

USDA Agricultural Air Quality Task Force (AAQTF)

AAQTF Meeting Notes – Knoxville, Tennessee

Wednesday, April 22, 2015

(Note: Q=Question, R=Response, C=Comment)

Call to Order:

Greg Johnson, AAQTF Designated Federal Officer (DFO) called the meeting to order at 8:12 am EDT. He offered special thanks to Robert Burns for hosting the AAQTF and to Cindy Tietz for all her assistance. The meeting is being recorded. Public comment period is tomorrow and a sign-in sheet is on the table.

Opening Remarks and Introductions:

NRCS Chief Jason Weller welcomed the AAQTF and announced that this is the final meeting for this task force, thanking everyone for their voluntary efforts. The new task force will begin soon after this one, as a notice will be released in late May. There is a 45-day open application period and selections will be made over the summer. The first meeting with the new task force is planned for early October 2015. The AAQTF is providing great input for the USDA and he is looking forward to today's agenda.

Welcome to the University of Tennessee (UT):

Larry Arrington, Chancellor of UT Institute of Agriculture, welcomed the AAQTF members to Tennessee. He provided an overview of the UT education system, noting that the Institute of Agriculture operates two colleges: College of Agriculture and College of Veterinary Medicine. The UT Extension remains committed to county level model due to vast geographic differences within the state. He also shared information about their Agricultural Research Centers. He is pleased the AAQTF is in Knoxville and appreciates that activities are focused on science-based solutions.

Welcome to Tennessee and NRCS:

Kevin Brown, Tennessee NRCS State Conservationist, welcomed the AAQTF members to Tennessee. He explained what the three stars on the state flag symbolize, each star represents the natural topographic and culture divisions of the state as "East", "West" and "Middle" Tennessee. Accompanying him is Kurt Simon, NRCS Area Conservationist. He never passes up the opportunity to talk about Soil Health. In his 39 years with the Service, he continues to experience "Ah Ha!" moments. He spoke on Soil Health in Tennessee ([see presentation slides](#)) and shared how Tennessee has abundant natural resources and a long agricultural history. He expressed his concerns over expanding and conflicting environmental, land use, and food production priorities and challenges.

Chief Weller wrapped up the soil health discussion by noting the air quality and soil sequestration benefits, including reductions in diesel fuel consumption for equipment, and less fugitive dust emissions. A lot of interplay with ammonia and carbon.

Review of Fort Collins Meeting Recommendations, and Approval of Meeting Minutes:

Greg Johnson opened the floor to discuss the Fort Collins meeting minutes for review and discussion. The minutes are posted on the AAQTF's website ([see meeting notes](#)).

No comments from the AAQTF members. Kevin Abernathy made a motion to accept the minutes and Cynthia Cory seconded his motion. The minutes were approved by unanimous vote.

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USDA NRCS Update:

Greg Zwicke, Air Quality Engineer with the NRCS Air Quality and Atmospheric Change Team, provided the USDA NRCS update ([see presentation slides](#)). Covered topics include:

- National Air Quality Initiative (NAQI): Significant changes where funding assistance is no longer limited by nonattainment designation. Funds may be applied towards true air quality resource concerns. Ten states applied for NAQI under three funding pools: National Nonattainment (California and Arizona); Regional Air Quality (Delaware/Maryland and Oklahoma/Texas); and State Air Quality (California, Colorado, Oregon, Pennsylvania, and Washington).
- Regional Conservation Partnership Program (RCPP): Three projects with air quality as the primary resource concern.

C – Chief Weller interjected by mentioning that the first round for RCPP funding will be released in early May with projects awarded in the fall. To date, 115 applications have been reviewed and approved.

Q – Lara Moody: Is there additional detail available so the process can move more smoothly in the next round?

R – Chief Weller: Trying to learn from previous experiences. Specific questions or concerns should be presented to the team. Webinars will be provided.

- Conservation Innovation Grants (CIG): \$20 million total with \$10 million in the Natural Resources Pool that includes Air Quality. Also looking at environmental markets and finance for greenhouse gases, water, and impact investments in working lands conservation. Pre-proposals have been approved and full proposals are due April 30th.
- Greenhouse Gases and Carbon Sequestration: USDA is developing a climate change mitigation action plan in preparation for the Paris climate change negotiations in December 2015. Leveraging partnerships to achieve emission reductions and increase carbon sequestration. One example since the last AAQTF meeting is release of COMET-Planner for work in California.

