

DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE OF OKLAHOMA

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TRANSCRIPT OF PROCEEDINGS

OF THE

REGIONAL HAZE SIP

PUBLIC COMMENT HEARING

HELD ON DECEMBER 16, 2009, AT 10:00 A.M.

IN OKLAHOMA CITY, OKLAHOMA

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(SEE ATTACHED SIGN-IN SHEET)

MR. JOE KORDZI

MR. PAUL RENFROW

MR. KIMBER SHOOP

MR. DON SHANDY

MR. BUD SCOTT

MR. DARRYL SMETTE

DEQ STAFF PRESENT

MR. EDDIE TERRILL

MS. BEVERLY BOTCHLET-SMITH

MR. ROBERT SINGLETARY

MS. CHERYL BRADLEY

MS. DIANA HINSON

MS. HEATHER LERCH

MS. LEE WARDEN

MR. BROOKS KIRLIN

MR. SCOTT THOMAS

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MS. PAT SULLIVAN

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MS. KENDAL STEGMANN

MR. JACOB PETRE

MR. BRAXTON EDWARDS

PUBLIC COMMENT HEARING

MS. BOTCHLET-SMITH: Okay. Before we get started I just wanted to remind everybody if you would please turn off your cell phones or put them on silent. We are recording today's proceedings and that will help us out a lot. Occasionally phones interfere with the microphones. So we would appreciate that.

Good morning. I'm Beverly Botchlet-Smith. I'm the Assistant Director of the Air Quality Division and I'm going to serve as Protocol Officer for today's hearing.

The hearing will be convened by the Department of Environmental Quality in compliance with Title 40 of the code of Federal Regulations Part 51 as well as the authority of Title 27A of the Oklahoma statutes, Sections 2-5-101 through 2-5-118. Notices for this hearing were published in the Lawton Constitution, the Oklahoman, and the Tulsa World newspapers on November 13, 2009. Notice was also provided through a posting on the DEQ website. This hearing is being conducted for the purpose of receiving comments pertaining to the proposed Regional Haze State Implementation Plan. This revision as provided in 40 CFR Section 51-102 of the U.S. Environmental Protection Agency regulations. The proposed plan revision has been available for inspection by the public since October 5th of 2009.

If you wish to make a statement today it's very important that you complete a form at the registration table. You'll be called upon at the appropriate time. And audience members please come to the podium before making

your statement and state your name and affiliation.

Today it will be necessary to limit the length of oral comments to no more than 10 minutes to allow all of those who wish to provide a comment the opportunity to do so.

Your comments will be made part of the hearing record and considered in developing the Agency's submission to EPA. DEQ Staff will not be providing responses to comments during the hearing. However, all comments and any Agency responses will be included in our SIP document. All meeting inquiries will be addressed at the conclusion of the hearing. And at this time we will proceed with the hearing.

Mr. Robert Singletary, who is a supervising attorney in the Air Legal Department, will give our presentation.

MR. SINGLETARY: As a general introduction, we've got federal regulations out there that require the states including Oklahoma to develop SIPs that require certain older facilities to -- older facilities that negatively impact visibility in Class I federal areas to install and operate the Best Available Retrofit Technology, what we refer to as BART, in order to limit the visibility impairing emissions that come from those sources.

Class I Federal areas include National Parks and Wilderness Areas.

In Oklahoma we have one federal Class I area and that's the Wichita Mountains Wilderness Area located down in Comanche County. However, we do have several sources in Oklahoma that have the potential to contribute to visibility impairment at Class I Federal areas located in other states including the Hercules Glades in Missouri and the Upper Buffalo and Caney Creek in Arkansas.

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4 Since DEQ is a State Agency that is responsible for implementation
of the Federal Clean Air Act here in Oklahoma, the Agency has developed this
5 Regional Haze SIP. After considering all timely public comments that are
6 received, the Agency will have the opportunity -- or the State of Oklahoma will
have the opportunity to submit this proposed SIP to EPA for its consideration.

7 Before opening it up to public comment this morning, I'm going to
8 briefly describe two things. I'm going to go through the regulatory
developments that got us here today and then I am going to look at the general
9 requirements of EPA's Regional Haze Rule and compare that to the general contents
of Oklahoma's draft Regional Haze SIP.

1 In regard to the regulatory developments that got us here, back
1 in 1977 the US Congress used Section 169A of the Federal Clean Air Act to establish
a national goal of returning all Class I Federal areas to their natural visibility
2 conditions. The Federal Clean Air Act mandates that states require certain
1 large sources that emit pollutants causing or contributing to visibility
3 impairment in Federal Class I areas to install and operate BART.

4 And it also requires states to establish long-term strategies for
1 making reasonable progress toward achieving the national goal.
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1 On July 1st of 1999, EPA promulgated the Regional Haze Rule. This
6 is a federal rule that requires states to submit State Implementation Plans
1 or SIPs that address regional haze for each Class I area that is affected by
7 emissions from sources within the State. And that even includes Class I areas
that are located outside of the State's boundaries.

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3 On May 24, 2002, the D.C. Circuit Court vacated certain portions
4 of the Regional Haze Rule.

5 So as a result of that decision, EPA promulgated on June 15th of
6 '05, amended Regional Haze Rules which included "Guidelines for BART
7 Determinations Under the Rule."

8 These guidelines are the guidelines that the states have to use
9 in order to determine what facilities are going to be subject to BART and what
10 the control technologies are going to be required.

11 The Federal Rule also required each state to submit these Regional
12 Haze SIPs to EPA for consideration by December 17, 2007.

