

1 USDA AGRICULTURAL AIR QUALITY TASK FORCE MEETING
2 RESEARCH TRIANGLE PARK, NORTH CAROLINA

3

4 Thursday, September 30, 2010

5 **USDA Agricultural Air Quality Task Force meeting was called to order by Jeff Schmidt,**
6 **NRCS, Acting Designated Federal Official, on the above date at the U.S. Environmental**
7 **Protection Agency, 4930 Old Page Road, Research Triangle Park , North Carolina.**

8

9 **Opening Remarks**

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11 Ginger Murphy welcomed the Task Force back and opened the meeting.

12

13 Jeff Schmidt addressed a few logistic issues.

14

15 **USDA Farm Energy Audit Initiative**

16

17 Ms. Murphy introduced Dr. Andrea Clarke, NRCS Management Analyst. Dr. Clarke's topic
18 focused on on-farm energy audits. She gave background on Title II and Title IX of the 2002
19 Farm Bill, highlighting the key forces influencing on-farm energy audits. Dr. Clarke proceeded
20 to go through the Copenhagen Memorandum of Understanding and the energy audit distribution.
21 Obstacles listed were that many producers were not made aware of the benefits and savings, and
22 when they are, they can be hesitant or unable to absorb the financial costs. Parts of the FY2011
23 EQIP (Environmental Quality Incentive Program) On-Farm Energy Audit Initiatives include \$5
24 million committed to actively developing an Agency Implementation Plan. Dr. Clarke stressed
25 the importance of partnerships.

26

27 Mr. Avant asked about the slide on Title IX Energy Grants and how the Chief's \$5 million
28 coordinate with each other. Dr. Clarke stated the farm bill is new for rural development and it
29 was prompted because there were not a lot of companies that do agricultural audits. The plan is
30 that a producer could go to a farm service office and get an audit, but NRCS wants to make sure
31 it is of a standard quality. Mr. Avant questioned the TSP (Technical Service Provider)

1 requirements and training. NRCS employees do not provide energy audits. It was recommended
2 by Mr. Avant that Code 374, ASABE standard X612 be referenced. In reply, Dr. Clarke stated it
3 is referenced in 122, Ag Energy Management Plan.

4
5 Mr. Cunha brought up farm equipment audits and greenhouse gases in states such as California,
6 and commented that it needs to be clear to farmers and consultants on the exact regulations. Dr.
7 Clarke agreed that the renewable energy world has some problems with implementing
8 recommendations and who producers can trust. Mr. Cunha recommended that NRCS work
9 closely with California because of the proposed regulations coming out on farm equipment.

10

11 Mr. Avant pointed out that if a professional engineer has a financial interest in a
12 recommendation, it is grounds for loss of license. He would not be surprised to hear that some
13 are selling snake oil. He believes if there is not a conflict of interest statement in the
14 recommendations, there should be, so a salesman cannot sell and install the equipment. Dr.
15 Clarke agrees with Mr. Avant and will look into their criteria.

16

17 Doug Shelmidine, has seen various qualities of audits. A challenge that he runs into is
18 oftentimes he will identify areas that need to be changed or modified or see a specific
19 recommendation of a particular product, but it is difficult to quantify how energy efficient the
20 product is. Dr. Clarke said it is a whole other area that needs to be studied.

21

22 **PM Sampling Issues**

23

24 Dr. Michael Buser, Oklahoma State University, Biosystems and Agricultural Engineering
25 Department, was introduced by Ms. Murphy. He started off giving perspective to the things he
26 has looked at over the years. He gave statistics on theoretical ratios and stack sampler
27 performance criteria. Mr. Avant questioned the standards and Dr. Buser acknowledged that he
28 can impact the flow by increasing or decreasing the numbers by how they run the tests. He
29 presented the field evaluation results to the Task Force and the errors associated with PM and
30 Ambient Stack Samplers. Some recommendations given were to develop alternative ambient

1 and stack sampling methods, develop Ambient PM10 and PM2.5 Sampler Placement guidelines,
2 and develop dispersion modeling correction factors for low level sources.

