford, Walter R., Talisman Energy USA
- Ron Hyden, Director of Technology for Halliburton's Production Enhancement
- Jester, Stephen, ConocoPhillips
- George E. King, Apache Corp.
- Gary Klecka
- Philip Leber
- Steven Lewis
- Abby Li
- Sean Lieske,
- Keith Wilson Lynch
- Dean Malouta
- Steve Mamerow
- Carl T. Montgomery, NSI Technologies
- Daniel Moos, Baker Hughes
- Michael Nickolaus – not a scientist
- Jean-Philippe Nicot
- Nygaard, KJ, Exxon Mobil
- Jon Olson
- John Oneacre, Ground Water Solutions
- Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS)
- Thomas Parkerton, Exxon Mobil
- Deepak Patil – not a scientist

- Richard Phillips, Exxon Mobil
- Laura Plunkett, Integrative Biostrategies, LLC
- Danny Reible
- James Saiers
- Bert Smith, Chesapeake
- Donald Siegel
- Joseph Patrick Smith, Exxon
- Richard K Smith, Nabbors Production Company
- Paul Street, Nalco
- Talib Syed – not a scientist
- James John Tintera – not a scientist
- Rock Vitale, Environmental Standards, Inc.—not a scientist
- Sanjay Vittale, Shell Oil
- Douglas Wyatt, URS Corporation
- Victor Ziegler, Occidental Petroleum

Thank you for the opportunity to comment.

Vicki Garrett

Columbus, OH 43207

Comments_Re_SAB_Nominees-12-18-12.docx

From: cusi Gibbons-Ballew
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 02:47 PM
Subject: SAB nominees

RE: Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:
Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. Following this list is a second list of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.

Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:

1. Henry Anderson

2. Boufadel, Michel

3. Susan Brantley

4. Brownawell, Bruce

5. Janice Chambers

6. Dzombak, David A.

7. Edstrom, Robert

8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

12. Anthony Ingraffea

13. Lyman McDonald statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18. Jerome Paulson

19. Joseph N. Ryan, U. of Colorado, Boulder

20. Daniel Schlenk

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

The scientific credibility of the EPA is damaged by committees with real or perceived bias

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," id. App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," id. § 5(b)(2), and does not contain members with inappropriate special interests. Id.§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, then invitations to address the committee during public meetings are

appropriate. However, individuals with financial conflicts should not be serving as members of the SAB.

The following 67 are all unacceptable candidates for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re going to find you. It’s something people are fearful of, but it’s not a reality.” And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
4. Stephen Bachu
5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
6. Baldassare, Fred. Conflict of interest.
7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner—financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: “In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and a colleague wrote a letter to the technical journal Environmental Health Perspectives about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague disputed having a conflict of interest.”

13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John—WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute no, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

27. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
28. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.

29. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.
35. Gary Klecka, worked for Dow for most of this career; now an independent consultant
36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
37. Steven Lewis, Exxon-Mobil for most of his career.
38. Abby Li, most of her career at Monsanto
39. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
40. Keith Wilson Lynch
41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
45. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
47. Nygaard, KJ, Exxon Mobil
48. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
51. Thomas Parkerton, Exxon Mobil entire career
52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with Eagle One Green Solutions, LLC described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having "developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+). In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant,

disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."

53. Richard Phillips, Exxon Mobil since 1988
54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate: epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.
55. Danny Reible
56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/), revealing his lack of expertise and understanding of the existing substantive evidence to the contrary. The candidate also states that "gas is better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing his lack of either knowledge or objectivity, since the science on lifecycle greenhouse gas emissions increasingly suggests otherwise.
57. Bert Smith, Chesapeake
58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
59. Joseph Patrick Smith, Exxon
60. Richard K Smith, Nabbors Production Company
61. Paul Street, Nalco chemical company
62. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
63. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
64. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
65. Sanjay Vittale, Shell Oil
66. Douglas Wyatt, URS Corporation—conflict of interest
67. Victor Ziegler, Occidental Petroleum

Thank you for your attention,
Peter GIbbons-Ballew
Millfield, oh
Dec. 19, 2012

From: Mary Sue Gmeiner
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 01:12 PM
Subject: Hydraulic Fracturing Scientific Advisory Board

Please find the attached letter detailing my concerns and comments about candidates for this SAB.

Thank you for your consideration,
Mary Sue Gmeiner

If you give me a fish, you have fed me for a day. If you teach me to fish, you have fed me until the river is polluted and the shoreline seized for development.
But if you teach me to organize, then, no matter the challenge, I can join my community and we can make our own solution. ~ from Creating a Culture of Peace

Comments On SAB Panel Short List.doc

December 19, 2012

**TO:** Edward Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
hanlon.edward@epa.gov

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

**FROM:** Mary Sue Gmeiner, 811 Bellows Dr., New Carlisle, OH 45344

Dear Mr. Hanlon:
I am very concerned about the need for strong scientific data, open minds, and lack of conflicts of interest as criteria to be used in consideration of the Scientific Advisory Board on hydraulic fracturing. I wish to support the nomination of the following five candidates for the Science Advisory Board on Hydraulic Fracturing.

1. Avner Vengosh
2. Jeane VanBriesen

3. Allen Shapiro
4. Lisa Mckenzie
5. Anthony Ingraffea

Per USEPA guidelines and criteria, I support these candidates based on their scientific expertise, knowledge, experience and ability to be impartial. Additionally, there are 22 names of other well qualified persons. Please consider these candidates:

1. Henry Anderson
2. Boufadel, Michel
3. Susan Brantley
4. Brownawell, Bruce
5. Janice Chambers
6. Dzombak, David A.
7. Edstrom, Robert
8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington
9. Dr. Madelon L. Finkel, Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University
10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist
11. Robert Howarth
12. Lyman McDonald statistician and biologist
13. Karlis Muehlenbach
14. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination
15. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez
16. Jerome Paulson
17. Joseph N. Ryan, U. of Colorado, Boulder
18. Daniel Schlenk
19. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.
20. Geoffery Thyne
21. Perry R. Walker
22. Paul Westerhoff

I also have a list of candidates who should be rejected, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:

336. Stephen Almond, MeadWestvaco
337. W. Kenneth Armagost, Andarko Petroleum
338. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, "These (state regulatory agencies) have field inspectors, rules and regulations, if you're a bad actor, not doing a good job, they're going to find you. It's something people are fearful of, but it's not a reality." And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
339. Stephen Bachu
340. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
341. Baldassare, Fred. Conflict of interest.
342. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
343. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
344. James Bruckner—financial ties to industry
345. Burnett, David
346. Buscheck, Timothy E
347. Gail Charnley – Conflict of interest: consults regularly with industry per her cv.
348. Corrie Clark
349. Cline, Scott Bradley
350. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
351. Collins, James W
352. Corra, John—WY political conflict of interest
353. Eric Daniels (Chevron)
354. Thomas Davis, CO School of Mines
355. Joseph deGeorge (Merck)
356. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
357. Lloyd East (Halliburton)
358. Economides, Michael (consultant; editor-in-chief Energy Tribune
359. Timothy Ellison (Exxon-Mobil)

360. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)

361. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

362. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012 January 18/Presentations and Handouts/Erb Written Comments before the Committee.pdf)

363. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.

364. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."

365. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry

366. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"

367. Ron Hyden, Director of Technology for Halliburton's Production Enhancement

368. Jester, Stephen, ConocoPhillips

369. George E. King, Apache Corp.

370. Gary Klecka, worked for Dow for most of this career; now an independent consultant

371. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."

372. Steven Lewis, Exxon-Mobil for most of his career.

373. Abby Li, most of her career at Monsanto

374. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
375. Keith Wilson Lynch
376. Dean Malouta (most of his career with Shell)
377. Steve Mamerow (Pioneer Natural Resources)
378. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
379. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting.
380. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
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383. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
384. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
385. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
386. Thomas Parkerton, Exxon Mobil entire career
387. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with **Eagle One Green Solutions, LLC** described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having **"developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).** In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."
388. Richard Phillips, Exxon Mobil since 1988
389. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.

390. Danny Reible
391. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective. (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/) This shows lack of expertise and understanding of existing evidence to the contrary.
392. Bert Smith, Chesapeake
393. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
394. Joseph Patrick Smith, Exxon
395. Richard K Smith, Nabbors Production Company
396. Paul Street, Nalco chemical company
397. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
398. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
399. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
400. Sanjay Vittale, Shell Oil
401. Douglas Wyatt, URS Corporation—conflict of interest
402. Victor Ziegler, Occidental Petroleum

I am sure you understand that candidates with a financial interest in the outcome of the affairs of the committee should be excluded, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues, without bias.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, *then invitations to address the committee during public meetings are appropriate.* **However, individuals with financial conflicts should not be serving as members of the SAB.**

Thank you for your attention,
Mary Sue Gmeiner
New Carlisle, OH 45344

From: Roxanne Groff
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/17/2012 10:59 AM
Subject: USEPA SAB

December 17, 2013

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:

I spoke with you last Wednesday concerning appointments to the ad hoc panel to the SAB. Of grave concern to me is the issue you mentioned about congressional members asking for more industry appointments. I have been involved with people around the state of Ohio whose concerns for our health and safety must, I repeat MUST hold more weight than the idea that congress might inflence the USEPA with phone calls to you about the number of jobs they will get credit for!

The emotional burden of the effects of fracking and injection wells that is weighing on our citizens is causing a serious long term problem. I am one of many that is asking for the USEPA to bring the research and analysis of the experts that are identified in this letter to be involved in the USEPA study.

Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. Following this list is a second list of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and

carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.

Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:

1. Henry Anderson

2. Boufadel, Michel

3. Susan Brantley

4. Brownawell, Bruce

5. Janice Chambers

6. Dzombak, David A.

7. Edstrom, Robert

8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

12. Anthony Ingraffea

13. Lyman McDonald statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18. Jerome Paulson

19. Joseph N. Ryan, U. of Colorado, Boulder

20. Daniel Schlenk

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," id. App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," id. § 5(b)(2), and does not contain members with inappropriate special interests. Id.§ 5(b)(3).

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The following 67 are all unacceptable candidates for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re going to find you. It’s something people are fearful of, but it’s not a reality.” And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
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5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
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7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner—financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: “In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and a colleague wrote a letter to the technical journal Environmental Health Perspectives about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague disputed having a

conflict of interest."
13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John—WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute no, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.
27. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012 January 18/Presentations and Handouts/Erb -- Written Comments before the the Committee.pdf)
28. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.

29. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.
35. Gary Klecka, worked for Dow for most of this career; now an independent consultant
36. Philip Leber "For 20 years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
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44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
45. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
47. Nygaard, KJ, Exxon Mobil
48. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
51. Thomas Parkerton, Exxon Mobil entire career
52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with Eagle One Green Solutions, LLC described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having "developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6 ). In a single dose, Fe6 can simultaneously perform as an oxidant, coagulant, anti-foulant,

disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6 has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6 can be wholly recycled and reused for well site-completion operations."

53. Richard Phillips, Exxon Mobil since 1988
54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate: epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.
55. Danny Reible
56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/), revealing his lack of expertise and understanding of the existing substantive evidence to the contrary. The candidate also states that "gas is better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing his lack of either knowledge or objectivity, since the science on lifecycle greenhouse gas emissions increasingly suggests otherwise.
57. Bert Smith, Chesapeake
58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
59. Joseph Patrick Smith, Exxon
60. Richard K Smith, Nabbors Production Company
61. Paul Street, Nalco chemical company
62. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
63. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
64. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
65. Sanjay Vittale, Shell Oil
66. Douglas Wyatt, URS Corporation—conflict of interest
67. Victor Ziegler, Occidental Petroleum

Thank you for your attention.

Respectfully submitted,

Roxanne Groff
Amesville, Ohio 45711

From: Debra Hall
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/17/2012 11:13 AM
Subject: Comments for the selection of the final US EPA Science Advisory Board ( SAB) Panel to review, Horizontal Fracking

**Re: Comments for the selection of the final US EPA Science Advisory Board ( SAB) Panel to review**
**Horizontal Fracking**

**Dear US EPA:**

Citizens understand all too well how extremely political this particular issue is. We understand that EPA is under immense pressure, (as they always have been) , by industry, politicians and industry allies. However, the US EPA's mandate and indeed, your oath taken, as public servants, to uphold the Constitution to first and foremost *protect the health and welfare* of Americans - not just from enemies from without, but to protect from possible dangers from within. We believe this must be your guide in selecting this very Science Advisory Board Panel to review Horizontal Fracking Concerns, given the incredibly high stakes regarding public health.

As someone who has in the past dealt with the Science Advisory Board personally at our Uniontown IEL Superfund Site, Ohio in the 1990s, used as a case in point for the rest of the nation, my concerns are numerous regarding the usage of this panel, given that experience. We saw the US EPA and other agencies ***hide behind that final SAB report*** **to avoid being held accountable down the road**, even though investigations later revealed that many on the SAB panel were **not even qualified** to review specific radiation test methods - supposedly their main task in convening the panel. Indeed, it is believed that the results of that highly questionable SAB report issued in 1994 have had grave and far reaching consequences, not only for our Superfund site specifically, but we believe the SAB report was used by EPA to *seriously undermine the concerns that had been expressed for many years internally by US EPA's own Research & Development S*cientists, when those experts tried to stop the usage of the "US EPA Finished Drinking Water 900 Method," when it came to testing for radiation of **raw, untreated water supplies i.e, typically involved at toxic dumpsites around the country**. (We are concerned this outdated, shoddy policy may still be in effect today, impacting any sampling for radiation regarding fracking waste water).

**Therefore, perhaps we understand better than most, how the Science Advisory Board report can be used to diminish any other technical concerns voiced thereafter, even from US EPA's own technical experts, or other government agencies, and independent academia,** ***no matter how valid they may be. Therefore, e*****very effort must be made by your staff to compile a final panel list that is comprised of not only truly technically *qualified* and objective members of various diciplines; individuals should have a**

**verifiable personal history that demonstrates they have previously conducted themselves in a fair and balanced way, with no financial ties to the said industry, either directly or indirectly (via current university grants etc.) With this criteria in mind, please further consider the following:**

*** Carefully consider the list submitted to you by Ohio Buckeye Forest Council's Ms. Cantino**

*** Select Mr. Joseph Ryan, who has radiation expertise, and at least one other radiation expert - specifically a qualified "radio chemist" . This is essential...Radiation may be the one of the most serious, long lasting health concerns involved with fracking. The panel will be seriously technically lacking from the onset, if it fails to include such a qualified radio chemist.**

*** Select Prof. Anthony Ingraffea, extremely qualified on the matter of fracking as an engineer and professor**

*** Develop a strict process format and make this process public immediately prior to the process beginning*, that outlines in a very concise, detailed manner how the panel's drafts and ultimate final report(s) will be carried out, including how/who will author the final version*.**

NOTE: *We had learned at our IEL site, that while there may have been excellent draft work products during this process, from the subgroup's individually assigned tasks, we were told that unfortunately, the notes from those were then re written by* ***just two individuals****, with reportedly, much "editing" taking place by those two individuals. The public needs to be told how the report is to evolve, what checks and balances will there be along the way right up to when the report hits the streets. I.e, will a "draft" report be released for public comment first with a formal comment period*?

**Bottom line: If EPA chooses to select panelists with clear ties to industry ( ie., "shills" as they are called) clearly this process will be tainted from day one. However, even beyond that, even if a solid balanced, and qualified committee *is* selected on the front end, there must be safeguards in place to protect the integrity of this process to enhance credibility in this process.**

Regards,
Hopewell Junction Citizen for Clean Water
Debra Hall, Founder
Hopewell Junction, NY

From: Trish Harness
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/16/2012 10:00 AM
Subject: List of acceptable and unacceptable candidates for EPA science advisory board

December 16, 2012

TO: Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

RE: Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:
Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. Following this list is a second list of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Given the record of deep shale drilling and high pressure horizontal

hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.

Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:

1. Henry Anderson

2. Boufadel, Michel

3. Susan Brantley

4. Brownawell, Bruce

5. Janice Chambers

6. Dzombak, David A.

7. Edstrom, Robert

8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

12. Anthony Ingraffea

13. Lyman McDonald statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking

water contamination

17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18. Jerome Paulson

19. Joseph N. Ryan, U. of Colorado, Boulder

20. Daniel Schlenk

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

The scientific credibility of the EPA is damaged by committees with real or perceived bias

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for

industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," id. App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," id. § 5(b)(2), and does not contain members with inappropriate special interests. Id.§ 5(b)(3).

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25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking:

"One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute no, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

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50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
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52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with Eagle One Green Solutions, LLC described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having "developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+). In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."
53. Richard Phillips, Exxon Mobil since 1988
54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate: epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.
55. Danny Reible
56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/), revealing his lack of expertise and understanding of the existing substantive evidence to the contrary. The candidate also states that

“gas is better than coal”
lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc,
revealing his lack of either knowledge or objectivity, since the science on lifecycle greenhouse gas emissions increasingly suggests otherwise.

57. Bert Smith, Chesapeake
58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
59. Joseph Patrick Smith, Exxon
60. Richard K Smith, Nabbors Production Company
61. Paul Street, Nalco chemical company
62. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
63. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
64. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry “managing liability”. No advanced degree.
65. Sanjay Vittale, Shell Oil
66. Douglas Wyatt, URS Corporation—conflict of interest
67. Victor Ziegler, Occidental Petroleum

Thank you for your time and close attention in this critical matter – so many people are currently affected by horizontal drilling, and so many more will be in the future. The time is now to think deeply and objectively about how to pursue this source of energy in a way that doesn't cost more to the community than they get out of it.