13 Unfortunately, as a result of several uncertainties which included
14 some successful legal challenges to associated EPA regulations, the vast
15 majority of states did not submit their SIP submittals for the -- Regional Haze
16 SIP submittals by the deadline.

17 As a consequence of that, a group called Earthjustice filed a lawsuit
18 against EPA on October 21st of 2008 to force EPA to enforce those SIP deadline
19 submittal requirements.

20 As a result of that lawsuit on January 9th of this last year, EPA
21 made a Finding of Failure to Submit regarding the failure of 37 states to submit
22 Regional Haze SIPs by the deadline. Oklahoma was one of those states.

23 This is a significant finding because by making this finding, EPA
24 triggered what is called a FIP clock. It's a two year clock by which time within
25 two years EPA has to either approve a State Implementation Plan or it has to
26 issue its own Federal Implementation Plan.

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3 Since we anticipate that there would be a nation-wide Federal
4 Implementation Plan applied to all the states that do not have approved SIPs
5 by the two year deadline, if Oklahoma does not have a SIP approved, the state
6 could potentially lose control over the implementation of these Federal
7 regulations and would also likely lose much of the flexibility that comes with
8 a local tailored State Plan. As a result, it is the Agency's goal to have a
9 SIP submitted and approved by EPA prior to the deadline.

1 I also learned just prior to this meeting that there is a separate
2 consent to create -- involved from another lawsuit that may actually -- instead
3 of, I guess, extend that FIP deadline by May of 2011, I believe is what I was
4 told.

1 As for the General Requirements of EPA's Regional Haze Rule compared
2 to the General Contents of Oklahoma's Draft Regional Haze SIP, we have
3 essentially four main elements of a Regional Haze SIP.

1 The first one is a calculation of Baseline and Natural Visibility
2 Conditions.

1 The second is the establishment of Reasonable Progress Goals.

1 The third is BART Determinations for each subject source.

1 And the last element is the development of a Long-term Strategies.

1 In regard to the first element, the establishment of Baseline and
2 Natural Visibility Conditions. States are required to use data from 2001
3 through 2004 to establish baseline conditions for the least impaired days and
4 for the most impaired days at each Class I Federal area.

1 In regard to the Wichita Mountains, data collected by the IMPROVE

network from 2002, in this case, through 2004 showed baseline visibility on the most impaired days to be 23.81 deciviews.

States are also required to determine the natural visibility conditions, in other words the conditions that would exist absent any human-caused impairment at these Class I areas.

In the Wichita Mountains, the natural conditions using EPA's required methodology are estimated to be 7.53 deciviews. That means that Oklahoma has to work to improve visibility in the Wichita Mountains by 16.28 deciviews over a 60 year period.

That takes us to the second of the main elements in a Regional Haze SIP, and that's the establishment of Reasonable Progress Goals.

States are required to set goals, expressed in deciviews, that provide reasonable progress in improving from the baseline conditions to the estimated natural visibility conditions by 2064.

For Oklahoma, the process started back in 1999, when DEQ joined the Central Regional Air Planning Association, which we refer to as CENRAP, along with eight other States located in the Central United States.

CENRAP established five standing committees that addressed technical and non-technical issues related to Regional Haze. CENRAP invited interested parties and stakeholders to participate in the process. In fact, we had several companies from Oklahoma who participated in that process to one degree or another. And that included PSO, OG&E, Georgia Pacific, and Weyerhaeuser.

Modeling that was conducted for CENRAP considered emissions and reductions from all source categories and was used to assist in establishing Reasonable Progress Goals. After considering the requirements of the Federal Rule and the data that was provided by the CENRAP modeling, the Reasonable Progress Goal for the Wichita Mountains for the year 2018 was set at 21.47 deciviews.

The Federal Rule requires states to set reasonable progress goals for 2018, but then to go back every ten years or after to re-evaluate those goals.

So in other words, those 2018 goals is just the first responsible progress goal that has to be set. The goal of 21.47 deciviews is just one step on the way to achieving Natural Visibility Conditions by 2064. This goal, the 21.47 goal, is slightly higher than what a uniform rate of progress would be if you had equal improvements each year up until 2064 in achieving the National Visibility Conditions. The uniform rate of progress would be close to 20.01 deciviews by 2018. However, the Agency feels that the SIPs stated goal of 21.47 deciviews is reasonable for the Wichita Mountains.

The third core element of the Regional Haze SIP and what many would feels was probably the most significant element is the Implementation of the BART Requirements. In order to implement BART, states have to make three determinations.

One is, the state has to determine which sources are BART eligible sources.

The second is the state has to determine which of those BART eligible

sources are actually subject to the requirements of BART; and then we have to make a BART determination for each subject source.

In order to determine which sources are BART Eligible, there's three criteria that have to be met.

The first is that the source has to be listed in one of 26 categories that are contained in the Rule.

The second is the source must have been built after 1962 but in operation by 1977.

And the last is that the source must have the potential to emit more than 250 Tons Per Year of SO₂, NO_x, or PM.

It was determined that in Oklahoma we have 20 sources that meet all three criteria and, therefore, all 20 of those are BART eligible sources.

The next step in the process is to determine which of those eligible sources are actually subject to the requirements of BART. And you do that by determining which of these sources actually cause or contribute to visibility impairment at a Class I Federal area.

To do that, we look at the dispersion modeling to see whether or not it indicates that a specific source has an impact on a Class I area that's greater than .5 deciviews.