C – Chief Weller: Secretary will be in Michigan tomorrow to release the USDA Mitigation Plan.

- National Air Quality Site Assessment Tool (NAQSAT): On March 12, 2015, NRCS National Instructions NI-190-309 was published by announcing that NRCS conservation planners will begin utilizing the NAQSAT model for evaluating air quality resource concerns for all livestock and poultry operations by the end of the 2015 calendar year.
- NRCS Conservation Practice Standard 376 - Field Operations Emissions Reduction: Piloted in California as Interim 756, was finalized and approved as a national standard in March 2015.
- USDA-EPA Ammonia & Agriculture Workgroup: Working on case studies to better characterize emissions from agricultural sources in EPA models. Discussions over ammonia mitigation strategies for land applications, animals and feed, and animal housing and manure management systems.

C – Bill Angstadt: First, thank you for applying NAQI funding for Maryland and Delaware. Maryland has a cap and trade program and is interested in cropland practices that benefit carbon.

Q – Angstadt: Second, there was discussion at the last meeting over Resource Stewardship Program. Are there any updates to the matrices and eligibility thresholds?

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R – Chief Weller: It's called a Resource Stewardship Plan (RSP). Research planning integrates all tools we have available into a single conservation plan. "Precision Conservation" is being piloted in 12 states where preliminary feedback indicates that producers really like this approach. In California, there will be a new testing and learning phase with specialty crops. We're identifying the barriers for the Conservation Stewardship Program (CSP) and learning that tools might need adjustments. The goal is to have a more streamlined CSP process next year.

C – Angstadt: In New Jersey, placing all the tools into one suite and narrative on quantification was somewhat intriguing. EPA Region 2 Administrator made a comment that we now have a line between good farmers and bad farmers.

R – Chief Weller: This is concerning and not the intent of the RSP.

C – Angstadt: Third point is on RCPP. Partners are challenged with uncertainty on whether practices will work. How is there accountability of significant contribution? There needs clarification on leveraging. How will technical assistance be delivered to soil conservation districts and field offices? Partners have different perspectives than what the USDA and educational institutions have. He recommends guidance be available before the next round of proposals.

US Forest Service Update:

Bill Jackson, Air Resource Management Specialist with the USDA Forest Service, presented some of the tools and challenges with fuel management and prescribed fire in the region ([see presentation slides](#)). He discussed the use of models and dispersion tools in prescribed fire. About 1.1 million acres are treated annually in the South by prescribed fire. He also discussed the amount and impacts of base cations in the forest soil. Though sulfur deposition has improved in recent years, the many years of sulfur deposition has changed soil chemistry.

Q – Brenton Sharratt: How is soil protected from erosion after a prescribed fire?

R – Jackson: Burns only consume a couple layers, so there is still a lot of organic matter remaining. Have not experienced any erosion problems.

C – Kevin Brown: Tennessee NRCS initiated its Shortleaf Pine Initiative by creating a savannah-type of ecosystem with prescribed fire. Exclusion of fire is the problem as fuels build-up. Mimicking Mother Nature helps prevent massive wildfire problems.

R – Jackson: Agreed. Natural lightning strikes and native people were helpful in ecosystem management. Today, the concerns are over the build-up of fuels around homes in interface areas and for those who put out those fires.

Break at 9:51 AM ET.

Convened at 10:19 AM ET

EPA Agricultural Counselor Welcome:

Ron Carleton, Agricultural Counselor to the EPA Administrator, introduced the EPA team members in attendance at the meeting. He is excited to be at the AAQTF. This is a new assignment in his career, as he has been in this position with EPA for about 3-1/2 months. He shared some background on his previous work in Colorado with developing their inspection and cultivation program for industrial hemp. He sees his role as doing outreach to the agricultural community and as a voice within EPA to take back agriculture community concerns. Issues he has seen:

