

From: Air Quality Petitioners of Sublette County
Subject: Response to Your Letter of Sept. 12, 2007
Subject: Rebuttal to Your Sept. 12, 2007 Letter

Oct 30, 2007

Dear Mr. Roberts,

On May 6, 2007, the citizens of Sublette County Wyoming sent to EPA-Denver a petition listing several issues we wished to see EPA pursue more aggressively with regard to the impacts of gas development in the region. After a long period of some 16 weeks, we received your reply which proved to be very disappointing and discouraging. On behalf of the petition signers, I have studied your reply and am compelled to provide a rebuttal in their name and my own.

The first point I wish to make is that I am very disappointed that the petition was ultimately passed down through the chain of command to the individual who drafted the reply. I learned of this when I called EPA to inquire as to the long delay in response and was passed off to three successive layers of supervisory staff. I know the individual who drafted the reply because of our mutual membership on the Air Quality Task Group serving the Pinedale Anticline Working Group (PAWG). I therefore am familiar with his lines of reasoning regarding the problems up here and I consider your handoff to him to be a denial of a higher-level review regarding our stated concerns. Furthermore, I have an instinct, born of our association and resulting respect for him, that he has a more critical set of thoughts about our plight but cannot express them in clear text. The result appears to have been the release of a letter of reply to us that was scrubbed by his supervisors for political correctness...the latter characteristic being pervasive throughout government under the Bush/Cheney administration. I will now take on your letter point-by-point.

In paragraph three you make the perfunctory statement that you "...do not agree with [our] statement about dispersion modeling;" First, your dismissive statement that you do not agree is unacceptable. You are obligated to provide detailed rationale for why you hold such faith in modeling. I have now participated in an advanced course regarding CALPUFF and closely questioned the instructor about its sensitivity to input data. Going into the course, I had strong suspicions about how CALPUFF is being applied in Sublette County and I came away reinforced in those suspicions. Specifically, the course made clear and even stated explicitly that crucial input to the code is accurate, up-to-date surface and upper level wind data. That has been missing from the very beginning here. Initial modeling of the Jonah used 1995 data and the PAPA used an average of 1999 through 2003 data. My own research of four years demonstrates that wind data from so long past is marginally relevant at best. Specifically, it is highly unlikely that the CALMET wind fields produced from that data accurately resembles current reality.

Furthermore, I allege that the emissions inventory being fed into the code is seriously flawed because it itself is modeled. I have long challenged the validity of the calculated emissions approach. Indeed, no one, EPA nor DEQ persons I have pressed on this have offered me any tangible proof that these calculational methods (lets call them what they are....models) have been validated in our altitude and climate regime. I challenge you to prove to us that this approach addresses certain engine combustion inefficiencies that certainly differ between the factory floor (probably at or close to sea level) and our 7,500 to 9,000 ft elevations. Additionally, the same can be asserted with regard to the many combustion sources such as dehydrator heaters, VOC combustors, and completion flares. Furthermore, my own field research on dehydrator heaters has proven that no two burn with the same efficiency and rarely if at all do the operators maintain initial combustion adjustment established at the time of installation. Finally, I doubt that you or the operators can demonstrate that the drill rig engines operating here are maintained at optimum tune which in turn has direct influence upon combustion efficiency. Thus, your total reliance upon dispersion modeling is a highly dubious reliance upon what is in truth, modeling based upon modeling. Discounting outside causes, the visibility degradation here already attests to the folly of this approach.

You state that you "...know of no substitute for dispersion modeling to predict the future effects of emissions into the air." Permit me to suggest one....actual measurement of emission at the stacks of rig engines, dehydrator heaters, and VOC combustors. I came away from the CALPUFF training mentioned above with a high respect for its capabilities and its Achilles heel. The latter is its requirement for accurate input. I submit that you must expend some real effort at validating the input data. Regarding meteorological information, use your position to establish an upper level radiosonde balloon release facility at the Pinedale airport and rely less on MM5. Regarding emissions inventory, mandate that operators fund an instrumented emissions measurement program that targets a statistically representative set of rig engines, dehydrator heaters, and VOC combustors. For rig engines, the measurement program must span the spectrum of operating conditions in terms of load factor, run time under various load factors and total accumulated run time. Such data should be reported to WYO-DEQ at least monthly and further dispersion modeling placed on hold until a sufficiently representative data set has been accumulated for use.