In Oklahoma of those 20 BART eligible sources, the dispersion modeling demonstrated that 11 of those sources did not, in fact, cause or contribute to visibility impairment at a Class I Federal area and, therefore, those 11 sources were granted waivers and not subject to BART.

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3 In addition, we had three other sources that were BART eligible
4 that agreed to take permit limits that will ensure that they don't have a
5 contribution or cause visibility impact to a Class I area, and therefore, they
6 are also eligible for waivers. That left us with six sources in Oklahoma that
7 are subject to BART.

8 In order to make BART determinations for those six subject sources,
9 the Agency had to apply a five factor analysis that's provided in the federal
10 rule.

11 Those factors are:

12 One, the cost of controls;

13 Two, the impact of controls on energy usage or any non-air quality
14 environmental impacts;

15 Three, the remaining useful life of the equipment that's going to
16 be controlled;

17 Four, the existing pollution controls that are already in place;

18 And five, the visibility improvement that would result.

19 In Oklahoma the six sources that are subject to BART include three
20 coal-fired power generating facilities and three natural gas fired power
21 generating facilities.

22 After applying this five factor analysis, BART for these sources
23 was determined to include low NOx burners for NOx control at both the gas-fired
24 and the coal-fired sources; and dry scrubbers for SO2 removal at the coal-fired
25 sources. Application of BART to these six sources is expected to reduce SO2
26 emissions by between 57,000 and 88,000 Tons Per Year, and reduce NOx emissions
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by between 26,000 and 55,000 Tons Per Year. These reductions would result in improved visibility at all of the Class I Federal areas that are covered in the SIP.

The fourth core element of a Regional Haze SIP is the Long-term Strategies. The Federal Rule provides that Long-term Strategies must include enforceable emissions limitations, compliance schedules, and other measures that are necessary to achieve the established reasonable progress goals. Oklahoma's draft Regional Haze SIP provides that the Agency will issue air quality permits requiring BART-subject sources to either:

One, install BART and achieve the BART associated emission limits
or;

Two, achieve a greater reasonable progress toward natural
visibility conditions through an approvable alternative.

So with this approval alternative approach there is some flexibility
for BART subject sources to comply with these federal requirements.

Regardless of the choice or the alternative chosen, the alternative
has to be achieved within seven years from the date of DEQ's Regional Haze SIP
submission to EPA or within five years from EPA's approval of the SIP.

In addition, the State's Long-term Strategies also include existing
programs such as our NSR Permitting Program that already reduces emissions of
the same pollutants that actually cause or contribute to visibility impairment.

We also have numerous State rules that specifically limit emissions
of the same pollutants for specific source categories. And we also have other
ongoing pollution control programs such as emission limitations that are

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3 contained in negotiating Consent Decrees, limitations on open burning, and also
4 the continued development of a State Smoke Management Plan in cooperation with
5 other State agencies.

6 That ends my description of the proposed SIP.

7 In regard to the next step in the SIP Process, DEQ has already
8 received formal comments from several Federal Agencies, including the U.S. Fish
9 and Wildlife Service, the National Parks Service, the U.S. Forest Service, and
10 Region 6 of the U.S. EPA.

1 I believe we have copies of all of those comments on the table in the back of
2 the room. If anyone would like electronic copies of those comments, you can
3 find those on our website as well.

4 The next step for Oklahoma will be to consider the timely public
5 comments that are received. The public comment period does end at the hearing
6 this afternoon.

7 If the draft Regional Haze SIP is substantively modified as a result
8 of the public comments that are considered, then a new draft will be provided
9 for public comment in the future.

10 However, if the draft Regional Haze SIP is not substantively
11 modified by any comments that are received, then the State of Oklahoma will
12 have the opportunity to submit the SIP to EPA for consideration.

13 That's all I have. Thank you.

14 MS. BOTCHLET-SMITH: Thank you, Rob. DEQ will now take
15 public comments on our Regional Haze State Implementation Plan.

16 Mr. Joe Kordzi, of Region 6, EPA will go first.

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3 MR. KORDZI: Thank you. My name is Joe Kordzi. I work for
4 the Environmental Protection Agency, Region 6 in Dallas, Texas, where among
5 other things, I am the regional haze coordinator.

6 Following the submittal of Oklahoma's regional haze state
7 implementation plan, I, along with input from others at EPA, will review that
8 plan to ensure that it meets the requirements of the Clean Air Act and EPA's
9 regulations for regional haze, which are contained in 40 CFR 51.308.

0 EPA's regional haze program is designed to improve the visibility
1 at our nation's Class I areas; our 156 national parks and wilderness areas.

2 We are fortunate to have a fine example, the Wichita Mountains, located in
3 Comanche County.

4 Every year millions of people visit these beautiful areas.
5 Unfortunately, due to haze caused by air pollution, many visitors aren't able
6 to see the spectacular vistas they expect. Much of this haze is not natural
7 and is caused by a variety of sources, including large stationary sources, such
8 as coal fired power plants; mobile sources, such as cars and trucks; and area
9 sources, such as fire. This air pollution is carried by the wind often hundreds
0 of miles from where it originated.

1 The regional haze program has at its core, an ambitious long-term
2 goal; the return to natural visibility conditions at these Class I areas by
3 2064.

4 I would like to urge the Air Quality Council and the Environmental
5 Quality Board to adopt the Oklahoma Regional Haze Plan. It is the opinion of
6 EPA Region 6 that the measures contained within Oklahoma's regional haze plan
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3 will do much to improve visibility at the Wichita Mountains, with co-benefits
4 to DEQ's other air quality programs.