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- Proposed Waters of the United States (WOTUS) Rule: Has received over 1 million public comments. EPA is working through the issues and will possibly make revisions to the rule, especially to those with the agricultural community. The draft rule has gone to OMB and is now in Interagency Review. EPA and the Army Corps of Engineers will publish final rule late spring or early summer.
- Renewable Fuels Standards. EPA did not meet their 2014 target, so a schedule has been set-up to bring this program back on track. June 1st has been selected for 2014-16 proposal targets, which will be finalized by the end of November 2015.
- Pollinator Health: The President established a White House Task Force on pollinator health. EPA and USDA co-chair this task force to provide recommendations on a variety of topics, including pesticides, habitat, and pests. Expedited review for approving products for pests.
- Manure and Nutrient Management: EPA is tracking closely. A number of water quality issues in Toledo due to algal blooms in Lake Erie. Similar issues in Iowa. Litigation in Yakama Valley over manure management issues. Maryland over their phosphorous management plans.
- Pesticides with Marijuana: The marijuana industry in Colorado and Washington are discussing how to approve and manage risks from pesticide application.
- Science Advisory Board (SAB) Agricultural Committee: The 2014 Farm Bill directed EPA to develop agricultural representation with the SAB to assure agricultural interests are adequately considered. The nomination period closed on March 30th and EPA is evaluating a large number of nominations over the next few months. The Administrator will select qualified candidates later this year.
- Farm, Ranch and Rural Communities Committee (FRRCC): Formed in 2008, this committee is tasked with providing information and policy to the Administrator on a variety of issues. The committee has been dormant for a couple years, but this past January in Washington D.C. soil health was a major topic as being important for air and water quality. The FRRCC plans to explore where EPA may have a greater role with soil health. Wayne Honeycutt and others from USDA attended the last meeting. EPA with collaboration with the FRRCC continues to work on a soil health component. The next meeting is planned for this fall, probably in October 2015. Discussion over a joint meeting with the FRRCC and AAQTF. Since the FRRCC has just been revived, they need time to get established and decide how to move forward. There will be opportunities for a joint meeting.
- Ozone, PM and Ammonia: Will refer to Robin Dunkins.

C – Bob Avant: Thank you for attending. There is a lot of value in having this opportunity for dialogue. As a new task force constituent, I encourage you engage and continue to participate with the AAQTF. I appreciate your time for being here.

R – Carleton: I'm happy to be here. Agriculture and EPA intersection is not always positive, but there are opportunities for finding solutions together. The exchange and dialog with this task force is appreciated.

C – Cynthia Cory: There is a huge problem in California over pesticide and water impacts from the illegal cultivation of marijuana. Legalization is bound to happen.

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R – Carleton: Don't know what the answer will be, but there needs a change in Federal law. More states are heading toward legalization, so how do we deal with pesticide use? It's not just a water quality issue, but also a public health issue.

Q – Bill Herz: Agriculture has expressed concerns about the WOTUS rule. Agricultural lands are working lands, but mining operations are also working lands. Can you provide any clarity in how the rule will apply toward mining properties and fence line impacts?

R – Carleton: Can't provide much detail as this point because it's still in the rule making process. The Administrator is trying to achieve greater certainty on what is covered in this rule and wants to move forward with what she believes will be a good and balanced rule.

Air Quality Regulatory Update from EPA:

Robin Dunkins, Group Leader of the Sector Policies and Programs Division within the EPA Office of Air Quality Planning and Standards, provided a slide presentation over the following topics ([see slide presentation](#)):

- National Ambient Air Quality Standards (NAAQS): Provided review schedules and status updates for each of the six criteria pollutants. Summarized the 2008 8-Hour Ozone NAAQS over the litigation results and rule implementation, area designations, and the State Implementation Requirements rule. Updates on the proposed 2015 8-Hour Ozone NAAQS. Three public hearings were held where over 400 individuals testified representing a variety of positions over the proposal. EPA has received over 400,000 public comments. No decisions yet on what the standard may be, but the final rule is expected to be in place by October 1, 2015. Summarized the PM_{2.5} NAAQS and State Implementation Plan (SIP) actions.
- Animal Production: In April 2011, EPA was petitioned to regulate ammonia as a criteria pollutant. Court cases are seeking to compel EPA to list ammonia and hydrogen sulfide as criteria pollutants and include Confined Animal Feeding Operations as a source category. Regarding the National Air Emissions Monitoring Study (NAEMS), the SAB recommended EPA analyze as much of the data as possible to develop Emissions-Estimating Methodologies (EEMs).
- Biomass: On November 19, 2014 EPA released a 2nd draft of the *Framework for Assessing Biogenic Carbon Dioxide (CO₂) from Stationary Sources*, for further review. EPA also released a memorandum that describes the current thinking pertaining to biogenic CO₂ emissions in the context of the Clean Power Plan (CPP) and the Prevention of Significant Deterioration (PSD) program.
- EPA's FRRCC: Ron Carleton already talked about the FRRCC. The next meeting is tentatively scheduled for October 2015 in Denver, Colorado.
- Farm Bill SAB Agriculture Committee: Ron Carleton also discussed the SAB Agricultural Committee. EPA's Office of the SAB, Office of General Council (OGC) and Agriculture Counselor are working on establishing this committee. The nomination process closed recently.
- Regional Activities:
 1. EPA finalized approval of the San Joaquin Valley SIP credit for incentives rule (Rule 9610).
 2. The San Joaquin Valley Air Pollution Control District (SJVAPCD) Governing Board adopted a plan for attaining the 1997 PM 2.5 standards under Subpart 4 and is requesting an attainment date extension until 2020.