3
4 Mr. Avant wanted Dr. Buser to comment about ARS (Agricultural Research Service) and the
5 future of the program. Dr. Buser is still very much a part of the group from Lubbock, Texas and
6 committed to using the resources to answer questions. Mr. Avant believes this is some of the
7 most important air quality sampling work in the country and needs to be continued. A question
8 came from Mr. Isom in regards to what has happened in the last eight months with regards to
9 EPA. Dr. Buser stated that there were comments back and forth, and they hope to move forward
10 soon.

11
12 Dr. Robert Vanderpool, EPA, Aerosol Research Engineering, Process Modeling Research
13 Branch, Human Exposure and Atmospheric Sciences Division, gave a presentation about EPA
14 Federal Reference Method sampling. He has an interest in airborne particles and is devoted to
15 the dynamics of how to sample and characterize them in the atmosphere. Dr. Vanderpool felt
16 that he did understand the Task Force's concerns and is willing to work with USDA. He first
17 gave background information. Next, he described the characteristics of ambient particulate
18 matter. He stated that sampler performance cannot be described through use of a step function.
19 Slides were presented that showed the effects of particulates on the human body. Dr.
20 Vanderpool described oversampling in detail and gave examples on what Dr. Buser and others
21 are doing, along with methods used and problems with each.

22
23 Dr. Norman made a comment that the presentations were similar to the presentations in January
24 at a separate meeting at EPA-RTP. He noted the differences between the two presenters and
25 asked how to get together and prove out Dr. Buser or Dr. Vanderpool. Dr. Norman wondered
26 how 1% can move 99%. Dr. Vanderpool stated it cannot, but he is demonstrating that accurate
27 numbers and math have to be used. If you underestimate or overestimate mass concentration,
28 you're going to underestimate or overestimate the perceived bias. Dr. Vanderpool announced
29 that he would like to work in conjunction with Dr. Buser. Dr. Norman said the Task Force left in
30 January requesting that the tests needed to be done, a protocol set and back and forth

1 communication between agriculture researchers needed to be done. He noted a lack of
2 understanding on how the sampling and the data were being used in the regulating arena.

3
4 Ms. Shaver had a question about the wind tunnel evaluation slide; Are there data that the EPA
5 has to show the model is working with various diameters? Dr. Vanderpool stated that is correct.
6 Are there data regarding PM larger than 25 micrometers? Dr. Vanderpool responded there are
7 not, but it would be another area to collaborate. Mr. Avant is concerned about implementation
8 and feels like the EPA is passing the buck and believes that implementation is a key issue to
9 make sure that the sampling is done correctly and appropriately.

10

11 **Public Comment Period**

12

13 **There were no comments made by the public.**

14

15 General discussion by Dr. Bill Norman addressed the source definition issue in front of the Task
16 Force. He noted the definitions are already encompassed in EPA regulations, including the Oil
17 Definitions from 2006. Mr. Avant points to the documents distributed on September 29, 2010
18 from 2005 and 2006 that provide information to the EPA, and let Ms. know they may be helpful.

19

20 **USDA Agency Reports**

21

22 Dr. Kent O. Burkey, Plant Physiologist, provided an update of the USDA-ARS and spoke about
23 his research in Raleigh. He started with listing recent activities the USDA has been involved in.
24 Dr. Burkey then spoke about the latest climate change research in detail.

25

26 Pete Lahm, Acting Assistant Director for Fire Ecology and Fuels, presented the Forest Service
27 update. His team has been focused on wildlife and management strategies. The strategy is led
28 by Wildland Fire Leadership Council. Their goal is to address three areas: landscape restoration
29 and maintenance, response to fire, and fire-adapted human communities.

30

1 A question was raised by Mr. Avant in regards to whether the black smoke issue trumps the
2 management issues for burning and will it affect how the forest is managed. Mr. Lahm
3 responded it could. Black carbon in the Arctic is significant, and there is research moving
4 forward to see how the carbon moves from the United States to the Arctic. Mr. Avant followed
5 up on a cost benefit versus burning and the carbon in the Arctic. Pete stated they are looking at
6 risks, but may not make it as far as black carbon.