Trish Harness
Garrettsville, OH, 44231

From: Kathleen Heller
To: Edward Hanlon/DC/USEPA/US@EPA
Cc: Jeff Heller <windyhill9565@yahoo.com>
Date: 12/17/2012 08:44 AM
Subject: candidates for panel

Mr. Edward Hanlon:

I am the president of the Steuben County Landowners Coalition in "upstate" New York. We represent over 205,000 acres in our membership, and about 1700 families. We support hydraulic fracturing. Shocking to some, we also want to see our land and water protected!|||

In the nearly five years that I have been involved in the struggle with the environmentalists ( as if landowners are not "environmentalists") I have come to "know" (listen to and read) four of your candidates. Two of them impress me as objective scientists and two as totally unobjective "scientists".|

Dr. Don Siegel of Syracuse is definitely on any favorable list. When I once referred to him as "pro drilling" he corrected me, fairly diplomatically. He informed me that he was not necessarily pro-drilling, but he was most certainly "anti-bad science". I find that attitude most "refreshing" on this subject.

Dr. Scott Cline I have heard speak many times, and I have read quite a bit of his writings on this subject. He is extremely knowledgeable and extremely objective, or realistic, on fracturing. |

Dr. Anthony Ingraffea and Dr. Robert Howarth on the other hand, while very vocal, are very unreliable on this issue. They are obviously agenda driven more then "science" driven. Much of their work has been discredited by their fellow faculty members. |

Jeff Heller
Bradford, N.Y. 14815|||
Preferences

From: "Johnson, Badger"
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 11:40 AM
Subject: RE: Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Hi Mr. Hanlon,

These are my comments on the nomination of candidates for inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study, and to reject 67 other nominations.

Basically, I want to see people who will speak up when they see the possibility of groundwater contamination, which means NOT filling the Board with a bunch of industry hacks. These people don't have to be anti-fracking activists, but they need to joyfully acknowledge all the risks of the process and bring industry to heel when they try to step out of line.

Per USEPA guidelines and criteria, I will support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. Following this list is a second list of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.

Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:

1. Henry Anderson
2. Boufadel, Michel
3. Susan Brantley
4. Brownawell, Bruce
5. Janice Chambers
6. Dzombak, David A.

7. Edstrom, Robert
8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington
9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University
10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist
11. Robert Howarth
12. Anthony Ingraffea
13. Lyman McDonald statistician and biologist
14. Lisa McKenzie
15. Karlis Muehlenbach
16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination
17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez
18. Jerome Paulson
19. Joseph N. Ryan, U. of Colorado, Boulder
20. Daniel Schlenk
21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.
22. Geoffery Thyne
23. Jeanne Van Briessen
24. Avner Vengosh
25. Perry R. Walker
26. Paul Westerhoff

The scientific credibility of the EPA is damaged by committees with real or perceived bias
Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the

EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.
By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.
The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," id. App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," id. § 5(b)(2), and does not contain members with inappropriate special interests. Id.§ 5(b)(3).
Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.
If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, then invitations to address the committee during public meetings are appropriate. However, individuals with financial conflicts should not be serving as members of the SAB.
The following 67 are all unacceptable candidates for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re going to find you. It’s something people are fearful of, but it’s not a reality.” And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and
allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)

4. Stephen Bachu
5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
6. Baldassare, Fred. Conflict of interest.
7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner—financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley – Conflict of interest: consults regularly with industry per her cv.
13. Corrie Clark
14. Cline, Scott Bradley 15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John—WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking) 26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute no, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

27. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
28. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
29. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.
35. Gary Klecka, worked for Dow for most of this career; now an independent consultant
36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
37. Steven Lewis, Exxon-Mobil for most of his career.
38. Abby Li, most of her career at Monsanto
39. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
40. Keith Wilson Lynch
41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
45. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
47. Nygaard, KJ, Exxon Mobil
48. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste

industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
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53. Richard Phillips, Exxon Mobil since 1988
54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate: epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
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66. Douglas Wyatt, URS Corporation—conflict of interest
67. Victor Ziegler, Occidental Petroleum

Love and Solidarity!

Badger Johnson

From: James Johnson
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/17/2012 08:46 PM
Subject: Ad Hoc panel being formed

December 17, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov

Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

**Dear Mr. Hanlon:**

Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. *Following this list* is a *second list* of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

**Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is**

**essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.**

**Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:**

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1. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

1. Robert Howarth

1. Anthony Ingraffea

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1. Daniel Schlenk

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**The scientific credibility of the EPA is damaged by committees with real or perceived bias**

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

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**The following 67 are all unacceptable candidates** for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial *as evidenced in their publications and public speaking*. Many in this list also do *not* have complete conflict of interest disclosures in their bios.

**Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:**

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2. W. Kenneth Armagost, Andarko Petroleum
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continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)

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8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner—financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: "In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and a colleague wrote a letter to the technical journal *Environmental Health Perspectives* about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague disputed having a conflict of interest."
13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John—WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you

develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

1. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
2. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
3. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
4. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
5. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
6. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
7. Jester, Stephen, ConocoPhillips
8. George E. King, Apache Corp.
9. Gary Klecka, worked for Dow for most of this career; now an independent consultant
10. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
11. Steven Lewis, Exxon-Mobil for most of his career.
12. Abby Li, most of her career at Monsanto
13. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
14. Keith Wilson Lynch
15. Dean Malouta (most of his career with Shell)
16. Steve Mamerow (Pioneer Natural Resources)
17. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry

18. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
19. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
20. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
21. Nygaard, KJ, Exxon Mobil
22. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
23. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
24. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
25. Thomas Parkerton, Exxon Mobil entire career
26. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with **Eagle One Green Solutions, LLC** described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having **"developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).** In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."
27. Richard Phillips, Exxon Mobil since 1988
28. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate: epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad

Her presentations show bias as suggested by financial conflict of interest.

1. Danny Reible
2. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/), revealing his lack of expertise and understanding of the

existing substantive evidence to the contrary. The candidate also states that "gas is better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing his lack of either knowledge or objectivity, since the science on lifecycle greenhouse gas emissions increasingly suggests otherwise.

3. Bert Smith, Chesapeake
4. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
5. Joseph Patrick Smith, Exxon
6. Richard K Smith, Nabbors Production Company
7. Paul Street, Nalco chemical company
8. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
9. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
10. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
11. Sanjay Vittale, Shell Oil
12. Douglas Wyatt, URS Corporation—conflict of interest
13. Victor Ziegler, Occidental Petroleum

Respectfully
James H. Johnson MD
Athens, Oh
45701

December 16, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:
Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. *Following this list* is a *second list* of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

**Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.**

**Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:**

1.Henry Anderson

2.Boufadel, Michel



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3.Susan Brantley

4.Brownawell, Bruce

5.Janice Chambers

6.Dzombak, David A.

7.Edstrom, Robert

8.Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9.Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

10.Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

11.Robert Howarth

12.Anthony Ingraffea

13.Lyman McDonald statistician and biologist

14.Lisa McKenzie

15.Karlis Muehlenbach

16.Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

17.Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18.Jerome Paulson

19.Joseph N. Ryan, U. of Colorado, Boulder

20.Daniel Schlenk

21.Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the



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Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

**The scientific credibility of the EPA is damaged by committees with real or perceived bias**

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

**By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.**



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The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," *id.* App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," *id.* § 5(b)(2), and does not contain members with inappropriate special interests. *Id.* § 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, *then invitations to address the committee during public meetings are appropriate.* **However, individuals with financial conflicts should not be serving as members of the SAB.**

**The following 67 are all unacceptable candidates** for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial *as evidenced in their publications and public speaking*. Many in this list also do *not* have complete conflict of interest disclosures in their bios.

**Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:**

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, "These (state regulatory agencies) have field inspectors, rules and regulations, if you're a bad actor, not doing a good job, they're going to find you. It's something people are fearful of, but it's not a reality." And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
4. Stephen Bachu
5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not



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listed.

6. Baldassare, Fred. Conflict of interest.
7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner—financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: "In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and a colleague wrote a letter to the technical journal *Environmental Health Perspectives* about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague disputed having a conflict of interest."
13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas_NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John—WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' ...As for abandoned wells causing



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contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

27. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
28. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
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30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.
35. Gary Klecka, worked for Dow for most of this career; now an independent consultant
36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
37. Steven Lewis, Exxon-Mobil for most of his career.
38. Abby Li, most of her career at Monsanto
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40. Keith Wilson Lynch
41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
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44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.



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45. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
47. Nygaard, KJ, Exxon Mobil
48. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
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51. Thomas Parkerton, Exxon Mobil entire career
52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with **Eagle One Green Solutions, LLC** described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having **"developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).** In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."
53. Richard Phillips, Exxon Mobil since 1988
54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
    epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
    Her presentations show bias as suggested by financial conflict of interest.
55. Danny Reible
56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/), revealing his lack of expertise and understanding of the existing substantive evidence to the contrary. The candidate also states that "gas is better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing his lack of either knowledge or objectivity, since the science on lifecycle greenhouse gas emissions



12/17/2012 18:04 FAX 262 255 2840 CANON 008/009

increasingly suggests otherwise.

57. Bert Smith, Chesapeake
58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
59. Joseph Patrick Smith, Exxon
60. Richard K Smith, Nabbors Production Company
61. Paul Street, Nalco chemical company
62. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
63. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
64. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
65. Sanjay Vittale, Shell Oil
66. Douglas Wyatt, URS Corporation—conflict of interest
67. Victor Ziegler, Occidental Petroleum

**Very Truly,**

**Ani Karetka**

**Chardon, OH 44024**



12/17/2012 18:05 FAX 262 255 2840 CANON 009/009

From: Debbie Kasper
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/16/2012 12:48 PM
Subject: Scientific Advisory Board, comments
Sent by: Debbie Kasper

Dear Mr. Hanlon,

Please see the attached letter for my comments regarding Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov regarding public comment period on announced list for Hydraulic Fracturing Science Advisory Board .

Sincerely,
Debbie Kasper

--
Debbie V.S. Kasper
Environmental Studies
Hiram College
Hiram, OH 44234

EPA yes and no lists for SAB.docx

December 16, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
hanlon.edward@epa.gov

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:
The following are my comments on the nomination of candidates for possible inclusion

on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

With regard to USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. In what follows is a second list of those whose appointment I strongly *oppose and urge USEPA to reject*, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

It is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest. **Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:**

1. Henry Anderson
2. Boufadel, Michel
3. Susan Brantley
4. Brownawell, Bruce
5. Janice Chambers
6. Dzombak, David A.
7. Edstrom, Robert
8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington
9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University
10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist
11. Robert Howarth
12. Anthony Ingraffea
13. Lyman McDonald statistician and biologist
14. Lisa McKenzie
15. Karlis Muehlenbach
16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination
17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18. Jerome Paulson
19. Joseph N. Ryan, U. of Colorado, Boulder
20. Daniel Schlenk
21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.
22. Geoffery Thyne
23. Jeanne Van Briessen
24. Avner Vengosh
25. Perry R. Walker
26. Paul Westerhoff

Given the potential for water contamination and the inevitable accompaniment of air pollution, increased GHG emissions, community disruption, and the large environmental and carbon footprints of this industrial process, **it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest**.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This scientific review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

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The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or

recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," *id.* App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," *id.* § 5(b)(2), and does not contain members with inappropriate special interests. *Id.*§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, *then invitations to address the committee during public meetings are appropriate.* **However, individuals with financial conflicts should not be serving as members of the SAB.**

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**Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:**

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2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re going to find you. It’s something people are fearful of, but it’s not a reality.” And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
4. Stephen Bachu
5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
6. Baldassare, Fred. Conflict of interest.
7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced

water purification device used to remediate wastewater from hydraulic fracturing operations

8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner—financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: "In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and a colleague wrote a letter to the technical journal *Environmental Health Perspectives* about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague disputed having a conflict of interest."
13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John—WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we

design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

27. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
28. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
29. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.
35. Gary Klecka, worked for Dow for most of this career; now an independent consultant
36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
37. Steven Lewis, Exxon-Mobil for most of his career.
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39. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
40. Keith Wilson Lynch
41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
45. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.

46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
47. Nygaard, KJ, Exxon Mobil
48. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
51. Thomas Parkerton, Exxon Mobil entire career
52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with **Eagle One Green Solutions, LLC** described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having **"developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).** In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."
53. Richard Phillips, Exxon Mobil since 1988
54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
    epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
    Her presentations show bias as suggested by financial conflict of interest.
55. Danny Reible
56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/), revealing his lack of expertise and understanding of the existing substantive evidence to the contrary. The candidate also states that "gas is better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing his lack of either knowledge or objectivity, since the science on lifecycle greenhouse gas emissions increasingly suggests otherwise.
57. Bert Smith, Chesapeake

58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
59. Joseph Patrick Smith, Exxon
60. Richard K Smith, Nabbors Production Company
61. Paul Street, Nalco chemical company
62. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
63. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
64. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
65. Sanjay Vittale, Shell Oil
66. Douglas Wyatt, URS Corporation—conflict of interest
67. Victor Ziegler, Occidental Petroleum

From: Peter & Irene Maizitis
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 05:54 AM
Subject: Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:

December 19, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

**FROM:** Peter & Irene Maizitis, North Royalton, Ohio 44133

Dear Mr. Hanlon:

Please accept and convey the following as our comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

We are writing to support the appointment of the following 30 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, we **support** these 30 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. *Following this list* is a *second list* of 67 candidates whose appointment we strongly **oppose** and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

**Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased greenhouse gas (GHG) emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.**

**Please consider appointing your committee from the following 30 candidates, those who clearly show evidence of scientific objectivity and appropriate expertise:**

1. Henry Anderson

2. Boufadel, Michel

3. Susan Brantley

4. Brownawell, Bruce

5. Janice Chambers

6. Dzombak, David A.

7. Edstrom, Robert

8. Elaine M. Faustman, PhD, Professor, Department of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9. Dr. Madelon L. Finkel, Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

12. Anthony Ingraffea

13. Lyman McDonald statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water

contamination

17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18. Jerome Paulson

19. Joseph N. Ryan, U. of Colorado, Boulder

20. Daniel Schlenk

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen (whom Food and Water Watch's lead water researcher recommends as he believes will bring a "healthy dose of precaution and skepticism")

24. Avner Vengosh (whom Food and Water Watch's lead water researcher recommends as he believes will bring a "healthy dose of precaution and skepticism")

25. Perry R. Walker

26. Paul Westerhoff

27. Allen Shapiro (whom Food and Water Watch's lead water researcher recommends as he believes will bring a "healthy dose of precaution and skepticism")

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**The scientific credibility of the EPA is damaged by committees with real or perceived bias**

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I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including greenhouse gas emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

**By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.**

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23. Economides, Michael (consultant; editor-in-chief Energy Tribune
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25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

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53. Richard Phillips, Exxon Mobil since 1988
54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.
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Thank you for your attention,

Peter & Irene Maizitis
North Royalton, Ohio 44133

Dec. 19, 2012

From: Loraine McCosker
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 02:14 PM
Subject: Science Advisory Board on Hydraulic Fracturing nominations recommendations

Mr. Hanlan

Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing provided in the attachment.

Best regards,

Loraine McCosker

Athens Ohio 45701
Comments_On_SAB_Panel_Short_List[1].doc

December 19, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

**FROM:** Loraine McCosker, 59 Elmwood Place Athens Ohio 45701

Dear Mr. Hanlon:
Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. *Following this list* is a *second list* of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

**It is of extraordinary importance circumstances that the science regarding HPHHF be devoid of industry pressures given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.**

**Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:**

1. Henry Anderson

2. Boufadel, Michel

3. Susan Brantley

4. Brownawell, Bruce

5. Janice Chambers

6. Dzombak, David A.

7. Edstrom, Robert

8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

12. Anthony Ingraffea

13. Lyman McDonald statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18. Jerome Paulson

19. Joseph N. Ryan, U. of Colorado, Boulder

20. Daniel Schlenk

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

**The scientific credibility of the EPA is damaged by committees with real or perceived bias**

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

**By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.**

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," *id.* App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," *id.* § 5(b)(2), and does not contain members with inappropriate special interests. *Id.*§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, *then invitations to address the committee during public meetings are appropriate.* **However, individuals with financial conflicts should not be**

**serving as members of the SAB.**

**The following 67 are all unacceptable candidates** for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial *as evidenced in their publications and public speaking*. Many in this list also do *not* have complete conflict of interest disclosures in their bios.

**Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:**

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, "These (state regulatory agencies) have field inspectors, rules and regulations, if you're a bad actor, not doing a good job, they're going to find you. It's something people are fearful of, but it's not a reality." And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
4. Stephen Bachu
5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
6. Baldassare, Fred. Conflict of interest.
7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner—financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley – Conflict of interest: consults regularly with industry per her cv.
13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John—WY political conflict of interest

18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

    All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.
27. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
28. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
29. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."

30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.
35. Gary Klecka, worked for Dow for most of this career; now an independent consultant
36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
37. Steven Lewis, Exxon-Mobil for most of his career.
38. Abby Li, most of her career at Monsanto
39. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
40. Keith Wilson Lynch
41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
45. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
47. Nygaard, KJ, Exxon Mobil
48. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
51. Thomas Parkerton, Exxon Mobil entire career
52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with **Eagle One Green Solutions, LLC** described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having **"developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).** In a single dose, Fe6+ can simultaneously

perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."

53. Richard Phillips, Exxon Mobil since 1988
54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
    epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
    Her presentations show bias as suggested by financial conflict of interest.
55. Danny Reible
56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective. (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/) This shows lack of expertise and understanding of existing evidence to the contrary. The candidate also states that "gas as better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing lack of either knowledge or objectivity, since the science increasingly suggests otherwise in terms of lifecycle greenhouse gas emissions.
57. Bert Smith, Chesapeake
58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
59. Joseph Patrick Smith, Exxon
60. Richard K Smith, Nabbors Production Company
61. Paul Street, Nalco chemical company
62. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
63. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
64. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
65. Sanjay Vittale, Shell Oil
66. Douglas Wyatt, URS Corporation—conflict of interest
67. Victor Ziegler, Occidental Petroleum

Thank you for your attention,
Loraine McCosker

Athens Ohio 45701
December 19, 2012

From: Andrea Saffell
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 10:17 PM
Subject: SAB for Hydraulic Fracking

Dear Mr. Hanlon,

I am an Ohio resident and can say that I am no longer proud to be one. A fracking rig was built next to our township park, a pipeline will be built through my neighborhood in a suburb of Youngstown, and my neighbors have leased their mineral rights to the oil and gas companies to permit well drilling should they find what they are looking for. There are detonators and explosives for seismic testing located in the woods by our house, one of them 100 feet from our neighbors' birdhouse--knowledge of this only because the neighbors themselves came across it. All of this is occurring without our permission. All of this is occurring without knowing what the consequences on the health of our two very young children will be. We need qualified scientific experts on the Science Advisory Board!