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- Additional Agency Activities:
 1. Grain Elevators New Source Performance Standard (NSPS): The comment period closed on December 2014.
 2. Phosphoric Acid and Phosphate Fertilizer residual risk and technology reviews (RTR): Comment period ended on January 21, 2015 and the final rule is due for signature on July 21, 2015.
 3. Carbon Pollution Standards for New, Modified and Reconstructed Power Plants and Clean Power Plan for Existing Power Plants: EPA will issue final rulemakings for new, existing and modified and reconstructed power plants in mid-summer 2015.
 4. Renewable Standard Fuel: A proposed consent decree in litigation will establish a schedule for issuing Renewable Fuel Standards for 2014 and 2015. By June 1, 2015, EPA will propose volume requirements for 2015. By November 30, 2015, EPA will finalize volume requirements for 2014 and 2015 and resolve a pending waiver petition for 2014. Not part of the litigation, EPA plans by June 1st to re-propose volume requirements for 2014 that reflects the volumes of renewable fuel actually used in 2014 and to finalize the 2016 standards.
 5. Reciprocating Internal-Combustion Engine National Emission Standards for Hazardous Air Pollutants (RICE NESHAP) Reconsideration: EPA is not considering any changes to the RICE NESHAP.

Q – Annette Sharp: States often do not receive a blueprint for implementation until after they've submitted their SIPs. Can EPA provide guidance for consistent implementation of SIP review by the EPA Regions?

R – Dunkins: Will take that back to the office.

Q – Sharp: Does "iSIP" refer to an "Infrastructure SIP"?

R – Dunkins: Yes

C – Sharp: Need to figure out what is involved with that. Can you send information to the AAQTF?

R – Dunkins: Yes

C – Sharp: A concern is over the PM2.5 Implementation Rule and the use of the 2011 National Emissions Inventory. Ammonia and dust have substantial program requirements, yet the SIP doesn't indicate anything with the NAEMS for those who must demonstrate why or why not ammonia is part of the SIP process. The 2011 inventory attributes over 3 million tons per year of ammonia from agriculture. There is limited data applied in the quantification of agriculture's ammonia inventory. Thank you for taking this back with you.

C – Bill Herz: Concerns over the Next Generation Policy emanating from EPA's enforcement office over PM10 fence-line monitoring in Regions 4 and 5. EPA has broad authority under CAA 114 requests and has issued several by requiring facilities to install PM10 monitors at the fence-line. A facility with a history of violations is one thing, but this is something affecting small facilities and agricultural operations.

R – Dunkins: Not familiar with these requirements. Will take back and follow-up.

Q – Bob Avant: Ammonia is not currently a criteria pollutant. Does EPA have the authority to add a pollutant such as ammonia to the NAAQS?

R – Dunkins: Yes, EPA has the authority under the Clean Air Act via the process in CAA 108 over Endangerment Findings. This process is somewhat similar to CO₂.

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Q – Annette Sharp – Does EPA intend to update guidance on how to address SIPs for ozone and/or PM2.5 as standards are lowered?

R – Dunkins: EPA is constantly reviewing regulations, including for air toxics and how these reductions can help. Overall, there are a number of new rules that may help states with implementing their SIPs.

Q – Kevin Rogers: Can we have a copy of your slides?