7
8 Ms. Shaver wondered if the Forest Service has a list of fire-dependent species and when do they
9 start looking at things holistically. Mr. Lahm answered there is a fire-dependent list of species
10 on a joint Forest Service effort for research. Secondly, looking at the regulations, there are a
11 number of maps that show 80 million acres of land falling into non-attainment, and the forest is
12 the largest. He is not certain how they will get through the regulations; it is a huge issue and
13 challenge. Mr. Baise would like Mr. Lahm to put the 80 million acres in context. Forest Service
14 is 193 million acres of the 400 million that is Federal land, was the answer. Mr. Baise then asked
15 what is the amount of public versus private land, where do the most fires occur, and where are
16 the most prescribed burns. Mr. Lahm was not prepared to answer the question at this time. The
17 large acreage fires are Federal. Mr. Baise asked if that would suggest something about the
18 tonnage loads. Absolutely, was the response from Mr. Lahm. Mr. Avant commented on Ms.
19 Shaver's statement and a word she used, holistic. He would like to recommend that the next
20 Task Force have a committee to discuss the multi-media effects on agriculture.

21
22 Mr. Baise asked if we might want to look at the Wilderness Act, the Roadless Act and the
23 Endangered Species Act and the impact. Mr. Lahm stated that they have looked at the
24 Wilderness Act, but outside of that there are questions. Mr. Cunha stated they need to have
25 agriculture be discussed versus Federal agencies, and spoke of smoke and biodiesel. He
26 proposed to bring back the Agriculture Burn Policy to look at it and discuss it as a major issue.
27 Also, address the economics, feasibility, technology and costs. Dr. Rice stated the question
28 about the smoke was the same issue as on the prairies. The Smoke Committee was more
29 oriented toward examining wildlife management on farms via prescribed burning. The Smoke
30 Committee tries to provide material, approaches, and concerns in the forest and the rangelands.

31

1 **Greenhouse Gases and Bioenergy Subcommittee**

2

3 Dr. Rice was introduced to the Task Force by Ms. Murphy. During conference calls, the
4 Subcommittee came up with a recommendation that paraphrased 2007, 2008, and 2009
5 recommendations, which was included in the Task Force's handouts. Research efforts and
6 greenhouse gas emission recommendations have been acted upon. He addressed the efforts
7 going forward to get measurement standards for GHGs, which have been voted on three times.
8 He noted because of the inaction, several groups have moved forward on standards and several
9 committee members are engaged in those groups. The motion to accept was moved by Dr.
10 Norman. The motion was seconded by Ms. Cory. The motion stands.

11

12 **Climate Action Reserve**

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14 Dr. Rice introduced the next speaker Gary Gero, Climate Action Reserve President and Katie
15 Goldman, Climate Action Reserve Senior Policy Manger. Mr. Gero announced that their
16 organization is one of the largest programs in the United States. He went into some background
17 information on the Climate Action Reserve and what the Reserve's focus is, along with their
18 protocols and projects. They want transparency and to let people know how they make their
19 decisions and getting input from stakeholders in the industry.

20

21 Ms. Goldman stated they are at the beginning stage of the protocol process, step 1 and 2. She
22 went thought the various problems on the broader scale of greenhouse gases and how mitigating
23 one event could have an adverse reaction on another. Ms. Goldman listed the potential project
24 activities the Climate Action Reserve is currently looking at, along with several solutions they
25 are exploring.

