

WYOMING AIR QUALITY ADVISORY BOARD MEETING
JULY 10, 2006 AT 1:00 PM
JULY 11, 2006 AT 8:00 AM
Best Western Tower West Lodge
109 North Hwy 14 & 16
Gillette WY

Board Members Present: Ronn Smith, Darrell Walker, Gerald (Joe) Reichardt and Jeff Snider

Others Present: David A. Finley, Administrator, Air Quality Division (7/10-11/06)
Nancy Vehr, Assistant Attorney General (7/10-11/06)
Tina Anderson, Air Quality Division (7/10-11/06)
Cara Keslar, Air Quality Division (7/10-11/06)
Mike Stoll, Air Quality Division (7/10-11/06)
Lee Gribovicz, Air Quality Division (7/10-11/06)
Stewart Griner, Air Quality Division (7/10-11/06)
Mike Warren, Air Quality Division (7/11/06)
Lori Simkins, Air Quality Division (7/10-11/06)
Vanessa Buyok, Air Quality Division (7/11/06)
Dallas Wade, Basin Electric Company (7/11/06)
Terry Archbold, Basin Electric Company (7/11/06)
Bob Eriksen, Basin Electric Company (7/11/06)
Tom Stalcup, Consultant (7/11/06)
Marion Loomis, Wyoming Mining Association (7/10-11/06)
Wanda Burget, Powder River Coal (7/10-11/06)
Rose Haroian, Powder River Coal (7/10-11/06)
Beth Goodnough, Western Fuels (7/10-11/06)
Tim Rogers, Black Hills Corporation (7/10-11/06)
Dale Gillespie, PacifiCorp (7/11/06)
Bill Lawson, PacifiCorp (7/11/06)
Heather Bleile, PacifiCorp (7/11/06)
Michael Dahl, General Chemical (Soda Ash) Partners (7/11/06)
Bernadette Hinshaw, PacifiCorp Energy (7/11/06)
Joey Sheeley, Pearl Development (7/11/06)
Lecia Craft, Thunder Basin Coal Company (7/11/06)
Ryan Duysen, RTEA-Cordero Rojo Mine (7/11/06)
Nick Bettas, P&M Coal Mining Company (7/11/06)
Kevin Chartier, IML (7/11/06)

I. CALL TO ORDER

Ronn Smith: The meeting was called to order by Ronn Smith. He introduced himself and introduced Dave Finley (Administrator of the Air Quality Division), Darrell Walker, Joe Reichardt and Jeff Snider.

II. APPROVAL OF MEETING MINUTES FOR JUNE 30, 2005 AND DECEMBER 8, 2005 MEETINGS

There was a motion to approve minutes from the last two meetings, seconded and approved.

III. OLD BUSINESS

A. Staff Activity

Dave Finley: Dave introduced himself to the Board. Previously he had been the Administrator of the Solid and Hazardous Waste Division for longer than he cared to remember. About four months ago John Corra asked if anyone was interested in filling Dan Olson's position. Dave took a weekend to think about it. Dave decided he was excited by the challenges facing the Air Quality Division in the State of Wyoming, particularly in Southwest Wyoming. He had already decided that he either needed to retire or to get new challenges. He got new challenges.

He is amazed at the breadth of interests that are addressed by the Air Quality Division and the importance of those issues. My impression of the Air Quality Staff is that they are the most qualified and competent group of people he has had the pleasure of working with. There is so much technical horsepower in the Air Quality Division, he is astounded by it. He feels that the regulated community is fortunate to be able to work with such a competent and knowledgeable staff because they talk about Air Quality control issues and control technologies. People in the Division understand what they are saying and are able to handle any issues that come up.

The other thing he has found out about the Division is that it works as a very highly effective team. He has worked elsewhere where it's clear that they work as individuals. In the Air Quality Division, it is clear to me that people understand their roles and the roles of other people in the Division and they work very effectively together. When he asks someone to do something (to tackle a particular issue), chances are they respond by saying that we ought to consult this person or that person because they have knowledge or expertise with this particular issue. It's a highly functional team. Programs have been developed over the past decade or two that are very important.

They are generally issuing in the neighborhood of 1,500 permits and waivers in a year. We do have a fairly significant backlog of permitting activity, standing right now at about 600. So we have about 600 applications in process that have not yet been dealt with. We have a very effective Title V operating permit program. We have a very aggressive compliance function. We have state-of-the-art modeling capabilities in our Division. We are running a state-of-the-art monitoring program all over the State of Wyoming. I can not tell you how impressed I am with the caliber and quality of people I am working with right now and I hope you see that as well.

With regard to staffing I wanted to tell you that since the December meeting we have gotten our 07/08 budget approved. We have 11 new positions in the 07/08 supplemental budget so there's some recognition on the part of the legislature that the work in the Air Quality Division is critical and needs to happen in order to be responsive to the increased industrial activity taking place

here. We got two new modelers in Bernie Dailey's New Source Review Program. Two new Title V permitting staff to help reduce the backlog and the time required in obtaining a Title V permit. We'll be getting four new compliance staff which will help us have a higher presence in the field, make our enforcement program more visible and more effective. Two people to supplement our monitoring program, one person to help allow us to be better at managing all of our monitoring data that we collect (we collect a ton of it) and we have a technical person to help John Murrell to maintain our network of ambient monitors across the State. Finally, our last additional person we received in the 07/08 budget is a NEPA position. Darla Potter is our National Environment Policy Act liaison for Federal Land Managers. We have seen an explosion of Federal NEPA projects and actions and we have pledged to become involved in those sooner rather than at the tail end. It's just generating a tremendous amount of workload for our Division.