5 Furthermore, it is vitally important this plan be submitted to us
6 for review as soon as possible. EPA is under a court ordered consent decree
7 from Wild Earth Guardians, an environmental organization, to approve either
8 a state plan, a federal plan, or some combination of both that satisfies the
9 regional haze requirements of 40 CFR 51.308 by November, 2011. If we do not
10 receive this plan soon after the beginning of 2010, we will begin the process
11 of constructing a federal plan to satisfy these requirements.

12 On behalf of EPA Region 6, I would like to acknowledge the years
13 of hard work the staff at DEQ have invested in the regional haze process. It
14 has been a long and difficult road from the passage of the 1999 Regional Haze
15 Rule to this draft Regional Haze Plan. The staff at DEQ have overcome many
16 challenges in getting this plan to this point. Their leadership within CENRAP,
17 the Central Regional Air Planning Association, is commendable and has
18 undoubtedly improved the regional haze plans of all of CENRAP's member states.

19 It has been a pleasure working with these folks and I hope to continue to
20 strengthen our association in the future.

21 EPA Region 6 has submitted written comments on this plan that we
22 request be entered into the record.

23 Thank you.

24 MS. BOTCHLET-SMITH: I might also mention if any of the
25 commenters have a printed version of their oral statement, that they are able
26 to leave with us, that would be helpful for our court reporter.

Our next commenter, Mr. Paul Renfrow from OG&E.

MR. RENFROW: Good morning. My name is Paul Renfrow. I am Vice President of Public Affairs for OGE Energy Corp which is the parent company of Oklahoma Gas and Electric Company, which is better known as OG&E.

I am here today representing my company expressing our opposition to the proposed State Implementation Plan that has been filed here by the Oklahoma Department of Environmental Quality to be in compliance with the federal Regional Haze rules.

We have also filed comments in this case that are a part of the public record so my remarks this morning will be very brief. I will be followed by Kimber Shoop who is also with OG&E that will have a little more detail on our filing.

I must start by saying that we find it very awkward to be in a position of opposing a plan filed by the DEQ. We have a close working relationship with the Agency and hold the Agency and its staff in high regard.

However, as I said, OG&E must go on the record strongly opposing the DEQ State Implementation Plan.

We disagree and oppose the draft proposal for several reasons:

First and most importantly, the proposal will result in the largest single rate increase for our customers in the company's 108 year history. This cannot be minimized nor is this fact contrived. We hear from our customers every single day about the cost of the electricity needed to power their homes and businesses. Oklahoma's largest industrial customers are extremely vocal about the competitive nature of their businesses and the need to stay competitive

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3 and remain in Oklahoma.

4 We also hear from the less fortunate, either directly or through
5 social service agencies as they struggle with the cost of staying cool in the
6 summer or warm in the winter. This proposal forces us to spend more than one
7 billion dollars of customer's money to add pollution control devices, commonly
8 called scrubbers, to our aging coal plants. Those coal plants are each between
9 25 and 30 -- 35 years old and somewhere in the last half of their planned useful
10 lives. This proposal will actually prolong the life of the coal plants when
11 it seems everyone in the country wants utilities to quit using coal.

12 This proposal is also completely contrary to the national direction
13 to reduce CO2 emissions.

14 So, to comply with the regional haze rule, the proposal requires
15 us to reduce our SO2 emissions to reduce haze in national wilderness areas by
16 adding extremely costly scrubbers to aging coal plants. But at the very same
17 time, the federal government is considering climate change legislation and/or
18 regulation that would require us to limit the use of our coal plants and likely
19 shut them down at some point; just as we have spent a billion dollars adding
20 scrubbers.

21 This creates a real quandary for us.

22 If our customers, in effect, are required to invest a billion dollars or more
23 in scrubbers on our aging coal plants then they should have every expectation
24 that we will continue to use those plants as long as we can. If we are required
25 to stop using the plants due to carbon limitations, then customers would be
26 paying for assets we would no longer be allowed to use.

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3 While the Regional Haze rule has the desirable intention of making
4 our wilderness areas more beautiful over the next 50 years, this is, frankly,
5 an inefficient approach to taking care of it. So OG&E opposes the rule. Where
6 does that leave us?

7 Well, OG&E has filed an alternative plan that benefits Oklahoma,
8 costs our customers substantially less money and actually does more for the
9 environment than the filed plan. I want to emphasize that OG&E's plan does not
10 ask the DEQ to ignore the Regional Haze rules. In fact, our proposal helps
11 the state make significant progress in improving visibility.

12 Under our plan while making steady reductions along the way, no
13 later than 2026 we will achieve the same visibility results as the scrubbers,
14 all while producing less CO2.

15 So how are we going to do this?

16 Simply stated, it is OG&E's plan to begin ramping down the use of our coal plants
17 and begin relying more on our natural gas-fired plants and wind power as well.

18 Then in the 2020s, our plan calls for us to step back and see what's
19 happened in technology advancements. Have there been advancements that would
20 allow us to use the plants going forward, carbon sequestration for example.

21 My best guess today is that in the 2020s we will be shutting our coal plants
22 down or converting them to natural gas.

23 Let me restate that just to be clear. Our plan calls for OG&E to
24 use more Oklahoma Natural Gas, more Oklahoma wind and less Wyoming coal, saving
25 customers hundreds of millions of dollars at the same time.

26 This plan accomplishes the same objective in roughly the same amount

of time. We would be in compliance with the Regional Haze Rules and by reducing the use of our coal plants; we would be better positioned to be in compliance with any climate change laws or regulations that come down the pike.