26

27 Mr. Isom had three questions for the organization. First, how they came up with the numbers for
28 annual to perennial crops, and did they take everything into account? Have they run into people
29 expressing concern that this system will lead to regulations? Do farms understand there will be
30 permit or deed restriction that is enforceable? Ms. Goldman stated that in regards to question
31 number 2, they have been out speaking to folks and are aware of the concerns. Answering

1 question number 1, she stated they have been working with the scientific community to look at
2 all research outcomes on mitigation potentials. They do intend to write protocols and provide an
3 opportunity for the market to generate offsets. The Climate Action Reserve would like to work
4 with the agriculture community on any solutions that may be needed. Mr. Avant questioned an
5 encumbrance on property through deeds or another vehicle; if they are speaking with farmers and
6 landowners; and in the event of a trade law, will they be prohibited from transferring voluntary
7 credits to mandatory credits. The Climate Action Reserve board is speaking with both farmers
8 and landowners. Within the bills recently in Congress, there were provisions to transfer the
9 voluntary credits into the compliance program. Getting back to the annual to perennial
10 calculations, it was stated that they are still learning about all the data and impacts as they go
11 through the scoping cycle.

12

13 Mr. Cunha wondered why the slides were not changed from the previous meeting held in
14 California to take into account the input they received from some Task Force members and
15 agriculture groups. He listed two topics brought up by groups in California, the permit issue and
16 the issue of legal ownership. The Climate Action Reserve announced that they did receive,
17 understand and appreciate the comments made in California, but they don't have a solution yet
18 which is why the slides were not changed. They are starting the process of getting input from
19 stakeholders and developing alternative solutions. Ms. Cory acknowledged the comments made
20 by Mr. Cunha and what the Climate Action Reserve is doing to receive input.

21

22 Dr. Rice asked Ms. Goldman if they addressed the issues related to tillage surveys. In response,
23 she announced that they would like to stick with standardized reporting, but they are also
24 working on other options they might consider. Mr. Baise commented that in October the group
25 is not going to get farmers to attend the meeting in Chicago because they will be busy with
26 crops. He mentioned that he would like the group to stop speaking European to them and use
27 American terms when speaking about agricultural practices in the United States – units of acres
28 not hectares. Finally, he stated if they force crop rotations they will force farmers out. Ms.
29 Goldman explained that they are trying to hold meetings in places where farmers will want to
30 come, so they can get farmers or groups that represent farmers.

31

1 Mr. Rogers wanted to know if there was a carbon program in the Midwest that producers are
2 participating in. It was reported that they are looking to develop standards in a way that
3 encourages transfers to their program.

4

5 **USDA Climate Change Update**

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7 Bill Hohenstein, USDA Global Change Program Office, Director, was introduced by Dr. Rice.
8 Mr. Hohenstein started off by stating that climate change was one of the Secretary's top
9 priorities. They are looking across the board in agriculture when it comes to climate change and
10 the implications. All crops are being evaluated into the next 30 to 50 years. One goal is to
11 improve rural communities and their greenhouse gas emissions. They are also looking into the
12 option of biofuels, which is a priority for the Secretary. Mr. Hohenstein spent time going over
13 their guidelines for greenhouse gas emissions. An important part is to receive input from
14 stakeholders to move forward.

15

16 Mr. Avant asked Mr. Hohenstein if a farmer benefits from the program, would they be required
17 to submit data to get benefits. Mr. Hohenstein stated he has not been involved in the farm bill
18 negotiations, so he has not heard of that issue. His group was told to develop technical
19 guidelines, which they have done. The process would be voluntary, not mandatory. Mr. Avant
20 was also worried about the farmer's confidentiality, if they joined the program. The USDA will
21 work with farmers on what the best practices will be in regard to their data and keeping
22 everything confidential that needs to be.

23

24 Moving forward in his presentation, Mr. Hohenstein stated that his team was looking at how
25 to address biogenic emissions of CO₂. After going through some background information, he
26 stated the call for information on what criteria the EPA might use for accessing emissions closed
27 on September 13, 2010, but still encouraged the members to submit ideas to the Chief.
28 Conversation was had among Task Force members as to when the Task Force expired, and if
29 they could take action. A conference call was suggested to come up with guidance that would be
30 provided to the Chief in regards to the call for information.

31

1 Dr. Xin expressed concern with the potentially very dangerous path they are going down (with
2 respect to regulating biological emissions, such as animal respiration), one which he feels will
3 hurt farming operations. Mr. Martin agreed with Dr. Xin and asked the USDA to review the
4 three White Papers that were adopted on September, 29, 2010 by the Task Force.