R – Dunkins: Yes

C – Rogers: Update on Arizona activities. The Cow Town ambient air monitoring site in Arizona is in the process of being relocated to another location. Pinal County is moving toward a PM10 and PM2.5 regulation where Best Management Practices (BMPs) are being developed for farmers and meetings have been held to finalize reporting forms, similar to that of the San Joaquin Valley. Kerry Drake from Region 9 came to assist and talk it through. The better the data, the better the modeling... if data isn't available then we can't do affective modeling. He is interested in receiving a copy of the Conservation Management Practices (CMPs) from California. The partnership and expression of appreciation went to Robin. An invitation was extended to Ron Carleton.

Q – Robert Burns: Informed last week of litigation reopening the CERCLA/EPCRA issue with animal feeding operations. Are there any additional details?

R – Dunkins: Has no information on this issue. This is at the General Counsel's office and she cannot discuss this topic at this time.

C – Bill Norman: Appreciation expressed to Robin for providing such a thorough update as always. Also appreciates Ron Carleton for attending the AAQTF meeting. Sought clarity on the PM2.5 nonattainment from the presentation. Does it mean that the areas in blue color are in nonattainment of the 1997 PM2.5 NAAQS and in attainment with the later standards? Atlanta and St. Louis appear to be in nonattainment of the 1997 standard and in attainment of the more stringent later standards.

R – Dunkins: Yes, but the 2006 NAAQS is different.

Q – Norman: Realizes that, but aren't the newer standards supposed to represent a better understanding of what the standard should be? Why do states need to address multiple iterations of a standard if we have newer versions?

R – Dunkins: Standards don't automatically go away. It depends on the situations. A state may not have necessarily addressed all the issues with requesting re-designated, even if the data reports attainment.

Q – Norman: Can EPA streamline this process where an area in compliance with the latest, greatest rule is good with the previous rule?

R – Dunkins: Can't ignore the process, but it may be good to take a look at this.

Q – Norman: Thanks for the comments on the joint meetings with the FRRCC and the new term of the AAQTF. This may be the perfect time to get both new iterations of the groups together sooner rather than later.

C – Bill Angstadt: The Pennsylvania Department of Environmental Protection recommended attainment and nonattainment to be based on different years, so that may be an explanation for Norman's questions.

Break for lunch at 12:00 PM ET

Convened at 12:50 PM ET

Tennessee Agriculture and Forestry:

Robert Burns informed the AAQTF that Julius Johnson, Tennessee Department of Agriculture (TDA) Commissioner, is unable to attend because of the State Legislature being in session. In his place is Louis Buck, International and Horticultural Marketing Specialist with the Market Development Division of the TDA, who welcomed the AAQTF to Knoxville and Tennessee and presented a five-minute video with his slide presentation (*see slide presentation*). He shared the Governor's 10-year Strategic Plan that places rural economic development as the major priority. This effort is being implemented through programs such as: "*Ag Launch*", which supports and encourages agriculture and forestry innovation and entrepreneurship; and "*Drive to 55*", which promotes higher education to meet a projection that at least 55 percent of all Tennessee jobs will require some form of post-secondary education by 2025.

Tennessee Air Quality:

Bob Martineau, Commissioner of the Tennessee Department of Environment and Conservation, presented an update on air quality in Tennessee (*see slide presentation*). He shared the agency's core beliefs, noting that economic growth and environmental protection are not mutually exclusive, that money can be saved by eliminating wastes through pollution prevention practices, and the agency's commitment to protecting the environment, supporting the regulated community and working with stakeholders in a customer-friendly way to achieve compliance. Overall, the state is in compliance with the 2008 8-Hour Ozone NAAQS where two designated nonattainment areas are seeking re-designation, which are the Greater Knoxville area and Shelby County. Most of the state is in attainment of the 1997 Annual and 2006 24-hour PM2.5 NAAQS. For those areas currently designated as nonattainment, the state is in the process of requesting re-designation to attainment. The state is implementing their Clean Power Plan for reducing emissions and provided examples. Tennessee is home to Nissan's North American Headquarters and their Smyrna production plants that make both the lithium-ion battery and finished assembly of the LEAF electric vehicle. The Bear Trace Golf Course near Chattanooga received recognition from *Golf Digest* for its use of electric landscaping equipment for saving money, improving the golf experience, and reducing environmental impacts.