And here is the ultimately irony. OG&E would not make a penny on the alternative plan we are proposing but would stand to make a considerable amount of money on the scrubber approach that is included in the SIP.

So why would OG&E oppose a plan that we would stand to make money on? Frankly, it is simply the right thing to do and for the reasons I stated earlier that the CO2 legislation and things that are coming our way.

Why would we needlessly expose our customers to hundreds of millions of dollars of cost when there is a cheaper, cleaner, better option available?

Now we know people are questioning our math on the cost of these scrubbers. We have heard that OG&E must be wrong, the cost of scrubbers can't be a billion dollars or more. Well, unfortunately they are.

We have utilized an international engineering firm recognized for their work on such projects, called Sargent-Lundy. They carefully followed the EPA required modeling and arrived at a cost of approximately \$10,000 per ton of emissions or 1.5 billion dollars. That's where the number came from.

We concluded that there must be a better way to be in compliance, and that is how we arrived at our alternative plan.

We met with the EPA and the DEQ to review our numbers and alternative proposal.

At EPA's request we agreed to do site specific modeling based on today's costs, instead of the broader, more generic approach required under the EPA's rules.

As expected, primarily because of the significant downturn in the

economy and the drop in such things as steel prices, that number came in lower, but is still more than a billion dollars.

The other thing we have heard is that, OG&E might as well put scrubbers on now; they will have to sooner or later anyway. We strongly disagree with perspective. That kind of thinking completely discounts innovative, creative solutions that are possible like the one we are talking about today.

Let me close by saying this. America is clearly interested in a cleaner environment. This situation provides an opportunity for Oklahoma, the DEQ and OG&E to step up as leaders by proposing innovative and cost effective solutions.

We all want a cleaner environment but let's do it in a sensible way that doesn't financially crush Oklahoma ratepayers. The OG&E plan does exactly that. It's a good alternative.

We strongly recommend that the OG&E alternative plan be adopted by the DEQ and included in their final State Implementation plan to be filed with the EPA. Thank you.

I would now like to turn it over if I can, to Kimber Shoop.

MS. BOTCHLET-SMITH: Yes. That's fine. We'll have Kimber Shoop from OG&E present his comments.

MR. SHOOP: My name is Kimber Shoop. I am in-house legal counsel for OG&E. As Mr. Renfrow mentioned, we are here to make comments on the DEQ's conclusion that OG&E should install scrubbers on four of its coal units. I want explain in a little more detail how OG&E arrived at its conclusion that scrubbers are not cost-effective and why we developed our alternative

proposal.

The focus of OG&E's written and oral comments are on the DEQ's conclusion that "scrubbers" are the appropriate controls for controlling sulfur dioxide at four of OG&E's coal units.

DEQ proposes that we install scrubbers even though OG&E's analysis shows that such scrubbers are not cost effective.

So, how did we arrive at the conclusion that scrubbers are not cost-effective?

Well, after we submitted our original BART proposal and it was rejected by EPA and DEQ in 2007, OG&E was required to perform a detailed analysis to determine what controls are best for the particular units in question under the EPA's five factor analysis.

This five factor analysis is contained in the EPA rule and basically contains the basic steps to determine what the appropriate controls are for a particular unit. One of these five steps establishes the methods to be used in evaluating cost impacts. These methods specifically require a cost effectiveness calculation using the EPA methodology.

As Mr. Renfrow said, OG&E hired Sargent & Lundy, an internationally recognized engineering firm, to perform this detailed analysis.

In Spring 2008, Sargent & Lundy's analysis was completed and it showed that the capital costs and associated O&M costs on four scrubbers were not at the levels presumed by industry and the EPA, but that the actual costs were much, much higher. The analysis by Sargent & Lundy showed that the capital costs for four scrubbers were over \$1.5 billion and, on top of that, the O&M

costs were \$150 million a year.

More importantly, as part of the five factor analysis, Sargent & Lundy looked at the cost-effectiveness of installing these scrubbers and the results were that the scrubbers were nowhere near being cost-effective. Sargent & Lundy's analysis showed that it would cost \$10,000 for every ton of sulfur dioxide removed from our emissions. To put this in perspective, EPA's own regulations placed the reasonable average cost effectiveness at around \$900 per ton of sulfur dioxide removed and estimated that the reasonable range for cost effectiveness to be somewhere between \$400 and \$2,000 per ton of sulfur dioxide removed. Our number was \$10,000.00, five times the upper end of EPA's range.

EPA and DEQ have both found that OG&E performed this analysis correctly according to EPA's regulations and guidance on how to perform the five factor analysis. But, OG&E didn't stop there. At EPA's request, OG&E performed a second analysis to validate our conclusion that scrubbers are not cost-effective. The second analysis went above and beyond what was required by the EPA rules and included a more detailed, site-specific analysis under today's market conditions.

The second analysis did validate our conclusion that scrubbers would not be cost effective. It showed that it would cost approximately \$7,000 per ton of SO₂ removal. This is more than three times the upper limit of the EPA range that we mentioned before.

Why are OG&E's cost-effectiveness numbers so high? Well, there are several reasons. First of all, OG&E is unique because it gets a lot less

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3 bang for one's proverbial buck from installing scrubbers. The cost
4 effectiveness analysis for scrubbers basically looks at the costs associated
5 with the installation of the scrubber and also at how much sulfur dioxide is
6 being removed. The larger the amount of sulfur dioxide removed, the greater
7 the cost effectiveness. OG&E in particular gets a lot less bang for its buck
8 because it already uses coal with much lower sulfur content as compared to others.