Your statements that "...NEPA requires federal agencies to estimate the potential effects of reasonable foreseeable future development on the environment" and "...the problem...was that the rate of development was underestimated" stand out because of what you do not say. There is NO definition of "reasonably foreseeable." There is NO definition of consequences for failure of the controlling agency (BLM) should it grossly miss the estimate, or not even try. To illustrate, BLM stated in its PAPA DEIS:

"Since the PAPA ROD (BLM, 2000b) was issued, natural gas development within the PAPA has occurred at a faster pace than was analyzed in the PAPA DEIS (BLM, 1999a)." [Sections 2.3.1.3, 3.11.2]

"Restrictions on numbers of drilling rigs, present at any time within the PAPA were not carried forward from the PAPA DEIS (BLM, 1999a) and the PAPA FEIS (BLM,

2000a) to the PAPA SOD (BLM, 2000b). BLM concluded that limiting the number of rigs (on federal and nonfederal lands and minerals, combined) would be **difficult to manage**” (*emphasis my own*). [Section 2.3.3]

“Subsequent NEPA analysis (BLM, 2004a) disclosed that the NOx emissions from all sources in the PAPA had exceeded the 693.50 tpy analysis threshold specified in the PAPA ROD, mostly due to the increased number of drilling rigs.” [Section 2.3.1.3]

Finally, although this is not your failure, NEPA only mandates the estimate requirement but fails to spell out consequences for serious underestimates. BLM has cynically exploited this weakness to make superficial assurances of its intent to protect the environment, knowing full well it will face no penalties for non-performance. Thus, EPA-Region 8 becomes the ultimate line of defense of the environment against such non-performance, an obligation it is seriously failing to fulfill.

In paragraph three you state that “...BLM has proposed to mitigate...increases in the current EIS” and in paragraph four, you state that “...the current DEIS [does not] use 2005 data as a reference or background data.” Allow me to quote from Section 4.9.5, “Alternative Impact Mitigation,” from the DEIS:

Alternative C:

“...*modeling* analysis was based on year-2005 actual emissions.”

“Within one year of issuance of the ROD, operators would be required to show a reduction in *modeled* visibility impacts to 2005 actual impact levels. This *modeling* would be based upon *modeling* of year-2009 proposed action emissions mitigated to 2005 actual emission levels-a prediction of 40 days of visibility impairment over 1.0 dv at Bridger Wilderness Area.

The reduction of *modeled* air quality impacts to 2005 levels would effectively mitigate the potential increase in visibility impacts for the Proposed Action Alternative.

I have had a conversation with a USFS scientist who cited his agency’s consternation with these passages. He told of receiving “clarification” from BLM to the effect that the 2005 references were calculated (i.e., modeled) levels, trying to infer that there is somehow a disconnect between what it wrote and what it meant. To the citizens of the area, this and the content of the DEIS is pure fabrication designed to confound and confuse the public about its real intentions for future development.

In paragraph five you cite the “ultimate goal of the regional haze SIP will be to achieve visibility representative of natural background conditions and not conditions in 2005.” This is hard to divine in light of the quoted content of the DEIS. Equally disturbing is that I am told the definition of the term “ultimately” is year-2064! This condemns three human generations to viewing the region through natural-gas-development-generated haze. It may indeed be impossible to bring us back to pre-2005 levels in less than as many years as the situation here has been developing but EPA-Region 8 can and should do better. Here I restate our objections to 2005. The DEIS proposes to mitigate on the basis of modeled reductions from 2005; we/I insist on mitigation to 20% of 2005 actual

emissions as compiled by the DEQ monitoring system. Why? Because the 20% value would be based upon empirical data that would take us back to about year-2000 conditions, whereas the DEIS approach is based upon un-validated modeled assumptions fed into the dispersion model.

Finally, in your last paragraph you state “The DEIS states that reducing the pace of development may be used as a mitigation tool if other means fail to mitigate the modeled impacts.” Again you omit the obvious: who will make the determination of “failure,” how will failure be determined....modeling? How will reductions be imposed on each operator? How soon? For how long? I have learned from half a decade of hard experience with BLM that it is adept at invoking lack of specifics in statutory guidance as an escape clause for continuing with business as usual. And you insure that outcome with the buck-passing comment “BLM is the lead agency with the authority and responsibility to issue...mitigation requirements.”

I/we petition signers anticipate that EPA-Region 8 managers will continue to “dig in” as their response to this letter. No-action is easier than potentially controversial action. We will not be offended if you elect to not respond to this letter because frankly, if it is again dismissive and presents unsupported assertions as did your first letter, we will be compelled to challenge yet again. This will lead to an endless cycle of rebuttal and counter-rebuttal which you and I/we have little time to burn in such a futile contest.

Ronald P Walker
for
Air Quality Petitioners
of
Sublette County