The Science Advisory Board will have a profound effect on the EPA's study of the effects of fracking on groundwater and the environment. Prior SAB panels have failed the American people and have allowed contamination to occur and then persist without cleanup. Of great concern is the fact that there seems to be only one radiation expert on the panel, Joseph Ryan. Radiation experts should be placed on this panel, given that shale can contain high levels of radioactivity. Radiation is one of the contaminants that will persist in the environment the longest and can bioaccumulate. Knowing that the make-up of this panel will have a significant impact on the U.S. EPA groundwater report and national policy, I recommend the following experts for the SAB:

Henry Anderson
Michel Boufadel
Susan Brantly
Bruce Brownawell
Janice Chambers
David Dzombak
Robert Edstrom
Elaine Faustman
Dr. Madelon Finkel
Fred Henretig
Robert Howarth
Anthony Ingraffea
Lymen McDonald
Lisa McKenzie
Karlis Muhlenbach

Eileen Murphy
Dr. Ingrid Padilla
Jerome Paulson
Joseph Ryan
Daniel Schlenk
Dr. Karen Swackhamer
Geoffery Thyne
Jeanne VanBriessen
Amer Vengosh
Perry Walker
Paul Westerholf

Please consider any conflicts of interest other nominees may have.

Thank you for you time,
Andrea Moore
Lowellville, OH 44436

From: "Mordick, Briana"
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 08:31 PM
Subject: NRDC Comments on the List of Candidates for the EPA SAB Hydraulic Fracturing Advisory Panel

Dear Mr. Hanlon,

Please find attached comments by the Natural Resources Defense Council on the List of Candidates for the EPA Science Advisory Board Hydraulic Fracturing Advisory Panel. We appreciate the opportunity to provide feedback and thank you for your consideration of these comments.

Sincerely,
Briana Mordick

**Briana Mordick**
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Natural Resources Defense Council
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NRDC-Comments_EPA-HF-Study-SAB-Panel_19Dec12.pdf

NRDC Comments on the List of Candidates for the EPA Science Advisory Board Hydraulic Fracturing Advisory Panel, December, 2012 1

December 19, 2012
Edward Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office (1400F)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460
Comments on the List of Candidates for the

EPA Science Advisory Board Hydraulic Fracturing Advisory Panel

Dear Mr. Hanlon,

The following comments are being submitted on behalf of the Natural Resources Defense Council (NRDC). NRDC is a national, non-profit legal and scientific organization with 1.3 million members and activists nationwide. Since its founding in 1970, NRDC has been actively involved in a wide range of environmental issues, including oil and gas exploration and production as well as drinking water protection. NRDC is currently actively involved in issues surrounding oil and gas development and hydraulic fracturing. NRDC greatly appreciates the effort that the U.S. Environmental Protection Agency (EPA) has dedicated, and plans to devote in the future, to investigate the potential public health and environmental protection issues associated with hydraulic fracturing. In particular we note the steps the agency has taken to ensure maximum public input and transparency.

NRDC strongly supports the selection criteria established by the EPA for nominees to the Panel, including: (a) scientific and/or technical expertise, knowledge, and experience; (b) availability and willingness to serve; (c) absence of financial conflicts of interest; (d) absence of appearance of a lack of impartiality; (e) skills working in committees, subcommittees and advisory panels; and, for the Panel as a whole; (f) diversity of expertise and viewpoints. With these criteria in mind, NRDC respectfully submits the following comments on the nominated candidates.

Nominees with financial conflicts of interest and an appearance of lack of impartiality should be excluded

In keeping with the criteria established by EPA itself, we urge EPA to select panel members who have no financial conflicts of interest and are impartial, and to exclude any nominees without those qualifications. It is essential that any nominees be independent, free from any biases, and committed to pure scientific inquiry. NRDC Comments on the List of Candidates for the EPA Science Advisory Board Hydraulic Fracturing Advisory Panel, December, 2012 2

These criteria ensure nominees who are dedicated to the public interest as well as to the mission of the EPA. The Agency cannot accomplish its vital mission or fulfill its legal duty if its regulatory priorities and environmental concerns are influenced by people who have a financial stake in the outcome.

The recommendations of this SAB Panel are likely to impact federal and/or state regulation of hydraulic fracturing. Yet in general, the oil and gas industry opposes any regulations that strengthen protections of health and the environment due to financial priorities and has not supported independent scientific inquiry into these issues. The Panel, therefore, must be composed in a manner that ensures that this perspective does not influence scientific decisions. Thus, nominees affiliated with industry or receiving industry support are unfit to provide EPA with robust independent scientific advice.

By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible. The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," id. App. II, § 9(2), is

"fairly balanced in terms of points of view represented and the function to be performed," id. § 5(b)(2), and does not contain members with inappropriate special interests. Id.§ 5(b)(3).

EPA invited comments on any nominees that had relevant expertise and willingness to serve on the panel. EPA, however, did not omit nominees that failed to meet its other criteria, particularly the absence of financial conflicts of interest and the absence of an appearance of a lack of impartiality. Some nominees are clearly ineligible for service on the Panel due to financial conflicts and should have been omitted. It is unreasonable to expect the public to develop informative and researched comments on 144 nominated panel members in such a short period of time when in fact only a very small number of them will be selected to serve on the panel. Since EPA will be reviewing their confidential disclosure forms and have additional information that is not available to the public, this screening should have been done before publishing the list for comment. We are additionally concerned that the conflicts of some members were not disclosed in the information provided in the biosketches.

The Panel must be composed of scientists who are able to provide a fair and complete review of all relevant data or issues. Regardless of technical and subject-matter expertise and relevant experience, individuals with financial conflicts should not be serving as members of the Panel when there are candidates without such conflicts. Industry representatives with such knowledge and expertise will still have opportunities to provide information relevant to the deliberations of the Panel 

during public comment and through the extensive stakeholder process devised by EPA, as will public interest and environmental organizations.

We object to the following individuals

With all due respect to their experience and knowledge, the following individuals cannot be considered impartial and/or are conflicted, and should not serve on this Panel, for the reasons provided here.

• Nominees who are currently employed by the oil and gas industry (operators, service companies, etc), and therefore do not meet the selection criteria for absence of financial conflicts of interest and absence of appearance of a lack of impartiality:

Armagost, Kenneth Anadarko Petroleum Corporation
Bratton, Thomas Schlumberger Technology Corporation
Buscheck, Timothy Chevron Energy Technology Company
Daniels, Eric Chevron Energy Technology Company
East, Loyd Halliburton Energy Services
Ellison, Timothy ExxonMobil Upstream Research Company
Hufford, Walter Talisman Energy USA
Hyden, Ron Halliburton Energy Services
Jester, Stephen ConocoPhillips
King, George Apache Corporation
Lynch, Keith Wilson ConocoPhillips Company
Mamerow, Steve Pioneer Natural Resources
Moos, Daniel Baker Hughes
Nygaard, K.J. ExxonMobil Production Company

Parkerton, Thomas ExxonMobil Biomedical Sciences
Phillips, Richard ExxonMobil Biomedical Sciences, Inc.
Smith, Bert Chesapeake Energy Corporation
Smith, Joseph Patrick ExxonMobil Upstream Research Company
Smith, Richard Nabors Completion and Production Services
Street, Paul Nalco
Vitthal, Sanjay Shell Center of Excellence for Unconventional Resources
Ziegler, Victor Occidental Petroleum Corporation

Nominees who work as consultants for the oil and gas industry, and therefore do not meet the selection criteria for absence of financial conflicts of interest and may not meet the selection criteria for absence of appearance of a lack of impartiality:

Arthur, Daniel
ALL Constultingi
Bagawandoss, Kesavalu
Accutest Laboratoriesii
Coleman, Nancy Pees
Environmental Consultantsiii
Collins, James
Independent Consultantiv
Erb, James
Independent Consultantv
Fassett, Gordon
HDR Engineering, Inc.vi
Fontana, John
Vista GeoScience LLCvii
Hayes, Thomas
Gas Technology Institute E&P Centerviii
Kaback, Dawn
AMEC Environment & Infrastructure, Inc.ix
Malouta, Dean
Independent Oil and Gas Consultantx
Raja, Suresh
Providence Engineering and Environmental
Group, LLCxi
Syed, Talib
Independent Consultantxii
Tintera, John James
Sebree & Tinteraxiii
Vitale, Rock
Environmental Standards, Inc.xiv
• Nominees who receive grant money from
the oil and gas industry, and therefore do not
meet the selection criteria for absence of

financial conflicts of interest and may not meet the selection criteria for absence of appearance of a lack of impartiality:

Burnett, David
Texas A&M Universityxv
Davis, Thomas
Colorado School of Minesxvi
Dunn-Norman, Shari
Missouri University of Science and Technologyxvii
Economides, Michael
University of Houstonxviii
Ensor, Katherine Bennett
Rice Universityxix
Olson, Jon
University of Texasxx
Reible, Danny
University of Texasxxi
Tutuncu, Azra
Colorado School of Minesxxii
• Other:
Almond, Stephen
MeadWestvaco
Barry, Terence
AquaMost
Cline, Scott Bradley
U.S. Internal Revenue Service
Curtright, Aimee
RAND Corporation
Klecka, Gary
Independent Consultant
Dr. Almond's current employer, MeadWestvaco, provides goods and services to the oil and gas industryxxiii, and therefore he does not meet the selection criteria for absence of financial conflicts of interest and may not meet the selection criteria for absence of appearance of a lack of impartiality. Furthermore, as stated in his biosketch, Dr. Almond, "…worked for Halliburton for over 30 years…" and therefore may not meet the selection criteria for absence of appearance of a lack of impartiality.
Dr. Barry's current employer, AquaMost,

provides services to the oil and gas industryxxiv and therefore he does not meet the selection criteria for absence of financial conflicts of interest and may not meet the selection criteria for absence of appearance of a lack of impartiality.

Dr. Cline has made public statementsxxv that indicate he may have preconceived conclusions about the potential impacts of hydraulic fracturing on drinking water and ground water, and therefore he does not meet the selection criteria for absence of a lack of impartiality.

As stated in her biosketch, Dr. Curtright, "…was the organizer and technical lead for a conference on the technical, legal, and regulatory challenges to using coal mine drainage for hydraulic fracturing, sponsored by the Marcellus Shale Coalition…" According to their website, The Marcellus Shale Coalition "works with exploration and production, midstream, and supply chain partners in the Appalachian Basin and across the country to address issues regarding the production of clean, job-creating, American natural gas from the Marcellus and Utica Shale plays."xxviixxviiixxvi All 11 of the Marcellus Shale Coalition's executive board members are high-ranking oil and gas industry employees and its board is composed of 45 oil and gas companies. As such, Dr. Curtright may not meet the selection criteria for absence of financial conflicts of interest and absence of appearance of a lack of impartiality.

As stated in his biosketch, Dr. Klecka was employed by Dow Chemical Company for over 30 years. Dow Chemical Company manufactures chemicals used in the oil and gas industry.xxix As such, Dr. Klecka may not meet the selection criteria for absence of financial conflicts of interest and absence of appearance of a lack of impartiality.

We support the nominations of the following individuals who have the requisite scientific and technical expertise, knowledge, and

experience, are free of conflict, and we
believe to be impartial:
Bales, Jerad
U.S. Geological Survey
Bank, Tracy
University of Buffalo
Boufadel, Michel
New Jersey Institute of Technology
Boyer, Elizabeth
Pennsylvania State University
Brantley, Susan
Pennsylvania State University
Dzombak, David
Carnegie Mellon University
Finkel, Madelon
Cornell University
Goldstein, Bernard
University of Pittsburgh
Goode, Daniel
U.S. Geological Survey
Henretig, Fred
University of Pennsylvania
Howarth, Robert
Cornell University
Ingraffea, Anthony
Cornell University
McKenzie, Lisa
Colorado School of Public Health
Muehlenbachs, Karlis
University of Alberta
Murdoch, Lawrence C.
Clemson University
Murphy, Eileen
Rutgers University
Paulson, Jerome
George Washington University
Ryan, Joseph
University of Colorado
Saiers, James
Yale University
Shapiro, Allen
U.S. Geological Survey
Swackhamer, Deborah
University of Minnesota
Thyne, Geoffrey
Science Based Solutions

VanBriesen, Jeanne
Carnegie Mellon University
Vengosh, Avner
Duke University
Williams, Mark
University of Colorado

At this time, we are neutral to all prospective nominees not listed above. These other nominees appear to be qualified, non-conflicted and impartial, but we do not have sufficient information to comment on their nominations at this time.

Thank you for your consideration of these comments.

Respectfully,

Briana Mordick
Staff Scientist
Natural Resources Defense Council
111 Sutter Street, 20th Floor
San Francisco, CA 94104

i http://www.all-llc.com/page.php?11

ii http://www.accutest.com/who-we-serve-petroleum-oil-and-gas.htm; As stated in his biosketch, Dr. Bagawandoss also serves as a member of the Marcellus Shale Coalition (see comments on Dr. Curtright).

iii See, e.g. projects with Chesapeake Energy: http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas-NancyColeman-8-7-12.pdf, http://www.gwpc.org/sites/default/files/event-sessions/Coleman_Nancy.pdf

iv As stated in his biosketch, Mr. Collins is a consultant to the oil and gas industry.

v As stated in his biosketch, Mr. Erb is a consultant to the oil and gas industry.

vi http://www.hdrinc.com/markets/energy/oil-and-gas

vii http://www.vistageoscience.com/exp/index.php?page=scl

viii http://www.gastechnology.org/Expertise/Pages/SupplyExpertise.aspx

ix

http://www.amec.com/sectors/oil_and_gas/oil_and_gas.htm

x As stated in his biosketch, Mr. Malouta is currently a contract employee for Shell Oil and his research has been supported by funding from Shell Oil.

xi http://www.providenceeng.com/P/Industries/

xii As stated in his biosketch, Mr. Syed is a consultant to the oil and gas industry.

xiii http://www.fwbusinesspress.com/main.asp?SectionID=9&SubSectionID=34&ArticleID=19035

xiv http://www.fwbusinesspress.com/main.asp?SectionID=9&SubSectionID=34&ArticleID=19035

xv The Global Petroleum Research Institute (GPRI) administers research funded by 12 major oil and gas companies: Anadarko, BP, BHP Billiton, Chevron, ConocoPhillips, ExxonMobil, Marathon, Shell, Statoil, and Total. According to its website, "…membership is open to any qualifying entity, with significant revenues from petroleum exploration and production activities…" http://www.pe.tamu.edu/gpri-new/home/about.htm

xvi The Colorado School of Mines (CSM) Reservoir Characterization Project (RCP) is an oil- and gas-industry sponsored research consortium, with current and/or past funding supplied by 55 oil and gas exploration and production companies and related service companies. http://geophysics.mines.edu/rcp/sponsors.html

xvii As stated in her biosketch, Dr. Dunn-Norman has received research funding from the American Petroleum Institute.

xviii Dr. Economides is a former employee of Schlumberger, an industry leader in hydraulic fracturing services. The website of the University of Houston states that his

“research efforts involve the optimization of the overall hydrocarbon production system from the reservoir, the wellbore and to the market.”
http://www.chee.uh.edu/faculty/economides#research
The website of SCA: Subsurface Consultants and Associates, LLC states that Dr. Economides is Managing Partner of Dr. Michael J. Economides Consultants, Inc. with clients including national oil companies.
http://www.scacompanies.com/training_services/instructor_bios.html#mjeconomides
xix As stated in her biosketch, Dr. Ensor has received funding from the Korean National Oil Company
xx Dr. Olson is a former employee of Mobil. Dr Olson is a researcher and administrator of FRAC, the Fracture Research and Application Consortium, a research group at the University of Texas pursuing the goal of “Understanding and successfully predicting, characterizing, and simulating reservoir-scale structures”. FRAC is financially supported by 20 oil and gas industry companies, as listed on its website.
http://www.beg.utexas.edu/frac/sponsors.php
As stated in his biosketch, Dr. Olson has received contracts for research from Shell and ExxonMobil Corporations.
xxi As stated in his biosketch, Dr. Reible has received funding from Chevron.
xxii As stated in her bio sketch, Dr. Tutuncu is a former employee of Shell and has received research funding from ExxonMobil Corporation, Hess Oil Company, Chevron, Shell, ENI, Statoil, Talisman, Halliburton, Schlumberger, Pemex, PlusPetrol and Venoco.
xxiii
http://www.meadwestvaco.com/SpecialtyChemicals/OilfieldChemicals/index.htm
xxiv http://www.aquamost.com/
xxv See, e.g. http://www.anga.us/media-room/videos/hear-our-voices/scott-cline,

http://eidmarcellus.org/blog/inexperienced-geologists-fracking-fantasies-obscure-facts/6027/

xxvi http://marcelluscoalition.org/

xxvii http://marcelluscoalition.org/about/executive-committee/

xxviii http://marcelluscoalition.org/about/full-members/

xxix http://oilandgas.dow.com/

December 19, 2012

Edward Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office (1400F)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Comments on the List of Candidates for the
EPA Science Advisory Board Hydraulic Fracturing Advisory Panel

Dear Mr. Hanlon,

The following comments are being submitted on behalf of the Natural Resources Defense Council (NRDC). NRDC is a national, non-profit legal and scientific organization with 1.3 million members and activists nationwide. Since its founding in 1970, NRDC has been actively involved in a wide range of environmental issues, including oil and gas exploration and production as well as drinking water protection. NRDC is currently actively involved in issues surrounding oil and gas development and hydraulic fracturing.