9 Also, OG&E's units are not as large as some others putting on such controls
10 and OG&E runs its coal units less to ensure compliance with other environmental
11 regulations. Those are the reasons why OG&E cost effectiveness numbers are
12 so high.

13 Other entities around the country that are installing scrubbers
14 use coal with higher sulfur content, they have larger units that run more, and
15 as explained in our written comments, have also been performing the analysis
16 incorrectly using the wrong baseline to measure the amount of sulfur dioxide
17 that can be removed.

18 Moreover, other entities that are installing scrubbers are closer
19 to Class I areas and have a greater impact on visibility. For OG&E, because
20 the Class I areas are relatively distant from our generating units, the cost
21 for visibility improvement at each Class I area is \$110 million per deciview
22 of visibility improvement. This is far above the range of reasonableness.

23 The Federal Land Managers overseeing Class I areas wanted us to
24 look at the cumulative visibility improvement at all of the Class I areas where
25 we modeled. Doing that, the cost for the modeled visibility improvement is
26 over \$60 million per deciview of visibility improvement at Sooner and \$33 million

per deciview of visibility improvement at Muskogee. These values are multiples higher than the range of reasonableness specified by the Federal Land Managers in their comments. Their range is between 10 and 15 million dollars per deciview.

OG&E strongly urges the State of Oklahoma to instead consider the alternative proposal submitted by OG&E on September 23, 2009 to achieve compliance with regional haze targets for these four units. OG&E's alternative proposal will ultimately achieve the same visibility improvements as set forth in the Revised SIP, but in a cost effective manner through the use of more natural gas-fired and wind generation to meet the electric needs of our customers.

Thank you very much.

MS. BOTCHLET-SMITH: Our next commenter is Mr. Don Shandy.

MR. SHANDY: Good morning. My name is Don Shandy and I'm here on behalf of Chesapeake Energy.

I would first of all commend the DEQ in its efforts. I think everybody recognizes this is a very difficult effort. And particularly the Air Quality Division has had its share of challenges in terms of rules and regulations. So I would first again say that we appreciate the effort the Agency has put into this process.

I've also provided a written copy of our comments and -- but there are a few points that I would like to make this morning.

It is clear from DEQ's extensive study of the regional haze issue that emissions of sulfur compounds are primarily responsible for the impacts to the Wichita Mountain Class I Area.

Specifically, coal-fired generation units account for a bulk of this impact. As a result, rather than requiring huge capital investment to the Oklahoma coal-fired units that are more than 30 years old, such units should either convert to natural gas firing systems or be replaced with new natural gas fired generation units.

There is an immediate option available to Oklahoma. A significant percentage of base load generation can be supplied by existing underutilized natural gas generation facilities.

For example, the capacity utilization from combined cycle generation facilities in Oklahoma is typically less than 50 percent. Increased utilization of natural gas fired generation by the owners of the coal-fired units would improve visibility at the Class I Area according to the analysis that's been done by the DEQ.

Oklahoma must begin to effectively address emissions from coal-fired electric generation plants in Texas. There are 17 coal-fired electric generation plants operating today in Texas and another 13 are currently in the permitting process or under construction. These facilities are culpable not only for visibility impacts, but also for contributing pollutants that impair Oklahoma's ability to comply with National Ambient Air Quality Standards.

And now we have a few specific comments to the Plan itself -- to the SIP.

The Plan states "Inside Oklahoma, Texas alone contributes more to visibility impairment at the Wichita Mountains than Oklahoma does. Considering these results, any effective strategy for managing visibility impairment at

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3 the Wichita Mountains must address outside sources including regional and
4 international transports."

5 The document further concludes that "sources in Oklahoma contribute
6 less than one-seventh of the visibility impairment at the Wichita Mountains.

7 Emissions from Texas alone account for almost twice the impairment as those
8 from Oklahoma".

9 And then there are several tables I cite in our written comments
10 that DEQ cites.

11 And our comment to this is the Plan fails to adequately address
12 out-of-state sources that contribute to visibility impairment at the Wichita
13 Mountains. The DEQ needs to further evaluate these culpable sources in
14 conjunction with an applicable state agency in Texas. That would be the TCEQ.

15 And these sources need to be evaluated with the same level of scrutiny that
16 sources inside Oklahoma are being evaluated.

17 The Plan also states at Table V-8 -- Table V-8 indicates sulfurous
18 emissions clearly, most importantly, impair visibility at the Wichita Mountains.

19 The report continues by saying, "Texas sources bear culpability
20 for the largest proportion of visibility impairment." In every category except
21 course particulate sources in Texas and other states notably contribute more
22 than those in Oklahoma do.

23 Chesapeake's comment is to this element of the Plan or this statement
24 in the plan is most sulfurous emissions that impact visibility at the Wichita
25 Mountains may be attributed to coal-fired sources in Texas. That's obvious.

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3 The report states that. While the Plan acknowledges impact from out-of-state
4 sources and to some extent, attempts to address this matter via consultation
5 with Texas, and if we attempt to address this in consultation with Texas and
6 we have an agreement, according to the document, to allow Oklahoma the
7 opportunity to comment on pending Texas air permits -- permit applications for
8 sources within 300 kilometers of our border, we believe this approach is
inadequate. This is particularly the case given DEQ is requiring again or
mentioning excessive and expensive sulfur emission controls on coal-fired
electric generation units located inside the state of Oklahoma.