In addition to the 11 new positions given to us by the legislature (I have to say to you that Dan Olson was instrumental in getting those positions approved), we will be adding two other positions that are funded by industry/DEQ agreements, generally targeted to help us be more effective with natural gas development and production in Southwest Wyoming. One position is a position funded by Questar. That position will move into our Casper permitting arena working for Cynthia Madison. Another staff person will be funded by the Jonah Record of Decision issued by the Bureau of Land Management. That Record of Decision created something called the Jonah Infill Office in Pinedale. That office will help agencies provide a local presence to deal with the impacts that are arising out of the gas development activities at Jonah particularly, but I expect they will also deal with other development activities in that area. The four agencies that are representing that office are the Wyoming Game and Fish, Wyoming State Agriculture, Bureau of Land Management, and Dept. of Environmental Quality. We also received in the 07/08 supplemental budget a general fund appropriation of \$466,000 which is a 2-year appropriation. We expect that appropriation to continue for the next several years. That money is targeted at improving our ability to monitor impacts of Air Quality and to do modeling.

And finally in the fiscal area, we are about to sign a SW Wyoming Funding agreement. This agreement was instituted almost a year ago by John Corra and Dan Olson. It is a mechanism that allows industry to help finance the costs in the SW Wyoming area. When that agreement is signed, we will derive in the neighborhood of \$600,000 per year, again, to be used in the monitoring area.

The Air Quality Division that you will look at over the next two years will be substantially larger than you have seen in the past. We are attempting to put ourselves in a position to be managers of the air resource in Wyoming rather than reacting to permit applications. We are looking to predict impacts from the development impacts on the air and air resources and to take some proactive steps to anticipate those kinds of events. One of them, as an example, is siting a monitoring development area.

We do continue to have problems in the staffing area, particularly in the New Source Review Permit program. We typically try to hire graduates out of college and the average stay is 18 months. We are currently down two staff, which is hurting our need to tackle that backlog. We have a critical need to do better in terms of salary for incoming engineers as well as professional

opportunities for those who are working for us, because right now people are leaving to work for industry to work for a lot more money.

Darrell Walker: Asked about JIO.

Dave Finley: Responded that we are close.

Darrell Walker: Said that it would be nice to have someone from the area in that office.

Dave Finley: Said that they had 20 or so applicants. It's not an entry-level position and even at that, people are having trouble accepting the position at that pay.

Ronn Smith: Asked if Bob Schick had retired.

Dave Finley: Responded that he had.

Ronn Smith: Asked if he had been replaced.

Dave Finley: Indicated that Dan had delayed filling that position. Dave indicated that the scope of responsibilities for that position will be larger than it was previously and that they will be advertising and filling that position. We need to learn how to manage data better, how to look at data, and how to draw conclusions from the data that exists.

I'd like to talk to you about some important issues facing the Air Quality Division:

1. Reducing impact from new gas well development on the air quality in Southwest Wyoming. We need to be aggressive about reducing that impact for the Pinedale Anticline area and the upper Green River Basin. That is a big area for focus of our activity in the upcoming months.
2. How do we keep up with the permitting? We have set out a series of requirements for permits. The State has said if you want to drill a well you have to do x, y, z. We have an obligation to process permits in a timely manner. Our ability to do that is being threatened by the staff turnover in our permitting program.
3. Power plant permitting. There is an increasing interest on the part of developers to build new power plants in Wyoming. We have talked to a number of industries. I was talking to someone from PacifiCorp and they reminded me that sometimes projects go through the permitting phase and never get built. In addition, PacifiCorp, recently purchased by Mid America Energy Holding Company, has committed to \$812 million of improvements in power plants in Utah and Wyoming. Quite a few of those projects will require permitting actions by Air Quality. Permitting of a Power Plant or Power Plant modification is not as simple as a gas well, so I am anticipating that the utility industry will soak up a fairly significant amount of our resources over the next decade.
4. The important issue, as I mentioned earlier, is staffing and turnover, salaries, especially at the lower levels.

5. Another issue I'm afraid I can do nothing about, is the continued onslaught of Federal Regulations that the Air Quality Division needs to respond to. If we could clone Tina, maybe that would help. Absent of that, there is nothing we can do about it.
6. The other thing I have noticed is that there is a high level of uncertainty created whenever a Federal Regulation is promulgated because we are almost certain someone can sue EPA and that rule, as promulgated, will not make it into effect, it will be remanded by a court and changed by authorities.

There are two other issues I think that will occupy our time in the foreseeable future. One is the PM Rule. EPA has enacted or adopted PM coarse standards for particulate matter between 2.5 and 10 microns. Depending on how that final rule comes out, we may be okay in Wyoming. We may have some struggles. The last area is the Regional Haze. We will be talking about that in connection with the BART Rule. There are a number of challenges with Regional Haze. It's hard for me to get my arms around it. There is the 308 vs. 309 issue. We will talk about this when Lee briefs you about the BART Rule.

We have had several activities take place since your last meeting in December of 2005 which I thought I would highlight for you.

1. Dan retired, and I am the new Administrator of the Division, again, I am challenged every day.
2. Since the last meeting you may have heard rumblings about the ozone in Pinedale. In February of 06, we measured significant levels of ozone. There is continuing concern about what are the effects of the levels of the ozone. I have continuing concern about assuring that not going into non-attainment in that area.
3. We have completed another phase of the NO₂ increment study. I'd be happy to talk to you about that. In capsule form, the results of that show that we have consumed about half of the airfield area itself, it's something on the order of less than a tenth in the Bridger Fitzpatrick Wilderness Areas. We also concluded that you don't really need to reach out 300 miles from Sublette County to account for power plants in Utah. Most all of the increment consumption accounted for is by sources that are in southwest Wyoming. We have, since your last meeting, launched an effort to revise oil and gas BACT (Best Available Control Technology). We had one meeting with Industry about Oil & Gas BACT Revisions. This is one of the things we are doing to try to address proportionately the upper Green River Basin. We are proposing to crank down significantly in the upper Green River Basin generally and to a lesser extent across the State.
4. The Jonah Infill Record of Decision was issued by the Bureau of Land Management and contained a couple of things involving drill rigs. First, is that companies had to do a year-long study of technology to retrofit the control emissions from drill rig engines that needs to be reviewed by the Department (Air Quality Division) at the end of that study period. The second requirement, after that study is completed, the Department will specify something that is called Best Available Technology to control emissions from drill rig engines. We have operators of the Jonah and Pinedale Anticline fields come in and talk to us about the study designs and about how we implement BACT at the end of that study period. It turns out they are a very

large source of NOx emissions when they are brought together in concentrated areas and run year around.