NRDC greatly appreciates the effort that the U.S. Environmental Protection Agency (EPA) has dedicated, and plans to devote in the future, to investigate the potential public health and environmental protection issues associated with hydraulic fracturing. In particular we note the steps the agency has taken to ensure maximum public input and transparency.

NRDC strongly supports the selection criteria established by the EPA for nominees to the Panel, including: (a) scientific and/or technical expertise, knowledge, and experience; (b) availability and willingness to serve; (c) absence of financial conflicts of interest; (d) absence of appearance of a lack of impartiality; (e) skills working in committees, subcommittees and advisory panels; and, for the Panel as a whole; (f) diversity of expertise and viewpoints. With these criteria in mind, NRDC respectfully submits the following comments on the nominated candidates.

**Nominees with financial conflicts of interest and an appearance of lack of impartiality should be excluded**

In keeping with the criteria established by EPA itself, we urge EPA to select panel members who have no financial conflicts of interest and are impartial, and to exclude any nominees without those qualifications. It is essential that any nominees be independent, free from any biases, and committed to pure scientific inquiry.

These criteria ensure nominees who are dedicated to the public interest as well as to the mission of the EPA. The Agency cannot accomplish its vital mission or fulfill its legal duty if its regulatory priorities and environmental concerns are influenced by people who have a financial stake in the outcome.

The recommendations of this SAB Panel are likely to impact federal and/or state regulation of hydraulic fracturing. Yet in general, the oil and gas industry opposes any regulations that strengthen protections of health and the environment due to financial priorities and has not supported independent scientific inquiry into these issues. The Panel, therefore, must be composed in a manner that ensures that this perspective does not influence scientific decisions. Thus, nominees affiliated with industry or receiving industry support are unfit to provide EPA with robust independent scientific advice.

By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible. The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," id. App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," id. § 5(b)(2), and does not contain members with inappropriate special interests. Id.§ 5(b)(3).

EPA invited comments on any nominees that had relevant expertise and willingness to serve on the panel. EPA, however, did not omit nominees that failed to meet its other criteria, particularly the absence of financial conflicts of interest and the absence of an appearance of a lack of impartiality. Some nominees are clearly ineligible for service on the Panel due to financial conflicts and should have been omitted. It is unreasonable to expect the public to develop informative and researched comments on 144 nominated panel members in such a short period of time when in fact only a very small number of them will be selected to serve on the panel. Since EPA will be reviewing their confidential disclosure forms and have additional information that is not available to the public, this screening should have been done before publishing the list for comment. We are additionally concerned that the conflicts of some members were not disclosed in the information provided in the biosketches.

The Panel must be composed of scientists who are able to provide a fair and complete review of all relevant data or issues. Regardless of technical and subject-matter expertise and relevant experience, individuals with financial conflicts should not be serving as members of the Panel when there are candidates without such conflicts. Industry representatives with such knowledge and expertise will still have opportunities to provide information relevant to the deliberations of the Panel

during public comment and through the extensive stakeholder process devised by EPA, as will public interest and environmental organizations.

**We object to the following individuals**

With all due respect to their experience and knowledge, the following individuals cannot be considered impartial and/or are conflicted, and should not serve on this Panel, for the reasons provided here.

- Nominees who are currently employed by the oil and gas industry (operators, service companies, etc), and therefore do not meet the selection criteria for absence of financial conflicts of interest and absence of appearance of a lack of impartiality:

| | |
|---|---|
| Armagost, Kenneth | Anadarko Petroleum Corporation |
| Bratton, Thomas | Schlumberger Technology Corporation |
| Buscheck, Timothy | Chevron Energy Technology Company |
| Daniels, Eric | Chevron Energy Technology Company |
| East, Loyd | Halliburton Energy Services |
| Ellison, Timothy | ExxonMobil Upstream Research Company |
| Hufford, Walter | Talisman Energy USA |
| Hyden, Ron | Halliburton Energy Services |
| Jester, Stephen | ConocoPhillips |
| King, George | Apache Corporation |
| Lynch, Keith Wilson | ConocoPhillips Company |
| Mamerow, Steve | Pioneer Natural Resources |
| Moos, Daniel | Baker Hughes |
| Nygaard, K.J. | ExxonMobil Production Company |
| Parkerton, Thomas | ExxonMobil Biomedical Sciences |
| Phillips, Richard | ExxonMobil Biomedical Sciences, Inc. |
| Smith, Bert | Chesapeake Energy Corporation |
| Smith, Joseph Patrick | ExxonMobil Upstream Research Company |
| Smith, Richard | Nabors Completion and Production Services |
| Street, Paul | Nalco |
| Vitthal, Sanjay | Shell Center of Excellence for Unconventional Resources |
| Ziegler, Victor | Occidental Petroleum Corporation |

- Nominees who work as consultants for the oil and gas industry, and therefore do not meet the selection criteria for absence of financial conflicts of interest and may not meet the selection criteria for absence of appearance of a lack of impartiality:

| | |
|---|---|
| Arthur, Daniel | ALL Constulting[i] |
| Bagawandoss, Kesavalu | Accutest Laboratories[ii] |
| Coleman, Nancy Pees | Environmental Consultants[iii] |
| Collins, James | Independent Consultant[iv] |
| Erb, James | Independent Consultant[v] |
| Fassett, Gordon | HDR Engineering, Inc.[vi] |
| Fontana, John | Vista GeoScience LLC[vii] |
| Hayes, Thomas | Gas Technology Institute E&P Center[viii] |
| Kaback, Dawn | AMEC Environment & Infrastructure, Inc.[ix] |
| Malouta, Dean | Independent Oil and Gas Consultant[x] |
| Raja, Suresh | Providence Engineering and Environmental Group, LLC[xi] |
| Syed, Talib | Independent Consultant[xii] |
| Tintera, John James | Sebree & Tintera[xiii] |
| Vitale, Rock | Environmental Standards, Inc.[xiv] |

- Nominees who receive grant money from the oil and gas industry, and therefore do not meet the selection criteria for absence of financial conflicts of interest and may not meet the selection criteria for absence of appearance of a lack of impartiality:

| | |
|---|---|
| Burnett, David | Texas A&M University[xv] |
| Davis, Thomas | Colorado School of Mines[xvi] |
| Dunn-Norman, Shari | Missouri University of Science and Technology[xvii] |
| Economides, Michael | University of Houston[xviii] |
| Ensor, Katherine Bennett | Rice University[xix] |
| Olson, Jon | University of Texas[xx] |
| Reible, Danny | University of Texas[xxi] |
| Tutuncu, Azra | Colorado School of Mines[xxii] |

- Other:

| | |
|---|---|
| Almond, Stephen | MeadWestvaco |
| Barry, Terence | AquaMost |
| Cline, Scott Bradley | U.S. Internal Revenue Service |
| Curtright, Aimee | RAND Corporation |
| Klecka, Gary | Independent Consultant |

Dr. Almond's current employer, MeadWestvaco, provides goods and services to the oil and gas industry[xxiii], and therefore he does not meet the selection criteria for absence of financial conflicts of interest and may not meet the selection criteria for absence of appearance of a lack of impartiality. Furthermore, as stated in his

biosketch, Dr. Almond, "…worked for Halliburton for over 30 years…" and therefore may not meet the selection criteria for absence of appearance of a lack of impartiality.

Dr. Barry's current employer, AquaMost, provides services to the oil and gas industry[xxiv] and therefore he does not meet the selection criteria for absence of financial conflicts of interest and may not meet the selection criteria for absence of appearance of a lack of impartiality.

Dr. Cline has made public statements[xxv] that indicate he may have preconceived conclusions about the potential impacts of hydraulic fracturing on drinking water and ground water, and therefore he does not meet the selection criteria for absence of a lack of impartiality.

As stated in her biosketch, Dr. Curtright, "…was the organizer and technical lead for a conference on the technical, legal, and regulatory challenges to using coal mine drainage for hydraulic fracturing, sponsored by the Marcellus Shale Coalition…" According to their website, The Marcellus Shale Coalition "works with exploration and production, midstream, and supply chain partners in the Appalachian Basin and across the country to address issues regarding the production of clean, job-creating, American natural gas from the Marcellus and Utica Shale plays."[xxvi] All 11 of the Marcellus Shale Coalition's executive board members[xxvii] are high-ranking oil and gas industry employees and its board is composed of 45 oil and gas companies[xxviii]. As such, Dr. Curtright may not meet the selection criteria for absence of financial conflicts of interest and absence of appearance of a lack of impartiality.

As stated in his biosketch, Dr. Klecka was employed by Dow Chemical Company for over 30 years. Dow Chemical Company manufactures chemicals used in the oil and gas industry.[xxix] As such, Dr. Klecka may not meet the selection criteria for absence of financial conflicts of interest and absence of appearance of a lack of impartiality.

**We support the nominations of the following individuals who have the requisite scientific and technical expertise, knowledge, and experience, are free of conflict, and we believe to be impartial:**

| | |
|---|---|
| Bales, Jerad | U.S. Geological Survey |
| Bank, Tracy | University of Buffalo |
| Boufadel, Michel | New Jersey Institute of Technology |
| Boyer, Elizabeth | Pennsylvania State University |
| Brantley, Susan | Pennsylvania State University |
| Dzombak, David | Carnegie Mellon University |
| Finkel, Madelon | Cornell University |
| Goldstein, Bernard | University of Pittsburgh |

| | |
|---|---|
| Goode, Daniel | U.S. Geological Survey |
| Henretig, Fred | University of Pennsylvania |
| Howarth, Robert | Cornell University |
| Ingraffea, Anthony | Cornell University |
| McKenzie, Lisa | Colorado School of Public Health |
| Muehlenbachs, Karlis | University of Alberta |
| Murdoch, Lawrence C. | Clemson University |
| Murphy, Eileen | Rutgers University |
| Paulson, Jerome | George Washington University |
| Ryan, Joseph | University of Colorado |
| Saiers, James | Yale University |
| Shapiro, Allen | U.S. Geological Survey |
| Swackhamer, Deborah | University of Minnesota |
| Thyne, Geoffrey | Science Based Solutions |
| VanBriesen, Jeanne | Carnegie Mellon University |
| Vengosh, Avner | Duke University |
| Williams, Mark | University of Colorado |

**At this time, we are neutral to all prospective nominees not listed above. These other nominees appear to be qualified, non-conflicted and impartial, but we do not have sufficient information to comment on their nominations at this time.**

Thank you for your consideration of these comments.

Respectfully,

Briana Mordick
Staff Scientist
Natural Resources Defense Council
111 Sutter Street, 20th Floor
San Francisco, CA 94104

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[i] http://www.all-llc.com/page.php?11
[ii] http://www.accutest.com/who-we-serve-petroleum-oil-and-gas.htm; As stated in his biosketch, Dr. Bagawandoss also serves as a member of the Marcellus Shale Coalition (see comments on Dr. Curtright).
[iii] See, e.g. projects with Chesapeake Energy: http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas-NancyColeman-8-7-12.pdf, http://www.gwpc.org/sites/default/files/event-sessions/Coleman_Nancy.pdf
[iv] As stated in his biosketch, Mr. Collins is a consultant to the oil and gas industry.
[v] As stated in his biosketch, Mr. Erb is a consultant to the oil and gas industry.
[vi] http://www.hdrinc.com/markets/energy/oil-and-gas
[vii] http://www.vistageoscience.com/exp/index.php?page=scl
[viii] http://www.gastechnology.org/Expertise/Pages/SupplyExpertise.aspx
[ix] http://www.amec.com/sectors/oil_and_gas/oil_and_gas.htm

[x] As stated in his biosketch, Mr. Malouta is currently a contract employee for Shell Oil and his research has been supported by funding from Shell Oil.
[xi] http://www.providenceeng.com/P/Industries/
[xii] As stated in his biosketch, Mr. Syed is a consultant to the oil and gas industry.
[xiii] http://www.fwbusinesspress.com/main.asp?SectionID=9&SubSectionID=34&ArticleID=19035
[xiv] http://www.fwbusinesspress.com/main.asp?SectionID=9&SubSectionID=34&ArticleID=19035
[xv] The Global Petroleum Research Institute (GPRI) administers research funded by 12 major oil and gas companies: Anadarko, BP, BHP Billiton, Chevron, ConocoPhillips, ExxonMobil, Marathon, Shell, Statoil, and Total. According to its website, "…membership is open to any qualifying entity, with significant revenues from petroleum exploration and production activities…" http://www.pe.tamu.edu/gpri-new/home/about.htm
[xvi] The Colorado School of Mines (CSM) Reservoir Characterization Project (RCP) is an oil- and gas-industry sponsored research consortium, with current and/or past funding supplied by 55 oil and gas exploration and production companies and related service companies. http://geophysics.mines.edu/rcp/sponsors.html
[xvii] As stated in her biosketch, Dr. Dunn-Norman has received research funding from the American Petroleum Institute.
[xviii] Dr. Economides is a former employee of Schlumberger, an industry leader in hydraulic fracturing services. The website of the University of Houston states that his "research efforts involve the optimization of the overall hydrocarbon production system from the reservoir, the wellbore and to the market." http://www.chee.uh.edu/faculty/economides#research
The website of SCA: Subsurface Consultants and Associates, LLC states that Dr. Economides is Managing Partner of Dr. Michael J. Economides Consultants, Inc. with clients including national oil companies. http://www.scacompanies.com/training_services/instructor_bios.html#mjeconomides
[xix] As stated in her biosketch, Dr. Ensor has received funding from the Korean National Oil Company
[xx] Dr. Olson is a former employee of Mobil. Dr Olson is a researcher and administrator of FRAC, the Fracture Research and Application Consortium, a research group at the University of Texas pursuing the goal of "Understanding and successfully predicting, characterizing, and simulating reservoir-scale structures". FRAC is financially supported by 20 oil and gas industry companies, as listed on its website. http://www.beg.utexas.edu/frac/sponsors.php As stated in his biosketch, Dr. Olson has received contracts for research from Shell and ExxonMobil Corporations.
[xxi] As stated in his biosketch, Dr. Reible has received funding from Chevron.
[xxii] As stated in her bio sketch, Dr. Tutuncu is a former employee of Shell and has received research funding from ExxonMobil Corporation, Hess Oil Company, Chevron, Shell, ENI, Statoil, Talisman, Halliburton, Schlumberger, Pemex, PlusPetrol and Venoco.
[xxiii] http://www.meadwestvaco.com/SpecialtyChemicals/OilfieldChemicals/index.htm
[xxiv] http://www.aquamost.com/
[xxv] See, e.g. http://www.anga.us/media-room/videos/hear-our-voices/scott-cline, http://eidmarcellus.org/blog/inexperienced-geologists-fracking-fantasies-obscure-facts/6027/
[xxvi] http://marcelluscoalition.org/
[xxvii] http://marcelluscoalition.org/about/executive-committee/
[xxviii] http://marcelluscoalition.org/about/full-members/
[xxix] http://oilandgas.dow.com/

From: Mary Ellen Noss
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/18/2012 04:43 PM
Subject: advisory board

Ed_Hanlon_letter_Hydraulic_Fracturing_Dec_2012.doc

December 18, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
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hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

**RE:** Federal Register Notice Vol. 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:
Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. *Following this list* is a *second list* of those whose appointment I strongly oppose and urge USEPA to reject,

based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

**Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.**

**Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:**

1. Henry Anderson

2. Michel Boufadel

3. Susan Brantley

4. Bruce Brownawell

5. Janice Chambers

6. David A. Dzombak

7. Robert Edstrom

8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

10. Fred M. Henretig, University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

12. Anthony Ingraffea

13. Lyman McDonald, statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18. Jerome Paulson

19. Joseph N. Ryan, U. of Colorado, Boulder

20. Daniel Schlenk

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

**The scientific credibility of the EPA is damaged by committees with real or perceived bias**

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

**By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.**

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," *id.* App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," *id.* § 5(b)(2), and does not contain members with inappropriate special interests. *Id.*§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, *then invitations to address the committee during public meetings are appropriate.* **However, individuals with financial conflicts should not be serving as members of the SAB.**

**The following 67 are all <u>unacceptable candidates</u>** for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial *as evidenced in their publications and public speaking*. Many in this list also do *not* have complete conflict of interest disclosures in their bios.

**Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:**

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works

completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re going to find you. It’s something people are fearful of, but it’s not a reality.” And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)

4. Stephen Bachu
5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
6. Fred Baldassare, Conflict of interest.
7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
8. Thomas R. Bratton, Schlumberger Technology. Conflict of interest.
9. James Bruckner—financial ties to industry
10. David Burnett
11. Buscheck, Timothy E
12. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: “In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and a colleague wrote a letter to the technical journal *Environmental Health Perspectives* about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague disputed having a conflict of interest.”
13. Corrie Clark
14. Scott Bradley Cline
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. James W. Collins
17. John Corra—WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am.

Petroleum Inst.)

22. Lloyd East (Halliburton)
23. Michael Economides,(consultant; editor-in-chief Energy Tribune)
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

    All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.
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calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."

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67. Victor Ziegler, Occidental Petroleum

Sincerely,
Mary Ellen Noss

From: "Tish O'Dell"
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/16/2012 10:34 PM
Subject: Comments on SAB Nominees

comments re SAB nominees EPA.doc

December 16, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:
Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. *Following this list* is a *second list* of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

**Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.**

**Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:**

1. Henry Anderson

2. Boufadel, Michel

3. Susan Brantley

4. Brownawell, Bruce

5. Janice Chambers

6. Dzombak, David A.

7. Edstrom, Robert

8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

12. Anthony Ingraffea

13. Lyman McDonald statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18. Jerome Paulson

19. Joseph N. Ryan, U. of Colorado, Boulder

20. Daniel Schlenk

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

**The scientific credibility of the EPA is damaged by committees with real or perceived bias**

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its

regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

**By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.**

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," *id.* App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," *id.* § 5(b)(2), and does not contain members with inappropriate special interests. *Id.*§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, *then invitations to address the committee during public meetings are appropriate.* **However, individuals with financial conflicts should not be serving as members of the SAB.**

**The following 67 are all unacceptable candidates** for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial *as evidenced in their publications and public speaking*. Many in this list also do *not* have complete conflict of interest disclosures in their bios.

**Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:**

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re going to find you. It’s something people are fearful of, but it’s not a reality.” And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
4. Stephen Bachu
5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
6. Baldassare, Fred. Conflict of interest.
7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner—financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: “In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and a colleague wrote a letter to the technical journal *Environmental Health Perspectives* about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague disputed having a conflict of interest.”
13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John—WY political conflict of interest
18. Eric Daniels (Chevron)

19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

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Thank you for your attention,
Tish O'Dell

Broadview Hts.
Dec. 16, 2012

From: "Greg Pace"
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/16/2012 01:18 PM
Subject: recommendations on nominees for SAB

December 16, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

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**Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:**

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3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re going to find you. It’s something people are fearful of, but it’s not a reality.” And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was

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9. James Bruckner—financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: "In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and a colleague wrote a letter to the technical journal *Environmental Health Perspectives* about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague disputed having a conflict of interest."
13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
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26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is

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52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with **Eagle One Green Solutions, LLC** described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having **"developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).** In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."
53. Richard Phillips, Exxon Mobil since 1988
54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:

epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
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66. Douglas Wyatt, URS Corporation—conflict of interest
67. Victor Ziegler, Occidental Petroleum

Thank you for your attention,
Greg Pace
Columbus, OH 43202
Dec. 16, 2012

From: Anthony Paone
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/18/2012 11:16 AM
Subject: EPA Science Advisory Board - Hydraulic Fracturing

Dear Mr. Hanlon,

I understand you are accepting citizen comments about the selection of candidates for the ad hoc panel for the potential impact on drinking water from hydraulic fracturing. I want to ask that Dr. Tony Ingraffea be selected to serve on the panel.

He is very knowledgeable on the subject, respected by his peers, and vastly experienced from his work in the field over the years. It is important that a thorough, fair and balance examination be done on this subject. Many communities in eastern Ohio where I live will be affected. The scope of the oil and gas boom is enormous. The health (water and air quality) and safety of our communities cannot be taken lightly for the sake of profit.

Not enough is being done with respect to the impact of radiation. The panel needs to examine this very carefully because of its long-lasting impact on the environment.

I also ask that the you provide the public with updates on the coordination of the project, what assignments have been made and who will be responsible for the final draft.

Sincerely,

Tony Paone
Canton, OH 44721

From: "Vanessa Pesec" <vpesec@roadrunner.com>
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 02:42 AM
Subject: SAB Panel Candidate Comments

December 19, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004
**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

**FROM:** Vanessa Pesec, 11705 Cali Court, Concord, OH 44077

Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing. I am in support of Heather Cantino's research:

**The scientific credibility of the EPA is damaged by committees with real or perceived bias**

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

**By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.**

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," *id.* App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," *id.* § 5(b)(2), and does not contain members with inappropriate special interests. *Id.*§ 5(b)(3).

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66. Douglas Wyatt, URS Corporation—conflict of interest
67. Victor Ziegler, Occidental Petroleum

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise and objectivity, knowledge, and experience.

1. Henry Anderson

2. Boufadel, Michel

3. Susan Brantley

4. Brownawell, Bruce

5. Janice Chambers

6. Dzombak, David A.

7. Edstrom, Robert

8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

12. Anthony Ingraffea

13. Lyman McDonald statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

17. JP Nicot

18. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

19. Jerome Paulson

20. Joseph N. Ryan, U. of Colorado, Boulder

21. Daniel Schlenk

22. Allen Shaprio

23. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in

the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

24. Geoffery Thyne

25. Jeanne Van Briessen

26. Avner Vengosh

27. Perry R. Walker

28. Paul Westerhoff

From: Pegge Petkovich
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/17/2012 03:45 PM
Subject: comments re: Science Advisory Board on Hydraulic Fracturing

Please read and carefully consider the recommendations I have made. Thank you.

Pegge Petkovich Petkovich comments re SAB nominees HC 12-15-12.docx

December 17, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:

Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. *Following this list* is a *second list* of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific

expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

**Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased green house gas (ghg) emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.**

**Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:**

27. Henry Anderson

28. Boufadel, Michel

29. Susan Brantley

30. Brownawell, Bruce

31. Janice Chambers

32. Dzombak, David A.

33. Edstrom, Robert

34. Elaine M. Faustman, Professor Dept.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

35. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

36. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

37. Robert Howarth

38. Anthony Ingraffea

39. Lyman McDonald statistician and biologist

40. Lisa McKenzie

41. Karlis Muehlenbach

42. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

43. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

44. Jerome Paulson

45. Joseph N. Ryan, U. of Colorado, Boulder

46. Daniel Schlenk

47. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

48. Geoffery Thyne

49. Jeanne Van Briessen

50. Avner Vengosh

51. Perry R. Walker

52. Paul Westerhoff

**The scientific credibility of the EPA is damaged by committees with real or perceived bias.**

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I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

**By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.**

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," *id.* App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," *id.* § 5(b)(2), and does not contain members with inappropriate special interests. *Id.*§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, *then invitations to address the committee during public meetings are appropriate.* **<u>However, individuals with financial conflicts should not be serving as members of the SAB.</u>**

**The following 67 are all <u>unacceptable</u> candidates** for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial *as evidenced in their publications and public speaking*. Many in this list also do *not* have complete conflict of interest disclosures in their bios.

**Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:**

68. Stephen Almond, MeadWestvaco
69. W. Kenneth Armagost, Andarko Petroleum

70. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re going to find you. It’s something people are fearful of, but it’s not a reality.” And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
71. Stephen Bachu
72. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
73. Baldassare, Fred. Conflict of interest.
74. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
75. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
76. James Bruckner—financial ties to industry
77. Burnett, David
78. Buscheck, Timothy E
79. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: “In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and a colleague wrote a letter to the technical journal *Environmental Health Perspectives* about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague disputed having a conflict of interest.”
80. Corrie Clark
81. Cline, Scott Bradley
82. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
83. Collins, James W
84. Corra, John—WY political conflict of interest
85. Eric Daniels (Chevron)
86. Thomas Davis, CO School of Mines
87. Joseph deGeorge (Merck)

88. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
89. Lloyd East (Halliburton)
90. Economides, Michael (consultant; editor-in-chief Energy Tribune
91. Timothy Ellison (Exxon-Mobil)
92. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
93. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

    All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.
94. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
95. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
96. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
97. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
98. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"

99. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
100. Jester, Stephen, ConocoPhillips
101. George E. King, Apache Corp.
102. Gary Klecka, worked for Dow for most of this career; now an independent consultant
103. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
104. Steven Lewis, Exxon-Mobil for most of his career.
105. Abby Li, most of her career at Monsanto
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110. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
111. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
112. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
113. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
114. Nygaard, KJ, Exxon Mobil
115. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
116. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
117. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
118. Thomas Parkerton, Exxon Mobil entire career
119. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with **Eagle One Green Solutions, LLC** described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having **"developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).** In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it

reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."

120. Richard Phillips, Exxon Mobil since 1988
121. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate: epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.
122. Danny Reible
123. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/), revealing his lack of expertise and understanding of the existing substantive evidence to the contrary. The candidate also states that "gas is better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing his lack of either knowledge or objectivity, since the science on lifecycle greenhouse gas emissions increasingly suggests otherwise.
124. Bert Smith, Chesapeake
125. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
126. Joseph Patrick Smith, Exxon
127. Richard K Smith, Nabbors Production Company
128. Paul Street, Nalco chemical company
129. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
130. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
131. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
132. Sanjay Vittale, Shell Oil
133. Douglas Wyatt, URS Corporation—conflict of interest
134. Victor Ziegler, Occidental Petroleum

Thank you for your consideration of my comments.

Sincerely,

Pegge Petkovich
Ravenna, OH 44266

From: Ron Prosek
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/05/2012 11:44 AM
Subject: panel recommendations

Dear Ed,

Please be sure to select Dr. Anthony Ingraffea of Cornell University for the panel. He is probably the best expert around on hydraulic fracturing.

Please also include Dr. Marvin Resnikoff. He has worked for decades on NORM waste issues-- very knowledgeable.

Please also provide the public with specifics as to how this panel will actually coordinate their tasks--how assignments will be made for what, how drafts will be created, and specifically who will be selected to author the final report.

Many thanks,
-Ron Prosek. Vice-president
Network for Oil & Gas Accountability and Protection [www.neogap.org]

From: Ron Prosek
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/17/2012 11:16 AM
Subject: SAB panel recommendations

Dear Mr. Hanlon:

Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am e-mailing to support the appointment of the following 27 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 27 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. Following this list is a second list of those whose appointments I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

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10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

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14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

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requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
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22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women -voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-p rofessor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them,

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Her presentations show bias as suggested by financial conflict of interest.
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56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective. (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/) This shows lack of expertise and understanding of existing evidence to the contrary. The candidate also states that "gas as better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing lack of either knowledge or objectivity, since the science increasingly suggests otherwise in terms of lifecycle greenhouse gas emissions.
57. Bert Smith, Chesapeake
58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
59. Joseph Patrick Smith, Exxon
60. Richard K Smith, Nabbors Production Company
61. Paul Street, Nalco chemical company
62. Talib Syed - not a scientist. Production engineer, whole career has been in industry.
63. James John Tintera - not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
64. Rock Vitale, Environmental Standards, Inc.-not a scientist, works entirely for industry "managing liability". No advanced degree.
65. Sanjay Vittale, Shell Oil
66. Douglas Wyatt, URS Corporation-conflict of interest
67. Victor Ziegler, Occidental Petroleum

Sincerely,
Ron Prosek, Vice-President
Network for Oil & Gas Accountability and Protection
www.neogap.org
and Convener,

Faith Communities Together for Frac Awareness [FaCT]

From: Kathryn Rapose
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/18/2012 11:00 PM
Subject: Science Advisory Board Comments

Mr. Hanlon,
please read my attached comments regarding the Science Advisory Board that will be reviewing the effects of Shale Drilling on Groundwater.

Thank you. EPA comments Science Advisory Board.doc

December 18, 2012

TO: Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

RE: Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

FROM: Kathryn Rapose, Ashtabula, Ohio 44004

Dear Mr. Hanlon:

Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.
I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial.
Following this list is a second list of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.

Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:

1. Henry Anderson

2. Boufadel, Michel

3. Susan Brantley

4. Brownawell, Bruce

5. Janice Chambers

6. Dzombak, David A.

7. Edstrom, Robert

8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and

Director of the Office of Global Health at the Weill Medical College, Cornell University

10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

12. Anthony Ingraffea

13. Lyman McDonald statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18. Jerome Paulson

19. Joseph N. Ryan, U. of Colorado, Boulder Mr.Ryan may be the only candidate with actual expertise in radiation. Considering the potential for radioactive by-products in this process, Mr. Ryan should be a top candidate.

20. Daniel Schlenk

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

The scientific credibility of the EPA is damaged by committees with real or perceived bias

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," id. App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," id. § 5(b)(2), and does not contain members with inappropriate special interests. Id.§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, then invitations to address the committee during public meetings are appropriate. However, individuals with financial conflicts should not be serving as members of the SAB.

The following 67 are all unacceptable candidates for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-st ories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, "These (state regulatory agencies) have field inspectors, rules and regulations, if you're a bad actor, not doing a good job, they're going to find you. It's something people are fearful of, but it's not a reality." And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
4. Stephen Bachu
5. E. Scott Bair - conflict of interest with financial ties to industry. Recent funding not listed.
6. Baldassare, Fred. Conflict of interest.
7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations

8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner-financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley - Conflict of interest: consults regularly with industry per her cv.
13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John-WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute no, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' ...As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These

statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

27. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
28. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission..." (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
29. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.
35. Gary Klecka, worked for Dow for most of this career; now an independent consultant
36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
37. Steven Lewis, Exxon-Mobil for most of his career.
38. Abby Li, most of her career at Monsanto
39. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
40. Keith Wilson Lynch
41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower

costs, reduce risk or improve productivity for the global oil and gas industry.

45. Michael Nickolaus-not a scientist, works for industry-funded (American Petroleum Institute among others) organization.

46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.

47. Nygaard, KJ, Exxon Mobil

48. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.

49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.

50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.

51. Thomas Parkerton, Exxon Mobil entire career

52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with Eagle One Green Solutions, LLC described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having "developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+). In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."

53. Richard Phillips, Exxon Mobil since 1988

54. Laura Plunkett, Integrative Biostrategies, LLC -industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.

55. Danny Reible

56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective.
(environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing

/) This shows lack of expertise and understanding of existing evidence to the contrary. The candidate also states that "gas as better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing lack of either knowledge or objectivity, since the science increasingly suggests otherwise in terms of lifecycle greenhouse gas emissions.

57. Bert Smith, Chesapeake
58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
59. Joseph Patrick Smith, Exxon
60. Richard K Smith, Nabbors Production Company
61. Paul Street, Nalco chemical company
62. Talib Syed - not a scientist. Production engineer, whole career has been in industry.
63. James John Tintera - not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
64. Rock Vitale, Environmental Standards, Inc.-not a scientist, works entirely for industry "managing liability". No advanced degree.
65. Sanjay Vittale, Shell Oil
66. Douglas Wyatt, URS Corporation-conflict of interest
67. Victor Ziegler, Occidental Petro

Thank you for your consideration of these comments.
The issue of safe groundwater is of utmost importance. I believe that drinking water will be more precious than oil to my children.
Please appoint credible and impartial candidates to the Science Advisory Board.

Sincerely,

Kathryn Rapose
Ashtabula, Ohio 44004

December 18, 2012

From: Lynda Rose
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/16/2012 09:39 AM
Subject: candidate nomination re public comment

December 16, 2012

Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
USEPA Science Advisory Board (1400R)
1200 Pennsylvania Ave.
N.W., Washington, D.C. 20460

USEPA Science Advisory Board, Ronald Reagan Building
1300 Pennsylvania Avenue NW, Suite 31150
Washington, D.C. 20004

Re: Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:
Please review my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing. I wish for you to convey public comments regarding hydraulic fracturing.

I write to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. I've also included a second list of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Given the record of deep shale drilling and high pressure horizontal

hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest. I regard our water particularly and our natural resources in general as precious and worthy of our utmost consideration.

Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:

1. Henry Anderson
2. Boufadel, Michel
3. Susan Brantley
4. Brownawell, Bruce
5. Janice Chambers
6. Dzombak, David A.
7. Edstrom, Robert
8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington
9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University
10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist
11. Robert Howarth
12. Anthony Ingraffea
13. Lyman McDonald statistician and biologist
14. Lisa McKenzie
15. Karlis Muehlenbach
16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination
17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez
18. Jerome Paulson
19. Joseph N. Ryan, U. of Colorado, Boulder
20. Daniel SchlenkDr. Karen Swackhamer, Professor of Science, Technology,
and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.
21. Geoffery Thyne
22. Jeanne Van Briessen

23. Avner Vengosh
24. Perry R. Walker
25. Paul Westerhoff

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest. The scientific credibility of the EPA is damaged by committees with real or perceived bias.

As a concerned citizen, I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

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collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," id. App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," id. § 5(b)(2), and does not contain members with inappropriate special interests. Id.§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, then invitations to address the committee during public meetings are appropriate. However, individuals with financial conflicts should not be serving as members of the SAB.

The following 67 are all unacceptable candidates for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re going to find you. It’s something people are fearful of, but it’s not a reality.” And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
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5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
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8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner—financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: "In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and a colleague wrote a letter to the technical journal Environmental Health Perspectives about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague disputed having a conflict of interest."
13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John—WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking:
"One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are

maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute no, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

27. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)

28. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.

29. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."

30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry

31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"

32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement

33. Jester, Stephen, ConocoPhillips

34. George E. King, Apache Corp.

35. Gary Klecka, worked for Dow for most of this career; now an independent consultant

36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric

products."

37. Steven Lewis, Exxon-Mobil for most of his career.

38. Abby Li, most of her career at Monsanto

39. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)

40. Keith Wilson Lynch

41. Dean Malouta (most of his career with Shell)

42. Steve Mamerow (Pioneer Natural Resources)

43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry

44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.

45. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.

46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.

47. Nygaard, KJ, Exxon Mobil

48. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.

49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.

50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.

51. Thomas Parkerton, Exxon Mobil entire career

52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with Eagle One Green Solutions, LLC described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having "developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+). In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and

acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."

53. Richard Phillips, Exxon Mobil since 1988

54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate: epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.

55. Danny Reible

56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/), revealing his lack of expertise and understanding of the existing substantive evidence to the contrary. The candidate also states that "gas is better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc,
revealing his lack of either knowledge or objectivity, since the science on lifecycle greenhouse gas emissions increasingly suggests otherwise.

57. Bert Smith, Chesapeake

58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far.
Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)

59. Joseph Patrick Smith, Exxon

60. Richard K Smith, Nabbors Production Company

61. Paul Street, Nalco chemical company

62. Talib Syed – not a scientist. Production engineer, whole career has been in industry.

63. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.

64. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.

65. Sanjay Vittale, Shell Oil

66. Douglas Wyatt, URS Corporation—conflict of interest

67. Victor Ziegler, Occidental Petroleum

Thanks for your careful consideration,
Lynda Rose
Athens, OH 45701
Dec. 16, 2012

From: "Dan & Bev Seiple"
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/05/2012 12:31 PM
Subject: Horizontal Fracking Board

Dear Mr. Hanlon,

Please appoint Drs Marvin Resnikoff and Anthony Ingraffea to the Horizontal Fracking Science Advisory Board.

Thank you, Daniel E. Seiple 1933 Wynstone Circle N.E., North Canton, Ohio 44720
danbev22@neo.rr.com

From: Ursula Rick
To: Edward Hanlon/DC/USEPA/US@EPA
Cc: Kathleen Sgamma
Date: 12/19/2012 04:32 PM
Subject: Western Energy Alliance comments on the EPA Science Advisory Board Hydraulic Fracturing Panel

Dear Mr. Hanlon,

Please find attached Western Energy Alliance's comments on the nominees for the EPA Science Advisory Board's Hydraulic Fracturing Advisory Panel. Thank you for the opportunity to provide input, and we hope our comments will prove helpful in the formation of the panel. Please do not hesitate to call or email if you have questions.