6 **Technical Working Group on Agricultural Greenhouse Gases (T-AGG) Update**

8 Dr. Lydia Olander, Nicholas Institute, Duke University, Senior Associate and Director for
9 Ecosystem Services, was the next speaker. She discussed the various groups involved in the
10 working group. Next, she provided background information and items the group was
11 considering. She listed several mitigation activities considered, including the methods used to
12 reach those concentrations. She discussed their quantification of net GHG changes. As far as
13 implementation and accounting feasibility are concerned, they need to establish a baseline, have
14 monitoring, discuss leakage and also reversals.

16 Mr. Isom questioned who the production agriculture group was working with. 25x25, T-AGG
17 and a few other individuals. The funding comes from NRDC (Natural Resources Defense
18 Council) and the Packard Foundation. Mr. Isom questioned how often sampling would be taken.
19 For carbon sampling maybe once a year or once every other year. How many samples per acre
20 would depend on the soil type. A reference was made to how the Canadians sample their soils.
21 Mr. Cunha stated that the Task Force should be advising the working group, not NRDC.
22 Secondly, he feels that with all the rules and regulations being proposed, the farmers are going to
23 go out of business because the expenses will be too high for them to make a profit. Dr. Olander
24 responded that she would welcome input from the Task Force. In regard to NRDC, she stated
25 that they do accept funding, but NRDC does not have input into their process making.

27 Ms. Cory reiterated to the group that the reason for inviting Dr. Olander was to give the group an
28 update and let the Task Force have input into the process. A challenge was made to Ms. Cory to
29 gather groups from around the U.S. and hold a meeting. Dr. Norman pointed out with all that the
30 Task Force has on their plate, there are higher priorities for the Task Force to focus on.

31

1 **Subcommittee Recommendations**

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3 A motion was made that the Task Force’s Greenhouse Gases and Bioenergy Subcommittee
4 continue their work and provide guidance to the Chief on the biomass request for information
5 that the EPA has on the table. Provide guidance back to the Chief for his consideration, which
6 will be sent to the Secretary then on to the EPA. Mr. Rogers seconded the motion. The motion
7 stands.

8

9 Mr. Avant suggested that a conference call be scheduled within the next 10 days.

10

11 Mr. Baise added dates to two documents on definitions handed out by Mr. Avant, 2004-2005
12 and March 2nd, 2006. He suggested a Task Force review the definitions, as it relates to section 3.

13

14 Mr. Martin, reporting on behalf of the Reactive Nitrogen Committee, referred back to the term
15 “fertilizer” listed in the USDA Air Quality Task Force Recommendations document discussed on
16 September 29, 2010. Where appropriate, they stated manure and commercial fertilizer. Under
17 Land Application, he updated that to state Land Application and Commercial Fertilizer and
18 added a bullet point section for commercial fertilizer. The recommendation listed on the final
19 page of the document was moved to the front. Mr. Martin provided a motion to approve. The
20 motion was seconded by Mr. Avant. The motion stands.

21

22 Mr. Isom read into the record the Air Quality Task Force’s position on the PM revision, and it is
23 the Task Force’s recommendation to the Secretary to communicate with the EPA and keep the
24 current PM Standards. The motion was seconded by Dr. Norman. The motion stands.

25

26 Mr. Avant asked Dr. Rice to circulate the EPA Request for Information to everybody on the
27 committee.

28

29 **2008-2010 Task Force Charter Wrap-up**

30

1 Ms. Murphy thanked the Task Force for forgiving her errors and omissions. She feels that the
2 Task Force has a great influence over policy and decision makers. She thanked the speakers and
3 different groups in the room for attending and extended appreciation to those that assisted in the
4 meeting. The Secretary would like NRCS and the USDA to work more closely with the EPA on
5 behalf of agriculture to inform them about the needs of agriculture and farmers. She sent a
6 special thanks to two Task Force members retiring and present today, Mr. Baise and Mr. Isom.

7

8 **Adjournment**

9

10 Ms. Murphy adjourned the AAQTF meeting on September 30, 2010.

11