That's where we are and that's the activities since the December meeting. If you have any questions, I would be happy to answer those for you.

Darrell Walker: Do you feel you have accurate enough emission data in the Jonah area?

Cara Keslar: We have very accurate data. We ask the operators to take an inventory of their operation activities. We just asked for a 2005 inventory. Last year we asked for a 2004 inventory of the gas emissions in that area. There is a fairly good calculation of how much emissions result. We know what the control mechanisms are, since we issue the permits. I think we have a fairly good handle on it, maybe better than anywhere else in the State about what the actual emission inventory is. I'm not sure we have that same level of confidence for drill rigs, we don't have a permitting mechanism. The BLM is supposed to collect that data, but I'm not sure how aggressive they've been in doing that. The key thing for us, along with regulation is what is actually being used in the field and what is being emitted.

Darrell Walker: Most of it comes from Jonah Anticline and not from 300 miles away, how do you separate that out?

Dave Finley: The way that was done, we did our NO2 modeling in three phases. We ran the models once with just the sources in Sublette County then we expand to the Southwest Wyoming domain and we do the same thing all over again. And we do the same model and that shows a slightly larger percentage. Then we reach out 300 miles in Utah, it only added 1%. What that shows us is that most of the increment is consumed by sources in Southwest Wyoming and not by power plants in Utah.

Ronn Smith: When you model NO2 concentrations at a particular point, how well does monitoring agree with that model?

Cara Keslar: Since we didn't have NO2 monitors out there in 1997, you can't monitor for increment consumption.

Cara Keslar: I think it is within 2-5 mcg of 100. The annual concentration at Jonah is 17 mcg.

Darrell Walker: Does this include traffic from the interstate?

Lee Gribovicz: This includes traffic from the interstate, locomotives, etc.

B. Enforcement Activities Report

Nancy Vehr: I'm Nancy Vehr, Asst. Attorney General representing the DEQ/AQD. This update is since my last report to the Board on December 7, 2005.

On the litigation side of things: The mercury Rule. Mercury MACT and Mercury CAMR Petitions for Review. Wyoming intervened. The cases were then stayed pending EPA's reconsideration of the rules. At the end of May 2006, EPA completed its reconsideration having revised some definitions and the mercury allocation of some of the states. The litigation will resume and by the end of the summer we should have a briefing schedule. On the PRB Coal Bed Methane EIS challenges - First, the ALA and WOC cases were argued in the summer of 2004 - included an air quality challenge - Judge Johnson's decision is pending. Second, the ED v Norton case - This case started in Montana, and last year the Wyoming portion of the case was ordered transferred to Wyoming's Federal District Court. ED attempted to have the 9th Circuit Court of Appeals overturn the transfer order, but the 9th Circuit declined to take the case, so the Wyoming portion came to Wyoming in December. This spring we filed briefs for dismissal on the merits, ED requested a voluntary dismissal which would allow them to re-file the challenge again - The Court granted ED's request. We have asked the Court to reconsider its Order. The Jonah Infill ROD challenges. Jonah Infill Record of Decision there were originally 3 petitions filed: BP, Wyoming Outdoor Council and Bio-Diversity. BP asked for their Petition to be dismissed - the IBLA dismissed it. WOC case deals with air quality issues. Bio-Diversity case deals with Wildlife issues and requested directional drilling. The IBLA denied WOC's and Biodiversity's request for stay. Now awaiting decisions on merits.

On the enforcement side. As of December 7, 2005, there were 41 open enforcement cases including 15 cases operating pursuant to 8 consent decrees. Between December 7 and June 30, 2006, we opened 14 cases and closed 24 cases. So we currently have 31 open cases including 10 cases operating pursuant to 4 consent decrees.

Rules. Dave mentioned the mercury rules - Tina will be talking about pending rulemaking.

Dave Finley: Dave noted that the Department has begun putting NOV's on our website.

C. Status Update on Previous Board Activities and Other Old Business

Dave Finley: NSR Rule is going before the EQC next week. General Permit Rule. This rule was received positively by folks who testified before you. It, however, has not gone forward. The delay has been because the Section 308/309 effort has consumed Tina's time for quite a bit of this last year, so consequently, we have not advanced that rule. There is still interest on the part of the construction business. Gravel crushers and screen types of businesses would fit well under this rule.

IV. NEW BUSINESS

A. Proposed Mercury Rule (Chapter 14, Section 4)

Tina Anderson: Tina introduced herself and Stewart Griner. Tina spent a few minutes on the rulemaking timeline. NSR Rule will be heard at the EQC meeting next week.

In regard to mercury, we talked before about what our options are. We talked about trading and decided that would be the best option.

This came into being when EPA completed a study in 1998 112(n) Clean Air Act. EPA received 14 petitions from states, environmental groups, and Indian tribes to reconsider.

This is a National Rule to control mercury emissions from US coal-fired electric utilities. Mercury emissions are a global problem. Recap of the global problem. 97% of the mercury emissions are coming from outside of the United States. 1% are from power plant emissions and 2% from all other sources.

Mercury deposition: 11 tons from power plants and hoping to bring that down to 3.4 in 2020.

Program deals with new sources and existing sources under CAMR.

Stewart Griner: Stewart talked about New Source Performance Standards (NSPS).

Bituminous Coal vs. Subbituminous Coal

Definition: County-level geographical area receiving less than/greater than 25 inches mean annual precipitation based on the most recent publicly available U.S. Department of Agriculture 30-year data.

Tina Anderson: Goal for existing sources: 1999 EPA's best guess where we were, 49 tons emissions. First phase (2010-2017) gets us down to 38, second phase (2018) gets us down to 15 or so.

Wyoming mercury cap. Under the trading program the cap becomes the basis for the allowance distribution.

Ronn Smith: I have in my notes from December at that time NSPS we were looking at 42 subbituminous. That was a change due to New Source.