Climate Variability Impacts (CVI) Subcommittee Speaker and Discussion

- **Biogenic Greenhouse Gases**

Bob Avant introduced Gregg Marland with the Research Institute for Environment, Energy, and Economics at Appalachian State University, who presented a slide presentation on Carbon Accounting and Biomass Energy (*see slide presentation*). He made a "conflict of interest" statement due to being an active participant under EPA contract with developing plans on biogenics. He can't say too much against the program because of his involvement; however, he does have an advantage that he can say things that EPA staff cannot.

Q – Avant: What is the value of a partial lifecycle analysis? This addresses biofuels, but could the same scenario apply to the production of conventional crops?

R – Marland: Any analysis must examine the complete lifecycle. Comparisons must examine various options. Once one is selected, must examine the complete lifecycle. The same process applies for all bioenergy crops.

Q – Avant: What about a crop that has multiple uses? Say corn used for corn sweetener, which is not an energy crop. Animal agriculture is getting hammered by this.

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R – Marland: Where a crop is grown does not necessarily match where the CO₂ was emitted. Same with electricity use. This is challenging for spatial accounting. Don't know much about animal agriculture.

Q – Chief Weller: Regarding the source component, how does the management of the biomass source matter? Biomass forests versus carbon sequestration?

R – Marland: Would need to perform some regional averages. The challenges with forestry is the long lifecycles involved. The emissions don't always match where the energy is released.

Q – Chief Weller: If you change management practices, you may still get the same biomass, but the total carbon accumulation may increase. What is the net carbon sequestration from biomass?

R – Marland: There should be a credit in this case.

Q – Chief Weller: What will it take to achieve a net-zero affect?

R – Marland: It can be a permanence issue. Your net gain may be there, but it may not measure out at the landowner level. Trees in California and Trees in North Carolina are not the same. If you're harvesting trees you will have a decrease on a plot, but on a landscape or overall forest you may have no change. Must examine the change in stock over the time period. Presumption for crops is that you have no change over time unless you change the soil carbon sequestration.

Q – Bill Norman: In line with biogenic CO₂, when EPA wrote the Tailoring and other rules for carbon, there is an assumption that provisions were made for the regulatory aspects of biogenic CO₂. We now know that this was not the case. Much touches on production agriculture and other sectors, publically-owned treatment works (POTW), breweries, and other activities that emit CO₂. Where do we go from here since the Supreme Court last year considered all CO₂ to be equal? EPA is going to regulate CO₂ and all CO₂, like it regulates all criteria pollutants. I appreciate your well documented presentation, but at the end of the day what does this all mean? You can account for it all you want, but if we're emitting CO₂, we're emitting CO₂. Given these legal aspects, does this trump other means of accounting?

R – Marland: The Tailoring rule does capture the overwhelming majority of CO₂ sources. About 1/3 of all CO₂ comes from 311 point sources (e.g. power plants).

C – Bill Herz: Lots of industries create products that release CO₂. Concrete and lime emits CO₂, but also solidify for centuries. The tailoring rule does not account for this.

R – Marland: It takes a long time for the cement industry to sequester carbon.

- **EPA Biogenic Accounting Framework**

Bob Avant introduced Sara Ohrel with EPA to discuss the Framework for Assessing Biogenic CO₂ Emissions from Stationary Sources ([see slide presentation](#)).

Q – Avant: Where is this all heading? Although this is the framework for biofuels, what about non-bioenergy sectors?

R – Ohrel: Can't answer this question. This is assessed in a larger context for stationary sources only. Some elements could be used, but may not be directly compared. Need to be aware of calculation boundaries.

Q – Avant: Will some fuels be carbon-neutral and others not?

R – Ohrel: Still working on process and policy. Moving in parallel with SAB review. Some questions will likely be resolved by the SAB.

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Q – Annette Sharp: Mentioned natural science model growth, what kind of models are you discussing?

A – Ohrel: Regional examples, a large suite of models that they often use. Some look at landscape view. The Forestry Ag Sector GHG model was used.

Q – Chief Weller: We have a MOU with DuPont and their ethanol facility, ensuring biomass is a net carbon benefit by buying credits from corn croplands. How do they have certainty?

R – Ohrel: If the producers use BMPs to leave carbon in the cropland, they could then account for that. For example, a no till application could likely be carbon neutral. It would need to go through a sensitivity analysis.