Sincerely,

Ursula Rick, PhD
Regulatory Affairs Analyst
Western Energy Alliance
410 17th Street, Suite 700
Denver, CO 80202
Ph 303-623-0987
Fax 303-893-0709
www.westernenergyalliance.org

Western Energy Alliance comments - EPA SAB Hydraulic Fracturing Panel Nominees 121912.pdf

December 19, 2012
*Submitted via email: hanlon.edward@epa.gov*
Mr. Edward Hanlon
Designated Federal Officer
Science Advisory Board Staff Office
Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20004
**RE: Candidates for the EPA Science Advisory Board Hydraulic Fracturing Advisory Panel**

Dear Mr. Hanlon:

Western Energy Alliance appreciates the opportunity to provide comments on the nominees for the Environmental Protection Agency's (EPA) Science Advisory Board Hydraulic Fracturing Advisory Panel. We represent over 400 companies engaged in all aspects of environmentally responsible exploration and production of natural gas and oil across the West. Our members include highly trained scientists and engineers with many years of experience in all aspects of hydraulic fracturing. Western Energy Alliance is happy to see that the list of nominees includes several such members of industry, and we encourage EPA to ensure that a significant number of these industry nominees are on the Hydraulic Fracturing Advisory Panel.

Western Energy Alliance believes that the Hydraulic Fracturing Advisory Panel can positively impact the focus and direction of the EPA hydraulic fracturing study. However, it is essential to appoint a balanced and diverse group of experts to the panel. We believe it is important for EPA to select a panel of individuals with relevant scientific and engineering expertise. This should include those who have practical experience with all aspects of hydraulic fracturing. This will ensure the study remains useful for decision-making and provides practical, scientifically robust results. Nominees chosen for the panel should have a proven track record of rigorous and objective work in their areas of technical knowledge.

Nominees with a history of unfounded bias against hydraulic fracturing or oil and natural gas development are not appropriate for an advisory panel whose purpose is to "provide advice and review the '*Progress Report: Potential Impacts of Hydraulic Fracturing on Drinking Water Resources,'*" and Western Energy Alliance believes EPA should not include such individuals. Unfortunately, there are several nominees who have shown publicly their bias against hydraulic fracturing and oil and natural gas development. We provide a list below. Western Energy Alliance comments –Comments on EPA Science Advisory Board Hydraulic Fracturing Advisory Panel Nominees December 19, 2012 Page 2 of 2

Michel Boufadel, Ph.D.
Robert Howarth, Ph.D.
Anthony Ingreffea, Ph.D.
Lisa McKenzie, Ph.D.
Karlis Muehlenbachs, Ph.D.
Deborah Swackhammer, Ph.D.
Geoffrey Thyne, Ph.D.
Jeanne Vanbriesen, Ph.D.
Avner Vengosh, Ph.D.
Perry Walker, Ph.D.
Lauren Zeise, Ph.D.

These individuals have abandoned their objective, uninterested scientific credentials by working with and accepting funding from those advocating against the oil and natural gas industry or by publishing error-filled papers on oil and gas operations. Many of these authors have refused to correct their findings even when other scientists unconnected to the oil and gas industry point out their errors. This behavior leads us to question their willingness to objectively review EPA's progress report.

Thank you for the opportunity to comment on the list of nominees for EPA's Hydraulic Fracturing Advisory Panel. Western Energy Alliance hopes EPA will honestly evaluate the credentials of the industry nominees and include many of them on the panel.

Sincerely,

Kathleen M. Sgamma
VP, Government & Public Affairs
Western Energy Alliance

From: Jamie Sitko
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/18/2012 01:48 PM
Subject: nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing

Dear Ed Hanlon,

Please consider the points I have included in my attached letter regarding the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

Thank you for your time,
Jamie Sitko

Science_Advisory_Board_on_Hydraulic_Fracturing.doc

December 18, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

**RE:** Federal Register Notice Vol. 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:

Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. *Following this list* is a *second list* of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

**Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.**

**Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:**

27. Henry Anderson

28. Michel Boufadel

29. Susan Brantley

30. Bruce Brownawell

31. Janice Chambers

32. David A. Dzombak

33. Robert Edstrom

34. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

35. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

36. Fred M. Henretig, University of Pennsylvania, pediatric toxicologist

37. Robert Howarth

38. Anthony Ingraffea

39. Lyman McDonald, statistician and biologist

40. Lisa McKenzie

41. Karlis Muehlenbach

42. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

43. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

44. Jerome Paulson

45. Joseph N. Ryan, U. of Colorado, Boulder

46. Daniel Schlenk

47. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

48. Geoffery Thyne

49. Jeanne Van Briessen

50. Avner Vengosh

51. Perry R. Walker

52. Paul Westerhoff

**The scientific credibility of the EPA is damaged by committees with real or perceived bias**

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming

environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

**By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.**

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," *id.* App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," *id.* § 5(b)(2), and does not contain members with inappropriate special interests. *Id.*§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, *then invitations to address the committee during public meetings are appropriate.* **However, individuals with financial conflicts should not be serving as members of the SAB.**

**The following 67 are all <u>unacceptable candidates</u>** for inclusion on the SAB based

either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial *as evidenced in their publications and public speaking*. Many in this list also do *not* have complete conflict of interest disclosures in their bios.

**Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:**

68. Stephen Almond, MeadWestvaco
69. W. Kenneth Armagost, Andarko Petroleum
70. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, "These (state regulatory agencies) have field inspectors, rules and regulations, if you're a bad actor, not doing a good job, they're going to find you. It's something people are fearful of, but it's not a reality." And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
71. Stephen Bachu
72. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
73. Fred Baldassare, Conflict of interest.
74. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
75. Thomas R. Bratton, Schlumberger Technology. Conflict of interest.
76. James Bruckner—financial ties to industry
77. David Burnett
78. Buscheck, Timothy E
79. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: "In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and a colleague wrote a letter to the technical journal *Environmental Health Perspectives* about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague disputed having a conflict of interest."
80. Corrie Clark

81. Scott Bradley Cline
82. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
83. James W. Collins
84. John Corra—WY political conflict of interest
85. Eric Daniels (Chevron)
86. Thomas Davis, CO School of Mines
87. Joseph deGeorge (Merck)
88. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
89. Lloyd East (Halliburton)
90. Michael Economides,(consultant; editor-in-chief Energy Tribune)
91. Timothy Ellison (Exxon-Mobil)
92. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
93. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

    All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.
94. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
95. Gordon Fassett, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…"

(hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.

96. John V. Fontana, Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
97. Thomas D. Hayes, Gas Technology Institute E&P Center: extensive financial ties to industry
98. Walter R. Hufford, Talisman Energy USA 30 years' experience in "energy industry"
99. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
100. Stephen Jester, ConocoPhillips
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107. Keith Wilson Lynch
108. Dean Malouta (most of his career with Shell)
109. Steve Mamerow (Pioneer Natural Resources)
110. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
111. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
112. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
113. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
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117. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.

118. Thomas Parkerton, Exxon Mobil entire career
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120. Richard Phillips, Exxon Mobil since 1988
121. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.
122. Danny Reible
123. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/), revealing his lack of expertise and understanding of the existing substantive evidence to the contrary. The candidate also states that "gas is better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing his lack of either knowledge or objectivity, since the science on lifecycle greenhouse gas emissions increasingly suggests otherwise.
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125. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
126. Joseph Patrick Smith, Exxon
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128. Paul Street, Nalco chemical company
129. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
130. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.

131. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
132. Sanjay Vittale, Shell Oil
133. Douglas Wyatt, URS Corporation—conflict of interest
134. Victor Ziegler, Occidental Petroleum

Sincerely,
Jamie Sitko

From: Shelley Stark
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/17/2012 01:10 PM
Subject: Comments on announced list for Hydraulic Fracturing Science Advisory Board

TO: Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
hanlon.edward@epa.gov

USEPA Science Advisory Board (1400R)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

December 17, 2012

RE: Federal Register Notice, Vol. 77, Number 162, Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:
Please enter this letter into the record as my recommendations and comments on the nomination of candidates for inclusion on the Science Advisory Board on Hydraulic Fracturing.
I wish to recommend the following 26 persons to the SAB for the USEPA Hydraulic Fracturing study.
Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. Following this list is a second list of those whose appointment I strongly oppose. Based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of

ability to be impartial, as evidenced in their publications and public speaking, I urge the USEPA to reject them as candidates for this commitee. Many in this list also do not have complete conflict of interest disclosures in their bios.

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased greenhouse gas emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.

Please consider appointing your committee from the following 26 people. These are individuals with ample documented evidence of scientific objectivity and appropriate expertise:

1. Henry Anderson
2. Michel Boufadel
3. Susan Brantley
4. Bruce Brownawell
5. Janice Chambers
6. David A. Dzombak
7. Robert Edstrom
8. Elaine M. Faustman, Professor Depy. of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine, University of Washington
9. Dr. Madelon L. Finkel, Professor of Clinical Public Health and Director of the Office of Global Health, Weill Medical College, Cornell University
10. Fred M. Henretig, University of Pennsylvania, pediatric toxicologist
11. Robert Howarth
12. Anthony Ingraffea
13. Lyman McDonald, statistician and biologist
14. Lisa McKenzie
15. Karlis Muehlenbach
16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination
17. James Northrup
18. Dr. Ingrid Padilla, Professor, Environmental and Water Resources Engineering, Department of Civil Engineering and Surveying; and Director of the Environmental Engineering Laboratory (EEL), University of Puerto Rico, Mayagüez
19. Jerome Paulson
20. Joseph N. Ryan, U. of Colorado, Boulder
21. Daniel Schlenk
22. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy, Hubert H. Humphrey School of Public Affairs; and Co-Director of the University's Water Resources Center.
23. Geoffery Thyne
24. Jeanne Van Briessen
25. Avner Vengosh
26. Perry R. Walker

27. Paul Westerhoff

The scientific credibility of the EPA is damaged by committees with real or perceived bias.

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased greenhouse gas emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including greenhouse gas emissions) and water consumption. This scientific review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," id. App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," id. § 5(b)(2), and does not contain members with inappropriate special interests. Id.§ 5(b)(3).

Committee membership should exclude financially conflicted members, as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, then invitations to address the committee during public meetings are appropriate. However, individuals with financial conflicts should not be serving as members of the SAB.

Following is a list of those whose appointment I strongly oppose. Based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial, as evidenced in their publications and public speaking, I urge the USEPA to reject them as candidates for this committee. Many in this list also do not have complete conflict of interest disclosures in their bios.
The following 67 are UNACCEPTABLE candidates for inclusion on the SAB.
Please REJECT the nominations of the following:

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12).
4. Stephen Bachu
5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
6. Fred Baldassare. Conflict of interest.
7. Terence Barry, Aquamost. Conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
8. Thomas R. Bratton, Schlumberger Technology. Conflict of interest.
9. James Bruckner – financial ties to industry
10. David Burnett
11. Timothy E. Buscheck
12. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: “In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and a colleague wrote a letter to the technical journal Environmental Health Perspectives about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague disputed having a conflict of interest.”
13. Corrie Clark
14. Scott Bradley Cline
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. James W. Collins
17. John Corra – WY political conflict of interest
18. Eric Daniels (Chevron)

19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Shari Dunn-Norman (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Michael Economides (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth. http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.
27. James Erb – conflict of interest: consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
28. Gordon Fassett, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
29. John V. Fontana, Vista GeoScience LLC – conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
30. Thomas D. Hayes, Gas Technology Institute E&P Center: extensive financial ties to industry
31. Walter R. Hufford, Talisman Energy USA; 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Stephen Jester, ConocoPhillips
34. George E. King, Apache Corp.
35. Gary Klecka – worked for Dow for most of this career; now an independent consultant
36. Philip Leber – "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
37. Steven Lewis, Exxon-Mobil for most of his career
38. Abby Li, most of her career at Monsanto
39. Sean Lieske, CO – believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)

40. Keith Wilson Lynch
41. Dean Malouta – most of his career with Shell
42. Steve Mamerow, Pioneer Natural Resources
43. Carl T. Montgomery, NSI Technologies – works for industry, paid promoter of industry
44. Daniel Moos, Baker Hughes – Baker Hughes Incorporated (NYSE: BHI) "creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry."
45. Michael Nickolaus – not a scientist, works for industry-funded (American Petroleum Institute among others) organizations
46. Jean-Philippe Nicot – funding not disclosed; extensive historic ties to industry; has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption
47. KJ Nygaard, Exxon Mobil
48. Jon Olson – funding from oil and gas companies' consortium, Shell, and Exxon Mobil; Career has been to promote hydraulic fracturing
49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
50. Thomas Parkerton, Exxon Mobil for entire career
51. Deepak Patil – not a scientist; career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with Eagle One Green Solutions, LLC, as described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having "developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).
52. Richard Phillips, Exxon Mobil since 1988
53. Laura Plunkett, Integrative Biostrategies, LLC – industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate: epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad. Her presentations show bias as suggested by financial conflict of interest.
54. Danny Reible
55. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/), revealing his lack of expertise and understanding of the existing substantive evidence to the contrary. The candidate also states that "gas is better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-

process#.UMrNpHPjlzc, revealing his lack of either knowledge or objectivity, since the science on lifecycle greenhouse gas emissions increasingly suggests otherwise.

56. Bert Smith, Chesapeake
57. Donald Siegel – discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, greenhouse gas emission, and climate crisis perspectives).
58. Joseph Patrick Smith, Exxon
59. Richard K Smith, Nabbors Production Company
60. Paul Street, Nalco chemical company
61. Talib Syed – not a scientist. Production engineer; entire career has been in industry.
62. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
63. Rock Vitale, Environmental Standards, Inc. – not a scientist, works entirely for industry "managing liability." No advanced degree.
64. Sanjay Vittale, Shell Oil
65. Douglas Wyatt, URS Corporation – conflict of interest
66. Victor Ziegler, Occidental Petroleum

Thank you for your attention and review of the points brought forward in this letter. I look forward to knowing that you have formed a truly objective, unbiased and scientific Hydraulic Fracturing Science Advisory Board.

Yours sincerely,

Shelley Stark
Amesville, OH 45711
EPA Sci Adv Board nominees and rejects.pdf

From: Nancy Sullivan
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/16/2012 11:07 PM
Subject: Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

December 14, 2012

TO: Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)

Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

RE: Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

FROM: Heather Cantino, Athens OH 45701

Dear Mr. Hanlon:
Please accept my comments on the nomination of candidates for possible inclusion on the Science Advisory Board (SAB) on Hydraulic
Fracturing.

I have reviewed USEPA guidelines and criteria for this Board and support the appointment of the following 26 names to the SAB
for the USEPA Hydraulic Fracturing study.

I recommend these 26 candidates based on their scientific expertise, knowledge, experience and ability to be both informed and
impartial.

Following their names is a second list of those whose appointment I strongly oppose. I hope you will agree and reject them, based on USEPA written criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be

impartial as evidenced in their
publications and public speaking. Many have also failed to complete conflict of interest disclosures in their bios.

it is essential that federal regulatory efforts avoid any taint of industry bias and conflicts of interest. Currently horizontal hydraulic fracturing is coming under increased scrutiny today as we learn more about the resulting water contamination, air pollution, increased greenhouse gas emissions and community disruption as well as illnesses and deaths of humans and animals. Any objective study will examine the overwhelming environmental and carbon footprints of this industrial process.

I hope you will select your committee from the following 26 people, whose biographies, background and public statements demonstrate scientific objectivity as well as expertise:

1. Anderson, Henry

2. Boufadel, Michel

3. Brantley, Susan

4. Brownawell, Bruce

5. Chambers, Janice

6. Dzombak, David A.

7. Edstrom, Robert

8. Faustman, Elaine M.

9. Finkel, Dr. Madelon L.

10. Henretig, Fred M.,

11. Robert Howarth

12. Anthony Ingraffea

13. Lyman McDonald

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy,

17. Dr. Ingrid Padilla

18. Jerome Paulson

19. Joseph N. Ryan

20. Daniel Schlenk

21. Dr. Karen Swackhamer

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

Obviously any perceived bias on the part of individuals or committees damages the scientific credibility of the EPA. Individuals or corporations which have a financial stake in the results of any decisions to regulate the industry cannot be considered unbiased. By law, EPA committees must be composed in a manner which ensures that industry bias is publicly disclosed, minimized, and eliminated if possible. My vote would be to eliminate those who have a clear bias related to corporate income or university research grants from companies related to the natural gas industry.

Clearly, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks of hydraulic fracking. They have a financial stake in reporting minimal negative effects of the several thousand toxic chemicals employed in hydraulic fracturing. Furthermore, they have shown cavalier attitudes toward community disruption and air pollution and underplay the longterm issue of withdrawing millions of gallons of water from the hydrological cycle forever.

I urge the EPA to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific
credibility of the SAB and the EPA would be damaged by committees with real or perceived bias.

SAB membership should exclude financially conflicted members as much as possible, and instead be largely composed of scientists who are
able to provide a fair and complete review of all relevant data or issues. Industry representatives with specific knowledge or expertise can be invited to address the committee during public meetings.

The following 67 are all unacceptable candidates for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise,
and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have
complete conflict of interest disclosures in their bios.

Please REJECT the nominations of the following 67 UNACCEPTABLE candidates. It is impossible to read their biographies without recognizing that they totally in thrall to industry; their careers would end should they oppose the most lenient possible regulation of hydraulic fracturing.

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, “These (state regulatory agencies) have field inspectors, rules and regulations, if you’re a bad actor, not doing a good job, they’re going to find you. It’s something people are fearful of, but it’s not a reality.” And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
4. Stephen Bachu
5. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
6. Baldassare, Fred. Conflict of interest.
7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner—financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley – Conflict of interest: consults regularly with industry per her cv.