Tina Anderson: Plan: Try to adopt the trading program by reference all of the portions that don't have allocation (portions that EPA will control). Then we will submit the individual allocations (we will have a list in terms of what each state will get by November).

Tim Rogers: (unable to hear)

Tina Anderson: EPA should approve the plan (if the state adopts the plan by reference). The source will have to apply for a mercury budget permit through the Operating Permit Program at least 18 months prior to January 1, 2010 and then EPA will run the program.

Requirements of the Federal Rule:

- Each source shall have a "designated representative".
- The designated representative will submit a mercury budget permit application.
- The source will comply with the monitoring recordkeeping and reporting requirements.

- As of the allowance transfer deadline, the source compliance account must hold allowances not less than the ounces of mercury emissions for a given control period.
- If the source emits mercury in excess of allowances held, then the source will surrender allowances sufficient to offset the excess emissions and surrender allowances from the next control period three times the excess emissions.

Dave Finley: If you emit mercury in excess of the allowances you are holding how can you surrender allowances?

Tina Anderson: You get them in blocks. So EPA will take allowances from the next year. At some point you are short so you have to go out and buy them. It becomes a financial penalty.

Darrell Walker: Why is this run by the EPA and not the State?

Tina Anderson: Because this is a program that is run across state boundaries.

Darrell Walker: How significant is that 1% out of 99%?

Tina Anderson: There are local deposition effects. We are only beginning to understand the mercury effects. The only place in Wyoming right now showing significant Mercury is Yellowstone. Mercury is an extremely toxic pollutant.

Joe Reichardt: In the dry areas, where does that Mercury go?

Tina Anderson: We don't have a good handle on that right now; we are just starting to monitor that. All we know is that we can estimate what we are putting up collectively and estimate.

Stewart Griner: Monitoring remains a big question. The NSPS allows two methods:

CEM (Continuous Emission Monitoring)
Sorbent Trap Monitoring

Bill Lawson: We are looking at two monitors and spending \$½ million per unit that we install.

Ronn Smith: Is the monitoring program single point?

Tina Anderson: Yes, single point.

Contents of the State Mercury Rule:

Adoption by Reference of Federal Requirements
Applicability (Cogen)
Definitions (referencing the Federal Rule)
Allowance Allocations

- Sets the budget for the state

- Establishes timing requirements
 1. First submittal Nov 2006 (2010-2014).
 2. (I) Subsequent submittals 10/31/11 and every 5th year thereafter (2015-2019) for existing sources.
 3. (II) If we fail to submit, then EPA will assume allocations from previous control period unless 2018 adjusted for the new budget.
 4. (I) Allowance submittals for new sources and allowance redistribution of leftovers.
 5. (II) If we fail to submit, then EPA will assume allocations from the previous control period unless 2018 adjusted for the new budget.

Stewart Griner: Allowance Allocation

Baseline heat input

- Units that commence operation before 01/01/01
 - o Actual heat inputs for 2000-2004 x Coal Adjustment Factor (3.0 for lignite, 1.25 for subbituminous)
 - o Average of Highest 3 Adjusted Heat Inputs
- Units that commence operation on or after 01/01/01
 - o Converted Heat Inputs (Output based) for first five years x Coal Adjustment Factor
 - o Average of Highest 3 Adjusted Heat Inputs

(Construction On or After 01/01/01)

Output based

Boilers

Turbines

Steam from Cogen Boilers and Turbines

Divide Heat Energy of Steam by 0.8 (assumes 80% efficiency of heat exchanger)

90% of State Budget goes to units with a baseline heat input (mercury budget units)

Unit allowance (90% budget x baseline heat input/total of baseline heat inputs)

new unit set-asides

10% of state budget goes to new units without a baseline heat input

Stewart showed a chart of Initial Allocations with the Facility name Rated Output for years 2010-2014, 2014-2017, 2018+

Ronn Smith: Has anyone looked at this lbs per megawatt hours and the NSPS?

Stewart Griner: Pointed out the allocation of the New Unit Set-Asides.

Allocation of the New Unit Set-Asides

- New units must request allocation
- Request can not exceed previous year mercury emissions
- If total of approved requests are less than new unit set-aside, allocate per approved requests
- If total of approved requests are greater than new unit set-aside, divide proportionally
- Notify facilities of final allocations

Unused portion of new unit set-aside is divided proportionally among mercury budget units

Dave Finley: We have several new power plants on the horizon. Is 10% enough?

Tina Anderson: We can tell that by looking at what we have, using EPA's 6% wouldn't work; we increased it to 10%. We tried to find a place where everyone was comfortable. Over time it gets redistributed.

Joe Reichardt: Do any of the current pollution control methods control mercury?

Stewart Griner: They do, for instance, the scrubbers.

Tim Rogers Black Hills: (inaudible)

Dave Finley: I am concerned that there are some on the board that already consume 150 of the 190 set-aside. It seems that there's a definite preference for the existing units.

Tina Anderson: There are older units that are up and running. They are retrofitting and putting controls on vs. someone coming on line with a brand new plant.

Bob Erickson: Discussion about the set-aside and output.

Bill Lawson: It allows us to do what's cost effective first. It allows us to know what we need to do. We are interested in building new units too; it will always be there for a new unit.

Bob Erickson: There was a stakeholders meeting in your office in Cheyenne.

Tina Anderson: There has to be a certain number of states that have to participate in the trading program or it will not work. The last discussion we had is that there may not be enough interest in the trading program. If it does fail, they will have to re-group and come up with another proposal. Part of it is a spatial distribution. Right now it is still a go, and we will try to keep everyone posted on that.

Bill Lawson: Voiced support for what the State has done. What's going to be useful to the utilities is understanding what is expected of us. PacifiCorp operates 12 coal-fired units in the state. Even here looking at five years. The benefits we see is that we should know 5 years ahead of time what the requirements will be.

Ronn Smith: Is there any discussion from the Board? Are we ready to entertain a motion for approval? It seems like a well-conceived plan to me based on what you had to deal with, probably the best chance you had getting it approved through EPA.