9 The Plan goes on and states, "In her letter dated March 25, 2008,
10 Susanna Hildebrand, Director of the Air Quality Division of Texas Commission
11 on Environmental Quality, requested concurrence of Oklahoma that DEQ did not
12 rely on additional reductions from Texas sources in meeting reasonable progress
13 goals at the Wichita Mountains. DEQ responded in a letter dated 25 April 2008,
14 confirming that DEQ accounted for all expected reductions."

15 Chesapeake's comment is that in light of overwhelming evidence that
16 Texas sources impact visibility at the Wichita Mountains, and given the
17 potentially large financial impact on Oklahoma electric generation facilities
18 and rate payers, DEQ should have requested additional reduction from Texas
19 sources to meet the reasonable progress goal.

20 I would also note that in the comments that EPA finds, I believe
21 today EPA specifically mentions in their comments "We urge Oklahoma to ensure
22 that Texas is aware its sources impacts and encourage -- its sources impacts
23 and encourage reductions as necessary. So in that respect we certainly -- we

at Chesapeake certainly agrees with EPA's comments.

If you look in Table V1-6, DEQ specifies that Dry Flue Gas Desulphurization or what it's commonly been referred to here as scrubbers to be installed on the OG&E Muskogee Units Four and Five, OG&E Sooner Units One and Two, and PSO Northeastern Units Three and Four.

While Chesapeake acknowledges that scrubber technology would result in significant reductions of sulfur emissions, which will accomplish -- such will be accomplished only again after an extraordinary and unwarranted investment by rate payers in this state.

Chesapeake is aware of OG&E's correspondence to this Agency where it is estimated that scrubber capital cost initially -- and I know this number is a floating -- somewhat of a floating number because costs varies from year to year, in some cases dramatically. But this initial letter said that it would be -- and I think it was mentioned earlier about 1.5 billion dollars.

Further OG&E claims that it expects to incur an annual O and M costs of about 150 million dollars.

And finally, OG&E in this, at least, one piece of correspondence, claims that Oklahoma rate payers would have to endure approximately a 365 million dollar rate increase. I think that anyone in this room would agree that those numbers are extremely large.

While DEQ and others in the EPA's documents clearly disputes the cost per ton removed factor that OG&E has put out there. While it may be disputed, one fact is clear and we think it's abundantly clear. That the capital and annual O and M costs for scrubbers is going to be high regardless of what

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3 the final number is. And it would represent one of the largest capital
4 investments Oklahoma history.

5 So while we definitely agree that we've got to make movement to
6 protect the Class I area, there has to be a very hard look at these numbers.

7 Chesapeake believes that the expenditure of funds for this type
8 of emission control equipment is imprudent. While it would undoubtedly be
9 acceptable to DEQ, the culpable coal-fired generation sources should focus on
10 the development and utilization of more environmentally friendly electric
11 generation units and fuels. And I think that was previously addressed by the
12 gentleman from OG&E.

13 That would conclude the comments from Chesapeake.

14 MS. BOTCHLET-SMITH: Thank you, Mr. Shandy. The next
15 commenter is Mr. Bud Scott.

16 MR. SCOTT: Good morning. My name is Bud Scott. I'm the
17 Governor of Affairs Director for the Oklahoma Chapter of the Sierra Club. I
18 have submitted formal comments as well that should be submitted into the record.

19 MS. BOTCHLET-SMITH: I have it.

20 MR. SCOTT: Thank you. I will make my comments brief because
21 a lot of the points that I started to discuss have already been addressed this
22 morning.

23 One of our major issues with the draft SIP today first lies with
24 the exclusion for most of the analysis of the Class I areas that are impacted

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3 outside of the state of Oklahoma, primarily Caney Creek and the Upper Buffalo
4 Area. Those two we would request be given the same level of analysis as the
5 Wichita Mountain Wilderness Refuge. Just because of the same issues as far
6 as any impacts that we see from emissions and of the point in areas where there
7 are transport issues.

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9 The second point that we would like to really emphasis and, number
10 one I want to really clarify that the DEQ Staff did a fantastic job on this
1 presentation and on this proposed SIP. It took a lot of work and effort here
2 and we were very impressed and for the most part support the SIP. However,
3 there are some minor revisions that we would like to see. One being the inclusion
4 of those other areas.

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6 The second of addressing out-of-state issues primarily with the
7 state of Texas. Those have already been addressed by parties at Chesapeake
8 and Oklahoma Gas and Electric. That's one of our most important points is that
9 we could be given alternative approaches which were very little addressed through
10 the SIP for dealing with the out-of-state issues on transport, the out-of-state
1 issues with direct emissions, and its impact on the -- on the Wichita Mountain
2 Wilderness Area. So we really request that that issue be addressed, number
3 one.

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5 Number two, we've identified in the alternative approaches for
6 implementation of the BART and BACT that in the alternative approaches we look
7 more towards fuel switching provisions which were not adequately addressed in
8 the provided SIP. Most of the SIP addressed the direct implementation of BART
9 and then somewhat in BACT. And we would just like to see more of that approached

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3 and given a little more detail.

4 And then finally, we would really just like to see more cooperation
5 on the interstate level.

6 Once again echoing the comments from Chesapeake and OG&E. That's
7 an area that's extremely important here as we see most of the emissions that
8 are impacting our wilderness areas and both our air quality issues here in
9 Oklahoma, the majority of those emissions are coming out of the Texas basin
and need to be adequately addressed so we can solve this problem beyond regional
haze, but also its impact on climate change, carbon emissions, and everything
else that we're going to be addressing here.