13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman
(http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John—WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking
: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute no, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

27. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
28. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
29. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips
34. George E. King, Apache Corp.
35. Gary Klecka, worked for Dow for most of this career; now an independent consultant
36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
37. Steven Lewis, Exxon-Mobil for most of his career.
38. Abby Li, most of her career at Monsanto
39. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
40. Keith Wilson Lynch
41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
45. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties

to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.

47. Nygaard, KJ, Exxon Mobil

48. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.

49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.

50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.

51. Thomas Parkerton, Exxon Mobil entire career

52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with Eagle One Green Solutions, LLC described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having "developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+). In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."

53. Richard Phillips, Exxon Mobil since 1988

54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate: epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.

55. Danny Reible

56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective. (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/) This shows lack of expertise and understanding of existing evidence to the contrary. The candidate also states that "gas as better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing lack of either knowledge or objectivity, since the science increasingly suggests otherwise in terms of

lifecycle greenhouse gas emissions.
57. Bert Smith, Chesapeake
58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)
59. Joseph Patrick Smith, Exxon
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61. Paul Street, Nalco chemical company
62. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
63. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
64. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
65. Sanjay Vittale, Shell Oil
66. Douglas Wyatt, URS Corporation—conflict of interest
67. Victor Ziegler, Occidental Petroleum

Thank you for encouraging the public to comment on these nominations. It is regrettable less than a third of the nominees can demonstrate both expertise and a clear lack of industry ties or bias. Please keep the EPA's record/reputation clean and DO NOT seat the 67 on this critical committee.

Nancy Sullivan
Cincinnati, OH

From: "Philip Sweet"
To: Edward Hanlon/DC/USEPA/US@EPA
Cc: "Philip Sweet"
Date: 12/05/2012 03:58 PM
Subject: USEPA Science Advisory Board / Request

Ed Hanlon
USEPA Science Advisory Board (1400)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

Dear Mr. Hanlon, After just now receiving an urgent e-mail from Christine Borello For Stark Concerned Citizens Ohio.
I feel compelled to make you aware that the formation of a public accepted scientific advisory board would be an enormous positive step forward in determining the scientific health / social impacts of Horizontal / Fracking, but only if your board would include and accept accredited expert members of our scientific community. Putting politics aside and presenting peer reviewed credible evidence would surely help to publicize Fracking's now detrimental impacts to our environment and health and allow your EPA to initiate responsible policy and enforcement.

I fully endorse Christine Borello's request that Dr. Marvin Resnikoff's name, also Dr. Tony Ingraffea be selected as board members and ask you give them full consideration for nomination?

In addition, I would also ask that Mr. James Northrup be added to your list of candidates. Mr. Northrup former retired executive in the gas industry is an expert on water contamination and casing leaks. He is an expert on health impacts associated with chemicals and pathways of exposure that the development of shale gas plays.
Thank you
Kind regards
Philip F. Sweet
716-833-0961
Gbfa/mpfa
.....
Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov

Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460

Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

From: crborello
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/03/2012 07:52 PM
Subject: Where should we send comments?

From: Nick Teti
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/16/2012 06:30 PM
Subject: US EPA's Science Advisory Board panel - comment

Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office

Dear Mr. Hanlon,

We are running out of time to control the release of carbons into our atmosphere if we are to avert disastrous temperature rises far exceeding the 2 degree C limit defined by the scientific community worldwide. The CO2 we are releasing today will be with us and affecting our planet for the next 20,000 years. The EPA has allowed itself to be used as a facilitator for the fossil fuel industry for far too long. We need to start looking at the science not the economics of climate change. The earth does not care about job creation, the national debt, or any other policy governing our social order. It has its own rules and laws. It only responds to the record 7 billion tons of carbon per year that we pour into the air. You cannot haggle with a melting ice cap, you can't compromise with rising sea levels, you can't cut a deal with the greenhouse gases that are now boiling out of the Actic Sea and the surrounding tundra. You cut the carbon emissions below 350 ppm or you watch the
Ganges,
the Yang Tze, and many of our own major rivers run dry; you see Miami, New Orleans, Los Angeles, and Manhattan disappear under the sea; and you reduce the oceans to warm acidic broths incapable of sustaining anything but soft-bodied invertebrates, jellyfish, and sea worms. If you appoint advisers who do not grasp that the policy decisions they recommend today could be engineering another Permian Extinction in the coming decades then we as a species will step over the abyss. This is one of the most crucial decisions that you will make in your life. Look at the children you love and the future that you will leave to them and their families. Even those who have been entrusted with power and whose positions of privilege often insulate them from the consequences of their decisions will not be able to escape the impacts of short sighted and self-serving policies on the issue of climate change. We all share the same planet and nothing offers greater threat and destruction to the
fabric o
f the social order you control than widespread natural disaster.

**Please consider appointing your committee from the following 26 people,**

**those who clearly show evidence of scientific objectivity and appropriate expertise:**

1. Henry Anderson

2. Boufadel, Michel

3. Susan Brantley

4. Brownawell, Bruce

5. Janice Chambers

6. Dzombak, David A.

7. Edstrom, Robert

8. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

12. Anthony Ingraffea

13. Lyman McDonald statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

17. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18. Jerome Paulson

19. Joseph N. Ryan, U. of Colorado, Boulder

20. Daniel Schlenk

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

The scientific credibility of the EPA is damaged by committees with real or perceived bias

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased greenhouse gas emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.
The following 67 are all unacceptable candidates for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Please **REJECT** the nominations of the following 67 **UNACCEPTABLE** candidates:

1. Stephen Almond, MeadWestvaco
2. W. Kenneth Armagost, Andarko Petroleum
3. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-st ories Dallas, 4-16-12). Regarding statements that there are threats to the

environment, Mr. Arthur stated, "These (state regulatory agencies) have field inspectors, rules and regulations, if you're a bad actor, not doing a good job, they're going to find you. It's something people are fearful of, but it's not a reality." And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)

4. Stephen Bachu
5. E. Scott Bair - conflict of interest with financial ties to industry. Recent funding not listed.
6. Baldassare, Fred. Conflict of interest.
7. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
8. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
9. James Bruckner-financial ties to industry
10. Burnett, David
11. Buscheck, Timothy E
12. Gail Charnley - Conflict of interest: consults regularly with industry per her cv.
13. Corrie Clark
14. Cline, Scott Bradley
15. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
16. Collins, James W
17. Corra, John-WY political conflict of interest
18. Eric Daniels (Chevron)
19. Thomas Davis, CO School of Mines
20. Joseph deGeorge (Merck)
21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East (Halliburton)
23. Economides, Michael (consultant; editor-in-chief Energy Tribune
24. Timothy Ellison (Exxon-Mobil)
25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women -voters-gets-dirt-hydrofracking)
26. Derek Elsworth

http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-p
rofessor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute no, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' ...As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

27. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)
28. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission..." (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
29. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
30. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
33. Jester, Stephen, ConocoPhillips

34. George E. King, Apache Corp.
35. Gary Klecka, worked for Dow for most of this career; now an independent consultant
36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
37. Steven Lewis, Exxon-Mobil for most of his career.
38. Abby Li, most of her career at Monsanto
39. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
40. Keith Wilson Lynch
41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
45. Michael Nickolaus-not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
46. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
47. Nygaard, KJ, Exxon Mobil
48. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
49. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
50. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
51. Thomas Parkerton, Exxon Mobil entire career
52. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with Eagle One Green Solutions, LLC described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having "developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).

In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."

53. Richard Phillips, Exxon Mobil since 1988

54. Laura Plunkett, Integrative Biostrategies, LLC -industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate: epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.

55. Danny Reible

56. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective. (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing /) This shows lack of expertise and understanding of existing evidence to the contrary. The candidate also states that "gas as better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing lack of either knowledge or objectivity, since the science increasingly suggests otherwise in terms of lifecycle greenhouse gas emissions.

57. Bert Smith, Chesapeake

58. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)

59. Joseph Patrick Smith, Exxon

60. Richard K Smith, Nabbors Production Company

61. Paul Street, Nalco chemical company

62. Talib Syed - not a scientist. Production engineer, whole career has been in industry.

63. James John Tintera - not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.

64. Rock Vitale, Environmental Standards, Inc.-not a scientist, works entirely for industry "managing liability". No advanced degree.

65. Sanjay Vittale, Shell Oil

66. Douglas Wyatt, URS Corporation-conflict of interest
67. Victor Ziegler, Occidental Petroleum

From: Theodore Voneida
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/16/2012 02:24 PM
Subject: List of candidates for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:

My name is Theodore J. Voneida, and I live in Kent, Ohio. I have been researching the hydraulic fracturing issue for the past 2 1/2 years, and have lectured extensively against what these giant corporations are doing to our lands and our people from east to west coast. It is difficult, of course, for individuals like myself, and small groups of concerned citizens to counter the tremendous political pressure being exerted by these corporations, including the millions of dollars they are pouring into our legislators' and judges' coffers, especially now, with the recent Supreme Court Citizens United decision.
One of the few options open to us is to correspond with persons like yourself, with the hope that somewhere our voices will be heard. Specifically, I am referring to Federal Register Notice Volume 77, number 162, pp. 50505-06, and the candidates you have proposed for the Hydraulic Fracturing Science Advisory Board. I do not feel that these candidates have the expertise or qualifications to serve as members of this Board.

I do not wish to burden you with yet another long letter related to my concerns, but will simply convey to you the fact that I strongly support the email you recently received from Heather Cantino of Athens, Ohio, as well as the candidates for this Advisory Board that she listed in her correspondence.

Thank you for your consideration of our concerns and requests. Here in Ohio we are presently suffering from the rapacious invasion of our properties by corporations who are after the methane in our Utica Shale formation. The health of many individuals has been severely affected by drinking water which has been contaminated by the toxic chemicals used in the fracking operations. Property values are significantly affected by the proximity of properties to the drill sites. Local jobs provided by these corporations are few and far between; primarily short-term trucking jobs. The companies, understandably, bring their own highly trained drill crews with them as they move about. Our valuable and finite fresh water supplies are being seriously compromised and contaminated. Heather Cantino's correspondence does, in fact, cover most of these issues. Once again, I strongly support her email message to you.

Sincerely,

Theodore J. Voneida, Ph.D.

Professor and *Chairman Emeritus*

Department

of Neurobiology

Northeastern Ohio

Medical University

From: Fred Welty
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 01:33 PM
Subject: Science Advisory Board on Hydraulic Fracturing.

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

**FROM:** Fred Welty, Chardon, Ohio 44024, Geauga Co.

Dear Mr. Hanlon:

Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates based on their scientific expertise, knowledge, experience and ability to be impartial. *Following this list* is a *second list* of those whose appointment I strongly oppose and urge USEPA to reject,

based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

**Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing to result in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest.**

**Please consider appointing your committee from the following 26 people, those who clearly show evidence of scientific objectivity and appropriate expertise:**

1. Henry Anderson

2. Boufadel, Michel

3. Susan Brantley

4. Brownawell, Bruce

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10. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

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13. Lyman McDonald statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

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18. Jerome Paulson

19. Joseph N. Ryan, U. of Colorado, Boulder

20. Daniel Schlenk

21. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

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**The scientific credibility of the EPA is damaged by committees with real or perceived bias**

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA. SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

**By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.**

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," *id.* App. II, § 9(2), is "fairly balanced in terms of points of view represented and the function to be performed," *id.* § 5(b)(2), and does not contain members with inappropriate special interests. *Id.*§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, *then invitations to address the committee during public meetings are appropriate*. **However, individuals with financial conflicts should not be serving as members of the SAB.**

**The following 67 are all unacceptable candidates** for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial *as evidenced in their publications and public speaking*. Many in this list also do *not* have complete conflict of interest disclosures in their bios.

**Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:**

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17. Corra, John—WY political conflict of interest

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19. Thomas Davis, CO School of Mines

20. Joseph deGeorge (Merck)

21. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)

22. Lloyd East (Halliburton)

23. Economides, Michael (consultant; editor-in-chief Energy Tribune

24. Timothy Ellison (Exxon-Mobil)

25. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)

26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water.

You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

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31. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"

32. Ron Hyden, Director of Technology for Halliburton's Production Enhancement

33. Jester, Stephen, ConocoPhillips

34. George E. King, Apache Corp.

35. Gary Klecka, worked for Dow for most of this career; now an independent

consultant

36. Philip Leber “For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products.”

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43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry

44. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.

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54. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad

Her presentations show bias as suggested by financial conflict of interest.

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62. Talib Syed – not a scientist. Production engineer, whole career has been in industry.

63. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.

64. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.

65. Sanjay Vittale, Shell Oil

66. Douglas Wyatt, URS Corporation—conflict of interest

67. Victor Ziegler, Occidental Petroleum

Sincerely,

Fred Welty

Chardon, OH 44024

From: Sasha White
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/17/2012 06:01 PM
Subject: Fracking Advisory Board Comments

Fracking Advisory Board comments.doc

December 17, 2012

**TO:** Ed Hanlon
Designated Federal Officer
EPA Science Advisory Board Staff Office
202-564-2134 (phone/voice mail)
202-565-2098 (fax)
202-564-2221 (SAB main number)
hanlon.edward@epa.gov
Regular mail: USEPA Science Advisory Board (1400R), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460 Office location/Courier Address: USEPA Science Advisory Board, Ronald Reagan Building, 1300 Pennsylvania Avenue, NW, Suite 31150, Washington, D.C. 20004

**RE:** Federal Register Notice Vol 77 Number 162 Pages 50505-50506 and list of candidates announced at Yosemite.epa.gov re public comment period on announced list for Hydraulic Fracturing Science Advisory Board

Dear Mr. Hanlon:

Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I first list 26 names of candidates whom I support in appointment to the SAB for the USEPA Hydraulic Fracturing study, based on their scientific expertise, knowledge, experience and ability to be impartial. Following this list is a *second list* of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise, and/or clear lack of

ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Please consider appointing your committee from the following 26 people who show appropriate expertise and scientific objectivity:

53. Henry Anderson

54. Boufadel, Michel

55. Susan Brantley

56. Brownawell, Bruce

57. Janice Chambers

58. Dzombak, David A.

59. Edstrom, Robert

60. Elaine M. Faustman, Professor Depy.of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

61. Dr. Madelon L. Finkel ,Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

62. Henretig, Fred M., University of Pennsylvania, pediatric toxicologist

63. Robert Howarth

64. Anthony Ingraffea

65. Lyman McDonald statistician and biologist

66. Lisa McKenzie

67. Karlis Muehlenbach

68. Eileen Murphy, Rutgers, toxicologist who has specialty in drinking water contamination

69. Dr. Ingrid Padilla, full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the

Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

70. Jerome Paulson

71. Joseph N. Ryan, U. of Colorado, Boulder

72. Daniel Schlenk

73. Dr. Karen Swackhamer, Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

74. Geoffery Thyne

75. Jeanne Van Briessen

76. Avner Vengosh

77. Perry R. Walker

78. Paul Westerhoff

Given the record of deep shale drilling and high pressure horizontal hydraulic fracturing links to water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans and animals, and the overwhelming environmental and carbon footprints of this industrial process, it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

I respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this vital mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, industry-employed scientists and scientists working for industry-supported research institutions tend to downplay risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This SCIENTIFIC review board must be composed in a manner that ensures that this extensive bias does not influence panel decisions.

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues. If industry representatives have

specific knowledge or expertise of value to the deliberations of a committee, *then invitations to address the committee during public meetings are appropriate.* **However, individuals with financial conflicts should not be serving as members of the SAB.**

**The following 67 are all unacceptable candidates** for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial *as evidenced in their publications and public speaking*. Many in this list also do *not* have complete conflict of interest disclosures in their bios.

Please REJECT the nominations of the following 67 UNACCEPTABLE candidates:

135. Stephen Almond, MeadWestvaco
136. W. Kenneth Armagost, Andarko Petroleum
137. Dan Arthur: ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories Dallas, 4-16-12). Regarding statements that there are threats to the environment, Mr. Arthur stated, "These (state regulatory agencies) have field inspectors, rules and regulations, if you're a bad actor, not doing a good job, they're going to find you. It's something people are fearful of, but it's not a reality." And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)
138. Stephen Bachu
139. E. Scott Bair – conflict of interest with financial ties to industry. Recent funding not listed.
140. Baldassare, Fred. Conflict of interest.
141. Terence Barry, Aquamost, conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
142. Bratton, Thomas R. Schlumberger Technology. Conflict of interest.
143. James Bruckner—financial ties to industry
144. Burnett, David
145. Buscheck, Timothy E
146. Gail Charnley. Conflict of interest: consults regularly with industry per her cv. According to the Washington Post: "In 2006, for example, she wrote an op-ed article in the St. Louis Post-Dispatch opposing tougher restrictions on power-plant emissions in neighboring Illinois on behalf of Americans for Balanced Energy Choices, a nonprofit group funded by utilities, railroads and mining companies. In 2004, she and

a colleague wrote a letter to the technical journal *Environmental Health Perspectives* about a study on human testing of pesticides that they had co-authored without disclosing that it had been funded partly by pesticide makers. The journal's editor ran a disclosure after Charnley and her colleague disputed having a conflict of interest."