Motion to recommend approval of these new rules by Darrell Walker. Second by Joe Reichardt. Motion carried unanimously.

A. Proposed Best Available Retrofit Technology (BART) Rule (Chapter 6, Section 9)

Lee Gribovicz: Defined the National Visibility Goal ... the prevention of any future, and the remedying of any existing impairment of visibility in mandatory Class I Federal areas which impairment results from man-made air pollution.

On July 1, 1999 EPA published the Regional Haze Rule to implement the National Visibility Goal by requiring all states to submit State Implementation Plans to address regional haze visibility impairment in the 156 National Class I areas leading to achievement of Natural Visibility Conditions by 2064.

Includes impacts from neighboring states.

This regulation required all states to submit SIPs by the end of 2007 under section 308 of the RHR.

A special provision was granted under section 309 to acknowledge the work already completed by the Grand Canyon Visibility Transport Commission (1990-96).

The "309 Option" was granted to 9 states, with SIPs due by 2003.

5 States exercised this option: Arizona, Oregon, Utah, New Mexico, and Wyoming.

Wyoming submitted our Section 309 SIP in December 2003.

Included participation in a "Backstop" SO₂ Trading Program for controlling stationary source emissions under a set of milestones.

- As long as the emissions totals from the designated program participants (100 TPY SO₂ emitters) in the five states stayed under the milestone for any particular year, no further regulatory control was required.

Lee showed a chart of SO₂ Milestones in the Five State 309 SIPs in 1000 Tons from 1990 to 2040.

There was a problem with this option:

Center for Energy and Economic Development (CEED) Lawsuit ensued.

Columbia Circuit Court of Appeals ruled in 2005 that the methodology for determining the milestones in the Annex using a “group BART” approach was not acceptable.

All WRAP States are now developing 2007 SIPs.

Wyoming and other 309 states are planning a “split estate” for control strategies (i.e., BART for NOx and Trading for SO2).

BART is applied to:

1. Stationary sources of air pollution constructed in a 15-year window between August 7, 1962 and August 7, 1977
2. Having the potential to emit more than 250 TPY of any air pollutant
3. And belonging to one of 26 categories of industrial operations (i.e., fossil fuel power plants, petroleum refineries, large industrial boilers, cement plants, sulfur recovery plants, etc.)

RH Requirement for BART:

Section 308(e) contains BART requirements for regional haze visibility impairment.

The State must submit an implementation plan containing emission limitations representing BART and schedules for compliance with BART for each BART-eligible source that may reasonably be anticipated to cause or contribute to any impairment of visibility in any mandatory Class I Federal area.

BART is an emission limitation.

BART must take into consideration:

- The control technology available
- The costs of compliance
- The energy and non-air quality environmental impacts
- Any pollution control equipment in use at the source
- The remaining useful life of the source
- The degree of visibility improvement that would be achieved in each mandatory Class I Federal area as a result of the emission reductions achievable from all sources subject to BART located within the region that contribute to visibility impairment in the Class I area.

BART Factors

The degree of visibility improvement factor is addressed by July 6, 2005 EPA Guidelines BART:

- Wyoming District Engineers identified “BART-Eligible Sources using the Guidelines
- Wyoming conducted CALPUFF modeling to determine whether sources “contribute” 0.5 dV of visibility impairment to the nearest Class I area
- Sources that “contribute” are “Subject to BART”

Lee identified Wyoming Companies that are “Subject to BART”

Basin Electric Laramie River Plant believes that they are not subject to BART. Lee said that he would entertain a written explanation and review.

Letters went out to eight companies on June 14, 2006.

They must now conduct BART control analyses using the five factors (technology available, cost, energy and non-air impacts, existing pollution control, and remaining useful life of the source).

Trading Plan BART Analysis:

- Any alternative control strategy must be “Better than BART”.
- WRAP Stationary Sources Joint Forum now working on redefining the 309 Revised SO2 Program.
- When all WRAP states complete their BART analyses, and define their control plans, WRAP must then model the regional improvement.

Lee showed a chart showing the Uniform Rate of Reasonable Progress Glide Path at Bridger Wilderness on 20% Worst Days of the Haziness Index in Deciviews from the years 2000 to 2064.

Ronn Smith: How much of the visibility impairment is attributed to SO₂ vs. NO_x?

Lee Gribovicz: In the East is sulfate; in the West, basically 30% sulfates and 60% organic carbon and dust plays a significant part.

Darrell Walker: How much of it is natural? For instance in Yellowstone? VOCs from live trees?

Lee Gribovicz: That is considered in the modeling. I can not tell you off the top of my head.

Jeff Snider: Deciview index is a logarithm. It is a bit like the problem with pH in rainwater in the case where the desire was to change the pH, in some ways by using the deciview index it makes it appear as if you are not making progress.

Audience member: When you do the BART screen analysis, was that just done with NO_x?

Lee Gribovicz: We modeled NO_x, SO₂, and PM emissions.

Joe Reichardt: In the case of the Laramie River Plant if it turned out that they are not BART-eligible, what would be the difference?

Lee Gribovicz: They would not have to complete a BART Control Analysis.

Tina Anderson: Read the guideline for BART-eligible.

Applying the Guidelines

- Incorporation by reference
- Fossil fuel-fired steam electric plants greater than 750 MW required to comply with the guidelines, all others use as guidance

Identification of Sources Subject to BART

- Modeling exercise which demonstrates which sources cause or contribute to visibility in any Class I area
- To cause is to be responsible for a 1.0 deciview change
- To contribute is to be responsible for a 0.5 deciview change
- A single source is exempt if the 98th percentile daily change is less than 0.5 deciview at all Class I areas for the entire multi-year modeling period

Jeff Snider: How are the statistics performed?

Tina Anderson: Run the model.

Jeff Snider: Asked how is the 98th percentile determined.

Dave Finley: Answered it is a quasi value.

Tina Anderson: Rule instructs that we provide notice and we have done that.

The way we are going to handle the BART review process is a BART Permit.