1 So ultimately the Sierra Club while we do generally support the
2 implementation of Best Available Retrofit Technologies and Best Available
3 Control Technologies at the same time we feel like the plan here in Oklahoma
4 could be revised to address some of the alternatives available that will be
5 best for the rate payers in Oklahoma, the citizens of Oklahoma, and for our
6 natural resources.

7 So with those brief comments, I thank you for your time.

8 MS. BOTCHLET-SMITH: Thank you. Our next commenter is Mr.
9 Bud Ground. Are you not wanting to make comments?

1 MR. GROUND: No, ma'am.

2 MS. BOTCHLET-SMITH: Mr. -- I'm going to mis-pronounce your
3 name. I'm going to apologize up front. Mr. Darryl Smette. Did I mess it up
4 too bad?

5 MR. SMETTE: Yes, you missed it.

MS. BOTCHLET-SMITH: (Inaudible).

REPORTER: Then you better spell that for me.

MR. SMETTE: S-m-e-t-t-e. First name is Darryl.

D-a-r-r-y-l. And I am submitting written comments.

REPORTER: Thank you.

MS. BOTCHLET-SMITH: Very good.

MR. SMETTE: My name is Darryl Smette and I'm Executive Vice-President from Devon Energy Corporation.

First I would like to thank the DEQ for having a public forum. I think it's a great example of what needs to happen. We like everyone in this room and I suspect everyone if we took a poll, are in support of cleaner air. We're here to support OG&E's application for an alternate proposal to the Regional Haze Plan.

In short what OG&E is saying is that it not only is more economical but we have less greenhouse gas emissions by converting some of the base load generating capacity to gas fueled rather than coal fueled. The Department of Energy acknowledges that coal pollutes twice as much as natural gas when you are looking at an electric generation facility. So a logical question would be if you are proposing more natural gas as a fuel for generating electricity, what type of resources of natural gas is available to you? And that's where I would like to focus my comments -- my further comments this morning.

Over the last five to six years there has been a major change in the gas resource potential in the United States and in North America. That has been driven by technological improvements we have seen with horizontal

drilling, on different types of fracking, and other technologies that the industry has developed. Earlier this year the Colorado School of Mines issued a report based on a study they put forth that said that we have 100 years of gas resource in the United States -- recoverable gas resource in the United States and that that number is growing. That number was based on data prior to the time that we had discovered and started to develop the Haynesville shale in Wyoming or in Louisiana and east Texas. It was before we developed some of the Woodford shales in Oklahoma; it was before we developed some of the shales that they are developing in south Texas. So that number of 100 BCF of gas available to satisfy the demand for the next 100 years keeps growing.

As you look at Oklahoma, just the Woodford shale in Oklahoma, there is two Woodford plays that are going on right now. One's in Eastern Oklahoma and one's in western Oklahoma. Devon happens to be in both of those plays.

Our western Oklahoma plays is called our Cana play. And just Devon's interest in our Cana play suggests that we will have over six TCF of recoverable reserves in that play. That's 40 miles from Oklahoma City. That's equivalent to about one billion barrels of oil. There is not an offshore project that has found one billion barrels of oil offshore of the Gulf of Mexico. There is a substantial amount of gas reserves in the United States. Also there is all kinds of gas reserves that are being developed in Canada from the same type of shales plays.

There is a significant amount of shale resource and type sand gas resource that's available for generating electricity by coal or by firing with gas rather than coal.

We think the proposal by OG&E is a win-win. First of all it reduces

emissions.

Second of all it puts people to work, drilling and completing wells.

Once those wells are on stream and produces gas and that gas with subsequent productions tax. That tax goes to the State of Oklahoma and to the other states where it is produced. So we strongly support OG&E's alternate proposal and appreciate the time given us. Thank you.

MS. BOTCHLET-SMITH: Thank you, Mr. Smette.

Bud, have you reconsidered? I don't have any other formal comment notices here. Does anyone else in the public have a desire to speak at this time?

Our hearing was advertised to -- until noon today. We will have staff here to take comments. I suggest we take a five minute break for our Court Reporter and those of you who want to stay around or if you want to reconsider comments, this would be a good time to fill those forms out. So we'll take a five minute break.

(Break)

MS. BOTCHLET-SMITH: Okay. We are reconvening the hearing of the DEQ Public Hearing for the Regional Haze State Implementation Plan.

During our break we had no others that indicated that they wanted to make an oral comment. However, we did receive two written comments. One written comment from AEP and a written comment from Western Farmers Electric Cooperative. Those are being provided to our Court Reporter and they will be entered into the record as a written comment. Neither of these companies wished to make oral comments at this time.

It is now 12:00 noon and this concludes our hearing. And as I said before, no other commenters presented a desire to comment on the rule.

REPORTER: Okay. Court Reporter closes it at 12:00 noon.

(Hearing Concluded)

C E R T I F I C A T E

STATE OF OKLAHOMA)
) ss:
COUNTY OF OKLAHOMA)

I, CHRISTY A. MYERS, Certified Shorthand Reporter in and for the State of Oklahoma, do hereby certify that the above hearing is the truth, the whole truth, and nothing but the truth; that the foregoing hearing was taken down in shorthand by me and thereafter transcribed under my direction; that said meeting was taken on the 16th day of December, 2009, at Oklahoma City, Oklahoma; and that I am neither attorney for, nor relative of any of said parties, nor otherwise interested in said action.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal on this, the 17th day of December, 2009.

CHRISTY A. MYERS, C.S.R.
Certificate No. 00310