147. Corrie Clark
148. Cline, Scott Bradley
149. Nancy Pees Coleman (http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas NancyColeman-8-7-12.pdf)
150. Collins, James W
151. Corra, John—WY political conflict of interest
152. Eric Daniels (Chevron)
153. Thomas Davis, CO School of Mines
154. Joseph deGeorge (Merck)
155. Dunn-Norman, Shari (current and past funding from oil companies and Am. Petroleum Inst.)
156. Lloyd East (Halliburton)
157. Economides, Michael (consultant; editor-in-chief Energy Tribune
158. Timothy Ellison (Exxon-Mobil)
159. Stuart Ellsworth (Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking)
160. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking: "One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful. 'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute *no*, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' …As for abandoned wells causing contamination, he stressed good management. 'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

    All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.
161. James Erb: conflict of interest--consultant to oil and gas industry (NC presentation: ncleg.net/documentsites/committees/EPI-

LRC/Meetings/2012%20January%2018/Presentations%20and%20Handouts/Erb%20--%20Written%20Comments%20before%20the%20the%20Committee.pdf)

162. Fassett, Gordon, HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission…" (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
163. Fontana, John V., Vista GeoScience LLC conflict of interest. Not a scientist. Has a bachelor's in geology, "entire career has been in the private service and consulting industry."
164. Hayes, Thomas D., Gas Technology Institute E&P Center: extensive financial ties to industry
165. Hufford, Walter R., Talisman Energy USA 30 years' experience in "energy industry"
166. Ron Hyden, Director of Technology for Halliburton's Production Enhancement
167. Jester, Stephen, ConocoPhillips
168. George E. King, Apache Corp.
169. Gary Klecka, worked for Dow for most of this career; now an independent consultant
170. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
171. Steven Lewis, Exxon-Mobil for most of his career.
172. Abby Li, most of her career at Monsanto
173. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
174. Keith Wilson Lynch
175. Dean Malouta (most of his career with Shell)
176. Steve Mamerow (Pioneer Natural Resources)
177. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
178. Daniel Moos, Baker Hughes: Baker Hughes Incorporated (NYSE: BHI) creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
179. Michael Nickolaus—not a scientist, works for industry-funded (American Petroleum Institute among others) organization.
180. Jean-Philippe Nicot: funding not disclosed, extensive historic ties to industry, has touted economic benefit to municipalities of selling water while not distinguishing between water use and water consumption.
181. Nygaard, KJ, Exxon Mobil
182. Jon Olson funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.

183. John Oneacre, Ground Water Solutions, providing "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies.
184. Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydrogeological consulting services to private industry with emphasis on environmental studies and litigation support work. Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
185. Thomas Parkerton, Exxon Mobil entire career
186. Deepak Patil, not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with **Eagle One Green Solutions, LLC** described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having **"developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+).** In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."
187. Richard Phillips, Exxon Mobil since 1988
188. Laura Plunkett, Integrative Biostrategies, LLC –industry consultant, conflict of interest. Presentation on "adequacy" of current regulations, deemed protection of children adequate:
epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.
189. Danny Reible
190. James Saiers states he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective (environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing/), revealing his lack of expertise and understanding of the existing substantive evidence to the contrary. The candidate also states that "gas is better than coal" lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing his lack of either knowledge or objectivity, since the science on lifecycle greenhouse gas emissions increasingly suggests otherwise.
191. Bert Smith, Chesapeake
192. Donald Siegel (discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also

disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives)

193. Joseph Patrick Smith, Exxon
194. Richard K Smith, Nabbors Production Company
195. Paul Street, Nalco chemical company
196. Talib Syed – not a scientist. Production engineer, whole career has been in industry.
197. James John Tintera – not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
198. Rock Vitale, Environmental Standards, Inc.—not a scientist, works entirely for industry "managing liability". No advanced degree.
199. Sanjay Vittale, Shell Oil
200. Douglas Wyatt, URS Corporation—conflict of interest
201. Victor Ziegler, Occidental Petroleum

Sincerely,
Sasha White
Athens, Ohio 45701

From: Jan Williams
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 12/19/2012 06:52 PM
Subject: This is very important to me.

Dear Mr. Hanlon:

Please accept and convey the following as my comments on the nomination of candidates for possible inclusion on the Science Advisory Board on Hydraulic Fracturing.

I am writing to support the appointment of the following 26 names to the SAB for the USEPA Hydraulic Fracturing study.

Per USEPA guidelines and criteria, I support these 26 candidates named in the 1st list based on their scientific expertise, knowledge, experience and ability to be impartial. Following this list is a 2nd list of those whose appointment I strongly oppose and urge USEPA to reject, based on USEPA criteria and either their direct conflicts of interest, lack of scientific expertise,
and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

Given the empirically proven record of these industrial processes—deep shale drilling and high pressure horizontal hydraulic fracturing results in water contamination, air pollution, increased ghg emissions, community disruption, illnesses, and deaths of humans, flora and fauna, and the overwhelming environmental and carbon footprints—it is essential that federal regulatory efforts be painstakingly clear of industry bias and conflicts of interest. The scientific credibility of the EPA is damaged by committees with real or perceived bias

The following is my 1st list: that of those persons I am suggesting, persons whose actions have evinced scientific objectivity and appropriate expertise.

Please consider appointing your committee from the following 26 people:

1. Henry Anderson

2. Boufadel, Michel

3. Susan Brantley

4. Brownawell, Bruce

5. Janice Chambers

6. Dzombak, David A.

7. Edstrom, Robert

8. Elaine M. Faustman - Professor Depy. of Environmental and Occupational Health Sciences and Director of the Institute for Risk Analysis and Risk Communication in the School of Public Health and Community Medicine at the University of Washington

9. Dr. Madelon L. Finkel - Professor of Clinical Public Health and Director of the Office of Global Health at the Weill Medical College, Cornell University

10. Dr. Henretig, Fred M. - University of Pennsylvania, pediatric toxicologist

11. Robert Howarth

12. Dr. Anthony Ingraffea

13. Dr. Lyman McDonald - statistician and biologist

14. Lisa McKenzie

15. Karlis Muehlenbach

16. Dr. Eileen Murphy - Rutgers, toxicologist who has specialty in drinking water contamination

17. Dr. Ingrid Padilla - full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering Laboratory (EEL) at the University of Puerto Rico, Mayagüez

18. Jerome Paulson

19. Joseph N. Ryan - U. of Colorado, Boulder

20. Daniel Schlenk

21. Dr. Karen Swackhamer - Professor of Science, Technology, and Public Policy in the Hubert H, Humphrey School of Public Affairs, and Co-Director of the University's Water Resources Center.

22. Geoffery Thyne

23. Jeanne Van Briessen

24. Avner Vengosh

25. Perry R. Walker

26. Paul Westerhoff

To repeat: it is essential that federal research efforts be painstakingly clear of industry bias and conflicts of interest.

Further, I would respectfully remind USEPA of its professional and legal duty to select board members who adequately represent the protection of public health and the environment, consistent with the mission of EPA. The Agency cannot accomplish this cornerstone mission if its regulatory priorities and health concerns are dictated by people who have a financial stake in encouraging EPA to do as little as possible to regulate their products.

On the whole, it is in the interest of all industry-employed scientists and scientists working for industry-supported research institutions to downplay the summary risks and effects of toxic chemicals, community disruption, air pollution (including ghg emissions) and water consumption. This composition of this SCIENTIFIC review board must ensure that this extensive bias does not influence panel decisions.

The mission of the SAB is to provide credible and independent scientific analysis and advice to government. The Board cannot accomplish this vital mission if its objectives and deliberations reflect strong bias. Committees whose members have conflicts of interest or a strong bias toward the perspective of regulated industries undermine the credibility of the EPA.
SAB should make strong efforts to protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the SAB and the EPA is damaged by committees with real or perceived bias.

By law, EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals, including at least one non-federal employee, which provides collective advice or recommendations to the agency. 5 U.S.C. App. II, § 3(2). When an agency seeks to obtain such advice or recommendations, it must ensure the advisory committee is "in the public interest," id. App. II, §
9(2), is "fairly balanced in terms of points of view represented and the function to be performed," id. § 5(b)(2), and does not contain members with inappropriate special interests. Id.§ 5(b)(3).

Committee membership should exclude financially conflicted members as much as possible, so that committees are largely composed of scientists who are able to provide a fair and complete review of all relevant data or issues.

If industry representatives have specific knowledge or expertise of value to the deliberations of a committee, then invitations to address the committee during public meetings are appropriate. However, individuals with financial conflicts should not be serving as members of the SAB.

The following 67 are all unacceptable candidates for inclusion on the SAB based either on direct conflicts of interest, lack of scientific expertise, and/or clear lack of ability to be impartial as evidenced in their publications and public speaking. Many in this list also do not have complete conflict of interest disclosures in their bios.

My 2nd list is of 67 UNACCEPTABLE candidates. Please REJECT the nominations of the following persons:

1. Stephen Almond - MeadWestvaco

2. W. Kenneth Armagost - Andarko Petroleum

3. Dan Arthur - ALL Consulting. Clear conflict of interest, as Mr. Arthur works completely with and for industry. His inability to be unbiased and accept the emerging science and record of spills and contamination is also revealed, in quotes in a recent (4-16-12) Dallas Examiner newspaper article (examiner.com/article/rival-energy-interests-funding-false-fracking-scare-stories.

Regarding statements that there are threats to the environment, Mr. Arthur stated:

"These (state regulatory agencies) have field inspectors, rules and regulations, if you're a bad actor, not doing a good job, they're going to find you. It's something people are fearful of, but it's not a reality."
And from PR Newswire, "The report finds that B.C. and Alberta, along with other provinces in Canada, have regulations in place to protect the environment, water and human health" comments Dan Arthur, lead researcher [of the report , which was funded by Canadian petroleum associations] and President of ALL Consulting. "This includes regulatory requirements for surface casing, cementing, groundwater protection and pressure testing. Although no two shale plays are alike, experience and continued research have improved the effectiveness of the fracturing process and allowed the use of fewer, and more environmentally safe, ingredients in the fracturing process.". (http://s.tt/1jbFy)

4. Stephen Bachu
5. E. Scott Bair - Conflict of interest with financial ties to industry. Recent funding not

listed.

6. Fred Baldassare - Conflict of interest.
7. Terence Barry Aquamost - Conflict of interest: manufactures and sells an advanced water purification device used to remediate wastewater from hydraulic fracturing operations
8. Thomas R. Bratton, Schlumberger Technology - Conflict of interest.
9. James Bruckner - financial ties to industry
10. David Burnett
11. Timothy E. Buscheck
12. Gail Charnley - Conflict of interest: consults regularly with industry per her cv.
13. Corrie Clark
14. Scott Bradley Cline
15. Nancy Pees Coleman - Conflict of interest: http://nemc.us/docs/2012/presentations/Tue-PM-ShaleGas-NancyColeman-8-7-12.pdf
16. James W Collins
17. John Corra - WY political conflict of interest
18. Eric Daniels - Chevron
19. Thomas Davis - CO School of Mines
20. Joseph deGeorge - Merck
21. Shari Dunn-Norman - current and past funding from oil companies and Am. Petroleum Inst.)
22. Lloyd East - Halliburton
23. Michael Economides - consultant; editor-in-chief Energy Tribune
24. Timothy Ellison - Exxon-Mobil
25. Stuart Ellsworth - Colorado Gas Commission and apologist for industry: http://www.journal-advocate.com/sterling-local_news/ci_22022348/league-women-voters-gets-dirt-hydrofracking
26. Derek Elsworth http://www.sciencewa.net.au/topics/industry-a-resources/item/1429-visiting-professor-weighs-in-on-fracking:

"One of these concerns [with deep-shale drilling and high-volume horizontal hydraulic fracturing] is groundwater contamination from fracking fluid, which Dr Elsworth regarded as doubtful.

'Certainly you're making pathways in the deep strata that didn't previously exist, but those are maybe a couple of kilometres away from your drinking water. You can't say absolutely what the effects will be, but you can hazard a guess at connections you develop. You can certainly measure for them, looking at flow rates, permeability, tracers and how fast tracers move. This isn't an absolute no, but it's likely you won't develop connections between these because you get intervening beds of low permeability that don't allow transmission.' ...

As for abandoned wells causing contamination, he stressed good management.

'Well bores have been used in petroleum industry for the last hundred years, and if you know where they are and you manage and build them properly they can last for a long period of time. If we design repositories for radioactive waste disposal, it seems to me we can have some certainty we can design things for hundreds of years.'"

All of these statements by the candidate are contradicted by experts in the industry itself as well as growing scientific and field data. These statements indicate the candidate's inability to be unbiased and evaluate scientific data impartially. His advocacy of wells that merely last "hundreds of years" is another indication of the candidate's lack of inclination to evaluate this technology's ability to be protective of water and human health for future generations as USEPA's mandate requires.

27. James Erb - Conflict of interest. Consultant to oil and gas industry.
NC presentation:
ncleg.net/documentsites/committees/EPI-LRC/Meetings/2012 January 18/Presentations and Handouts/Erb -- Written Comments before the the Committee.pdf)
28. Fassett, Gordon - HDR Engineering, Inc. Not a scientist. A "water rights" specialist, who "after leaving state government, was appointed in 2002 by President Bush to be the federal representative and chairman of the Red River Compact Commission..." (hdrinc.com) Does not have water protection for the public good as a value. Bias inappropriate to this SAB.
29. John V. Fontana - Conflict of interest. Vista GeoScience LLC. Not a scientist. Has an undergraduate degree in geology, "entire career has been in the private service and consulting industry."
30. Thomas D. Hayes - Gas Technology Institute E&P Center. Has extensive financial ties to industry
31. Walter R. Hufford - Talisman Energy USA. Has 30 years' experience in "energy industry."
32. Ron Hyden - Director of Technology for Halliburton's Production Enhancement.
33. Jester, Stephen - ConocoPhillips
34. George E. King - Apache Corp.
35. Gary Klecka - worked for Dow for most of this career. Now an independent consultant.
36. Philip Leber "For 20+ years of his career, he was employed by producers of commodity chemicals, pesticides, lubricants, and polymeric products."
37. Steven Lewis, Exxon-Mobil for most of his career.
38. Abby Li, most of her career at Monsanto
39. Sean Lieske, CO, believes regulations are adequate in spite of extensive contamination of CO water supplies by fracking (Aurora CO Sentinel 10-27-11, All's Not Well)
40. Keith Wilson Lynch
41. Dean Malouta (most of his career with Shell)
42. Steve Mamerow (Pioneer Natural Resources)
43. Carl T. Montgomery, NSI Technologies works for industry, paid promoter of industry
44. Daniel Moos - Baker Hughes Incorporated (NYSE: BHI):
Creates value from oil and gas reservoirs with high-performance drilling, evaluation, completions and production technology and services, integrated operations and reservoir consulting. Our solutions are designed to lower costs, reduce risk or improve productivity for the global oil and gas industry.
45. Michael Nickolaus - Not a scientist. Works for industry-funded organization: American Petroleum Institute (among others).
46. Jean-Philippe Nicot - Funding not disclosed. Extensive historic ties to industry. Has

touted economic benefit to municipalities of selling water, while not distinguishing between water use and water consumption.
47. KJ Nygaard - Exxon Mobil
48. Jon Olson - Funding from oil and gas companies' consortium, Shell, and Exxon Mobil. Career has been to promote hydraulic fracturing.
49. John Oneacre - Employee of Ground Water Solutions, providing: "consulting services to private industry." Clients include American Petroleum Institute, Conoco Phillips, Total, and dozens of other fossil fuel production companies. 50.
Mr. Oneacre is President of Ground Water Solutions, Ltd. (GWS) and provides hydro-geological consulting services to private industry with emphasis on environmental studies and litigation support work.
Clients from a broad spectrum include the solid waste industry, petrochemical industry, chemical industry, insurance industry, waste-to-energy industry, and oil and gas industry.
51. Thomas Parkerton - Exxon Mobil entire career
52. Deepak Patil - not a scientist, career has been for multinational corporations and as consultant to industry. Designs chemicals. Clear conflict of interest in current employment with Eagle One Green Solutions, LLC.
Described in the Marcellus Shale Coalition exposition program list of sponsors (sgicc.org/technology-showcase-sponsors.html) as having:
"developed a treatment for recycling hydraulic fracturing waters using ferrate (Fe6+). In a single dose, Fe6+ can simultaneously perform as an oxidant, coagulant, anti-foulant, disinfectant, and deodorant; and it reduces the formation of scale-causing metals, and removes compounds imparting color. Fe6+ has been used to achieve a total kill of sulfate reducing bacteria and acid producing bacteria in flowback waters, and significantly reduced soluble barium, calcium, iron, manganese, phosphorous, silicon and strontium in production waters. Flowback and produced waters treated with Fe6+ can be wholly recycled and reused for well site-completion operations."

53. Richard Phillips - Employee of Exxon Mobil since 1988
54. Laura Plunkett - Integrative Biostrategies, LLC. An industry consultant with a clear conflict of interest. Known for presentation on "adequacy" of current regulations, whereby the protection of children was in fact deemed adequate:
epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=3f513e57-b2ec-43b8-abe7-d1991ccc92ad
Her presentations show bias as suggested by financial conflict of interest.
55. Danny Reible
56. James Saiers - On record as stating that he believes intervening rock will/does protect water from contamination and cites already "better casing standards" as possibly being adequately protective:
environment.yale.edu/news/article/yale-panel-to-debate-hydraulic-fracturing
This demonstrates a lack of expertise and understanding of existing evidence to the contrary. The candidate also states that "gas is better than coal"
lubbockonline.com/national-news/2012-09-22/global-protests-planned-over-gas-drilling-process#.UMrNpHPjlzc, revealing lack of both knowledge and objectivity, since the science increasingly suggests otherwise in terms of lifecycle greenhouse gas emissions.

57. Bert Smith - Employed by Chesapeake Energy
58. Donald Siegel - discusses how drilling and recovery can be done safely without impacts to humans or ecosystems if adequate safeguards are employed throughout the process. This shows a clear bias, since the science is not out to show it can be done safely. It is not being done safely so far. Siegel claims gas is clean energy: syracuse.com/news/index.ssf/2010/05/some_scientists_sat_hydrofrack.html), also disclosing bias, since there is growing science to show it is not clean (from air pollution, ghg emission, and climate crisis perspectives).
59. Joseph Patrick Smith - Exxon
60. Richard K Smith - Nabbors Production Company
61. Paul Street - Nalco chemical company
62. Talib Syed - Not a scientist. A production engineer whose whole career has been in industry.
63. James John Tintera - Not a scientist (no PhD.) but a private consultant to industry with a background in regulation. Conflict of interest.
64. Rock Vitale - Environmental Standards, Inc. Not a scientist, works entirely for industry "managing liability." No advanced degree.
65. Sanjay Vittale - Employed by Shell Oil
66. Douglas Wyatt - URS Corporation. Conflict of interest
67. Victor Ziegler - Employed by Occidental Petroleum

Thank you for your attention,

Jan Williams