- 3 months from the date of notification (September/October 06)
- Less than 40 tpy SO₂ and NO_x or, less than 15 tpy PM can exclude those pollutants from the analysis
- Follow instructions in Appendix Y

Five Basic Steps of the Case-by-Case BART Analysis:

1. Identify all available retrofit control technologies.
2. Look at all potential retrofit control options that represent the full range of demonstrated alternatives.
3. Eliminate technically infeasible options.
 - You must make a demonstration of technical infeasibility, based on physical, chemical or engineering principles.
4. Evaluate control effectiveness of remaining control technologies.

- Make sure the degree of control uses a metric that ensure “apples to apples” comparison.
- Give consideration to control techniques.
- Evaluate impacts and document results.

5. Evaluate visibility impacts.

Evaluation of all the Factors:

- Applicant will analyze all of the factors, make a selection and propose a level of control and control technology to the Division as part of the BART permit application.
- Division will review the analysis and make a decision.

Presumptive Levels for Utility Boilers:

- Presumptive limits apply to EGUs at power plants with a total generating capacity in excess of 750 MW.
- Coal-fired EGUs greater than 200 MW, and currently uncontrolled should achieve 95% SO₂ removal or 0.15 lb SO₂/mmBtu (unless the State determines that alternative level is justified based on Appendix Y analysis).
- For NO_x, EPA is establishing a set of limits for coal-fired EGUs greater than 200 MW based on coal type and boiler type and size and whether SCR or SNCR are used.

If you can't meet the presumptive level an alternative level is justified based on Appendix Y.

Permit Review:

- Timeline, public comment and fee structure follow Chapter 6, Section 2.
- Modifications to a BART permit will require Administrator approval.
- Will require a modification of the operating permit.

BART Control Equipment:

- Control equipment must be installed and operating as expeditiously as practicable, but no later than 5 years after EPA approval of the RH SIP.
- Establish procedures to ensure equipment is properly operated and maintained.

BART Alternative:

- The Administrator may require participation in an emissions trading program (SO₂ trading program) or other alternative measures developed in accordance with 40 CFR

51.308(e) rather than require sources subject to BART to install, operate and maintain BART.

The EPA has proposed August 1 the guidelines for alternative to BART and is currently in the Office of Management of Budget.

Monitoring, Recordkeeping and Reporting must be sufficient to show compliance or non-compliance on a continuous basis.

BART Timeline:

- Identify the list of sources
- Identify the list of sources subject to BART
- Send out letter to sources
- AQAB meeting on BART rule (July 10 & 11, 2006)
- Establish protocol for Step #5 in BART Analysis (August 2006)
- EQC hearing on BART rule (October 2006)
- Receive BART analyses from subject to BART sources (October 15, 2006)
- Final BART rule published by SOS (January 2007)
- Complete review BART analyses – no decisions (February 15, 2007)
- Issue BART Permits (March – May 2007)
- Send results of BART analyses to WRAP (June 2007)

Darrell Walker: Are the other five states doing this?

Lee Gribovicz: Montana doesn't have the option to participate in SO₂ trading, so they have to establish BART.

Jeff Snider: How are the presumptive levels established?

Lee Gribovicz: EPA did some analyses on what they felt was technologically feasible. They are mandated. Industrial boilers are typically smaller, they focused on the bigger sector. There is a specific citation.

Dave Finley: Any suggestions for timelines. You can call Lee or Tina with dates. We need to move as quickly as possible to get this to EQC and move forward.

Suggestion was to push back receiving analyses from BART sources to December 15, 2006. Question was, would that still get the time needed?

Basin Electric Laramie River Station: Question was 0.15 presumptive?

Bill Lawson: I received four of the eight letters. I'm evaluating 10 units. Evaluating the technologies. Maybe we do not have to reinvent the list, perhaps we could pull together to create that list. I'm hoping that the presumptive BART will help to alleviate a lot of the pressure. Low NO_x burner, subbituminous coal and bituminous coal. I am not going to debate whether or not

we are BART-eligible, we will step up to the plate and lower our emissions. It is a significant investment, significant time investment, and the time line is short for me. The issues that I see are: if we can look at those technologies, and get the modeling protocol (EPA modeling protocol changes as fast as we are doing business), SCR issue vs. low NOx burners, and the time frame that we are being asked to get this done.

Dave Finley: Changing the date to submit the permit application (Page 6, (e) BART Requirements, (i) Submission of Best Available Retrofit Technology (BART) Permit Application to:)

Otherwise I don't see a need to change the rule.

Ronn Smith: Addressed the Comment Letter submitted by Wyoming Outdoor Council. Basically everything identified in the comment letter has already been addressed or the rule cannot be passed without following the guidelines that have been mentioned in the letter.

Suggestion was made to table the rule overnight to entertain the language of date for submission of the permit application.

Motion to pass the rule on to EQC with wording for timeline being adjusted was made by Joe Reichardt, seconded by Jeff, motion passed unanimously.

Meeting adjourned at 5:28 pm.

July 11, 2006, 8:00 AM

IV. NEW BUSINESS (CONTINUED)

Meeting called to order by Ronn Smith.

D. Natural Events Action Plan (NEAP) for the Powder River Basin

This morning we are going to begin with the NEAP.

Mike Stoll: Introduced himself and he is currently working with the Operating Permits Program. He was asked by Dan Olson to work with the NEAP for the Powder River Basin Area. This plan was developed with a lot of cooperation by the Wyoming Mining Association. Tim Rogers was also available to give us quite a lot of help with this. I appreciate everyone's extra efforts in putting this together.

For purposes of NEAP we have identified areas of Campbell and Converse Counties. The area is a very active area.

Background Information:

- In the PRB area there are approximately 60 reference and equivalent method PM10 monitors.
- Since 2001 a number of exceedances of the 24-hour PM10 National Ambient Air Quality Standard (NAAQS) have occurred in the PRB in Wyoming (due to wind mostly).
- The majority of the exceedances have been the result of high wind conditions that have been exacerbated by an ongoing drought.
- EPA has recognized that there are uncontrollable natural events that can cause or significantly contribute to short-term, elevated PM10 levels.
- EPA issued a Natural Events Policy (NEP) on May 30, 1996 to address this issue.

Once man-generated sources have been controlled to the best of their ability, a natural event can overwhelm to obtain those standards.

NEAP:

- Addresses uncontrollable natural events such as volcanic/seismic activity, wild fires and high winds that can result in adverse impacts to the NAAQS.
- Set forth procedures for protecting public health through the development of a Natural Events Action Plan (NEAP) which requires the use of Best Available Control Measures (BACM) for human-generated particulate emissions in the area of concern.
- Allows for the flagging of elevated monitoring data resulting from a natural event, provided BACM has been implemented, such that the event might be excluded in a determination of the region's air quality.

We need to be assured that the BACM were in place during the exceedance.

NEP Guiding Principals:

- Protection of the public health is the highest priority for Federal and State air pollution control agencies.
- The public must be informed whenever the air quality in an area is unhealthy.
- All valid air quality monitoring data is to be submitted to the EPA Air Quality System (AQS) and made available for public access.
- Reasonable measures for safeguarding public health must be taken regardless of the source of PM10 emissions.
- Emission controls should be applied to sources that contribute to exceedances of the PM10 NAAQS when those controls will result in fewer violations of the standards.

NEAP: Recognizing the need to protect public health in the area where the exceedances are occurring, the Air Quality Division, with the cooperation from the Mining Companies in the PRB has prepared a NEAP based upon EPA's Natural Events Policy guidance. The purpose of the plan is to:

1. Educate the public about the problem,
2. Mitigate health impacts on exposed populations during future events, and
3. Identify and implement Best Available Control Measures (BACM) for significant anthropogenic sources of windblown dust.

Public Education Program:

- The AQD has met with the Campbell County Commissioners, the Wyoming Mining Association and interested stakeholders to discuss problems associated with elevated levels of PM10 emissions.
- A plan has been proposed for notifying the public when a high wind event resulting in elevated levels of windblown dust might occur.
- Steps have been identified and/or taken to control dust emissions during future high wind events.
- A description of how to minimize the public's exposure to high concentrations of PM10 emissions has been prepared.
- A task force is being formed to address potential anthropogenic sources that have not been identified and addressed by the NEAP.

There are monitors that we will deal with on a case-by-case basis.

Definitions:

- High Wind Event: When average wind speeds reach 20 mph or greater. The trigger level for mines to implement reactionary control measures.
- High Wind Alert: When average wind speeds of 30 mph or greater are forecast by the National Weather Service; forecast winds trigger the issuance of a Blowing Dust Health Advisory Alert (Public Notification).
- Blowing Dust Health Advisory Alert – Public notification that a high wind/blowing dust alert is imminent or is currently taking place.

Particulate matter in dust, wind speeds increased level of influence.

Public Notification:

- A Blowing Dust Health Advisory Alert has been defined as the public notification of the occurrence or expected occurrence of hourly wind speeds that will exceed 30 mph.
- A blowing Dust Health Advisory Alert will be called, issued and discontinued based on wind forecasts from the National Weather Service in Rapid City, SD.
- The public will be advised of the following precautions: “elderly citizens, young children, and individuals with respiratory problems should avoid excessive physical exertion and minimize outdoor activities. Although these are the people most susceptible to health impacts, it is recommended that everyone take precautions to avoid exposure to poor air quality conditions.”

Implementation of Control Measures:

- The current NEAP plan focuses on measures to control PM10 emissions from coal mining sources since it is the ambient monitoring systems around these large surface coal mines that have experienced exceedances of the 24-hour NAAQS.
- Any non-coal sources that are demonstrated to contribute to elevated measurements in the area of concern will be addressed separately, or will be included as a future update to the Natural Events Action Plan.

Implementation of Control Measures:

- The area defined by this plan covers 2,340 square miles. Often, the conditions on one end of the PRB might be quite different than conditions found 80 miles away at the other end.
- The mines have an expansive particulate monitoring network and include real time TEOM monitors at a number of locations. Additionally, most of the mines also have meteorological monitoring stations which provide site-specific information on weather conditions at the mines.
- As a result, the mines are qualified to quickly recognize and react to a high wind event, even if it has not been forecast by the National Weather Service.

Implementation of Control Measures:

The Division has proposed to split the PRB area into three sub-regions to more effectively manage control measures required for the mining companies with their variable operations.

- The North PRB consisting of the Buckskin, Rawhide, Eagle Butte, Dry Fork, Ft Union, and Wyodak mines.
- The Central PRB consisting of the Caballo, Belle Ayr, Cordero Rojo, and Coal Creek mines.
- The South PRB consisting of the Jacobs Ranch, Black Thunder, North Rochelle, North Antelope/Rochelle, and Antelope mines.

Mike showed a BLM map showing the coal mine locations in the Northern Powder River Basin and their coal production in 2005, noting the size of Gillette in comparison to the size of the mines. He then showed the coal mines in the Central Location and the Mines in the Southern Area of the PRB.

Implementation of Control Measures:

- The AQD and the individual mines are responsible for monitoring the forecasts on the NWS website to identify possible high wind events (winds which meet or exceed 20 mph hourly wind speeds). <http://www.crh.noaa.gov/ifps/gridpoint.php?site=unr>
- The NWS forecasts of elevated wind speeds will trigger increased surveillance by mine site personnel.
- Mines with continuous PM10 instruments will monitor concentrations in near real time and notify adjacent mines if levels are trending toward exceedance levels.

- Based on values obtained from local meteorological instruments, the mines will implement reactionary control measures during high wind events.
- Mines with written mitigative response plans will implement those plans during high wind events.

Three types of controls have been categorized for the PRB Coal Mines:

1. Best Available Control Technology (BACT) – the control measures which are identified for each specific mine during the air quality permitting process.
2. Best Available Control Measures (BACM) – control measures that are not permit requirements, but must be employed continuously to be effective during a high wind event. Generally, these controls address large contiguous disturbed areas that are potentially a source of fugitive dust.
3. Reactionary Measures – actions or activities that can be conducted or modified on a temporary basis to reduce emissions during the high wind event or alert. (Re-employing the water trucks to different areas of the mine, perhaps stopping some of the dust-causing construction.)

Rejected Control Measures:

- Suspension of Blasting. This process is dangerous and can disrupt normal mine activities and traffic.
- Establishment of windbreaks. Requires extraordinary effort to establish and maintain windbreaks.
- Use of sprinkler systems. Availability of water is a problem. Freezing and equipment breakage is an issue during cold weather.
- Supplemental irrigation. There is an insufficient water supply generally for irrigation. The method has been demonstrated to be detrimental to the re-establishment of native vegetation.
- Paving mine haul roads. Technologically infeasible considering the size and loads of the equipment using the roads.

Where do we go from here?

The plan is available. If you were not able to get a hold of the plan. We are accepting public comment for the next 30 days. Written comments can be submitted to Mike at:

Michael Stoll
 DEQ, Air Quality Division
 Herschler Building, 2nd Floor East Wing
 122 West 25th Street
 Cheyenne WY 82002

- A final version of this plan will be submitted to EPA for review and acceptance.
- Periodic evaluations are required to:

- Assess and review conditions that may be continuing to cause exceedances of the NAAQS

Ronn Smith: How will this affect NOVs and potential non-attainment?

Mike Stoll: NOVs may still occur out there. NOVs will be issued at the discretion of the Administrator. If there are companies not operating within the scope of the NEAP, Dave has the opportunity to enforce. In terms of attainment or non-attainment, we are in a better place if we have this in place, rather than not. EPA is better able to use discretion if we have a plan like this in place. If we are able to flag and demonstrate in that the mines affected have best available plans in place we are much better served.

Dave Finley: Mike mentioned forming a task force. Campbell County has been very engaged in being proactive. The mines have been engaged in finding out what are the critical keys in dirt roads every year. I believe the mines are buying the mag chloride. There is a tremendous effort in Campbell County taking place and it goes beyond.

Campbell County took the initiative going to Washington to allow the use of transportation dollars to mitigate unpaved roads to non-attainment areas. Now they can be used in areas that have threatened non attainment areas. As a result of that action several million dollars have been made available to eight counties in Wyoming.

Jeff Snider: What can you do to diagnose when those events might occur. Is there a measurement that can be made of soil moisture?

Mike Stoll: Currently we haven't done anything like that. I can see how that might be helpful. The 30 MPH range we are only seeing potential exceedances about 30% of the time. We would like to do anything we can to minimize health advisory alerts and make them as accurate as possible.

Ronn Smith: You defined a High Wind Event of 20 MPH or more (hourly average). The standard we are held to is a 24-hour event. If there is an exceedance that day, what happens?

Mike Stoll: The 20 MPH. Once we have an exceedance that occurs, we ask for documentation. It's a discretionary determination. It's typically an event that goes beyond 30 MPH up to 60 MPH.

Ronn Smith asked for other comments.

Lee Gribovicz: What are the plans of expanding this to other portions of the State, this type of plan?

Dave Finley: I have talked with Black Butte Coal. This is a good tool to have in our tool box and we will be exploring with Black Butte and any other sources. But there was a lot of site-specific work done in relation to this plan. Having blazed the way with this plan, it wouldn't

take another two years to come up with a plan for Southwest Wyoming. I think that the lack of comments shows that there is support for this.

Mike Stoll: There was a large involvement from the coal mining companies.

Dave Finley: I don't think we need a vote from the Board. We just needed to bring this publicly before we take it to the EPA.

Tina Anderson: EPA proposed an Exceptional Events Plan. A plan to deal with Exceptional Events. It's moving out of policy and into the Rule arena. They have proposed to address Natural Events for high winds, volcanoes, and wildfires under this new rule. They've set some pretty strict categories for those areas. We commented back. We are nervous about their high wind. When you go to the rule world, we prefer to call them wind-generated dust because when you have drought, a 10 MPH wind could cause an event. You can not consider events of low moisture and high temperatures (for us that's drought). What we have asked EPA to do in the rule is to allow states to address high wind and high temperature and low moisture events (drought) conditions at least as a factor, if you can not even talk about it in your plan. This was a proposal made on the East Coast (where there was a lot of rain). The regulation also addresses ozone and there may be some interest in that at some point also.

Dave Finley: I'm not sure if that rule goes final, we may have to go back and re-visit this NEAP.

Tina Anderson: How do we address this? Do we go back through these plans? Do we do it through a SIP plan? We don't even know if a NEAP is going to be on the table when they come out with the Exceptional Events Plan.

Mike Stoll: We provided them the same plan that you have before you. They contacted us and told us they would have some comments.

Dave Finley: We also talked to them at a meeting we had in Cheyenne about two months ago and its role in flagging data. It has been discussed verbally and they have it now for comment.

Rose Haroian: Following your 30-day comment period, what is the status?

Mike Stoll: The State will treat it as though the plan is in place, we will be flagging events, requesting additional information from the affected mine or mines. We plan on using it now. We are not going to wait for EPA to say yea or nay. We anticipate them having some comments, but we are not going to wait for them to come back with them, we will deal with them as they crop up.

Ronn Smith: Mike, you and the mining companies have done a good job on this.

Darrell Walker: What about insufficient water supply?

Mike Stoll: That statement is footnoted and there is a report that was supplied to me by the Mining Association when irrigation stopped.

V. Schedule the Next Meeting

Tina Anderson: Need to schedule it in the Fall. Two Board Members are threatening to leave. Ronn Smith and Darrell Walker's terms are up this Fall. Shoot for a meeting the 18th of September.

Joe Reichardt: 1st and 3rd Tuesdays are bad.

When asked for preference for location there were a multitude of responses, consequently, it will be left up to Tina.

Agenda:
Draft of trading rule.
NSPS

Darrell Walker: Motioned to adjourn.

VI. Adjourn

Meeting adjourned.