Q – Chief Weller: Kevin Brown talked about Soil Health this morning. Tillage, cover crops, soil health, etc. could be configured into the sensitivity analysis. Is this something that is being incorporated into the model?

R – Ohrel: We are not accounting for this within the framework. It can be added into the biogenic landscape attributes, but this was beyond the scope of what we did.

Q – Chief Weller: Because we are focused on stationary sources, to what extent is the modeling focused on indirect effect and inclusion of offsets?

R – Ohrel: Don't account for offsets, but could include as a leakage item.

Q – Kevin Brown: To follow-up on the soil health question, if we increase soil carbon from one to three percent, would that be recognized and counted?

R – Ohrel: Yes, it would add to the total net carbon on the farm.

Q – Cynthia Cory: Have you worked with the Field to Market folks? They are a big effort to work with diverse groups on sustainability issues.

R – Ohrel: I have heard of them, but haven't worked with them.

Q – Greg Johnson: How do you account for wildfire versus prescribed fire? Are fire intervals figured into the framework and the projected baseline?

R – Ohrel: Natural baseline is difficult to account for in modeling. Carbon accounting and historical carbon could change the carbon deficit. However, adjustments can be made for changes in carbon on forest lands due to fire.

Break at 2:58 PM ET.

Convened at 3:18 PM ET

Focus on Ozone Effects, Modeling and Transport

- **Air Quality Update at the Great Smoky Mountains National Park**

Jim Renfro, Air Quality Specialist with the National Park Service (NPS) at the Great Smoky Mountains National Park (GSMNP), provided an overview of air quality impacts in the park ([see slide presentation](#)). Over 10 million visitors come to the park annually and good air quality and views are important. The park is a Class 1 Area where pollutant levels historically have been amongst the

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highest of any Class 1 area in the country. The good news is that air quality is improving. The key to their success includes the long-term continuous monitoring network, targeted research, collaborative partnership with leveraging resources, education and public outreach, and policies leading to emission reduction. The condition of the resource is through the monitoring programs. The Tennessee Valley Authority has significantly reduced NO_x and SO₂ emissions from their power plants by up to 95 percent over the past 15 years. Efforts are being made within the park to reduce emissions through cleaner fleets and fuels, utilizing shuttle transit systems and cleaner electricity, increasing efficiencies in buildings, and restricting mowing and weeding on “Air Quality Action Days”. Ambient ozone has adversely impacted the forests and examples were provided. Discussion over the W126 Index and trends. PM_{2.5} does impact visibility and deposition, with the greatest fraction from ammonium sulfate. With emission controls, the park is seeing reductions in ambient ozone and PM. Acid, ammonia, and mercury deposition continues to challenge the park.

C – Annette Sharp: Requests that NRCS pull together NPS peer-reviewed documents for welfare and plant impacts.

A – Renfro: There is a lot of information on welfare risk and assessment, all have gone into the ozone review documents.

- **Ozone, Methane and Air Quality Modeling**

Joshua Fu, Professor at University of Tennessee, talked about policy relevant to background ozone with transport and trans-boundary air pollution and the climate impacts to future ozone and PM_{2.5} policy ([see slide presentation](#)).

Q – Bill Herz: What happens to the old SIP when a new standard is developed?

A – Fu: They will need to continue to complete those SIPs.

Panel Discussion and Q&A:

Q – Brock Faulkner: Concept of the W126 Index and, in particular, how did we go there? Statistical review of ozone impacted crops that didn’t go anywhere on a secondary standard, until the next generation applied it toward urban areas. Then it was applied toward forest lands. I’m struggling how we can even support W126. If we understand the scientific process, why don’t we come up with a model that estimates plant damage instead of trying to develop a statistical correlation?

R – Renfro: There are multiple scientific camps that know all the factors. Does the W126 Index cover everything? No. For some plants, the majority of uptake through the stoma is at night. The NPS studies show peak and chronic exposure matters. I support the W126 and it is what we got.

C – Kevin Abernathy: If you start with “bad science” to make policy, it’s bad no matter what. This isn’t good science and there is no biological relevance with W126. Just because we find something doesn’t mean it should be the conclusion. We need to be cautious and make sure that it makes sense. We’re dealing with this in California, where we can’t meet the current standard with the ozone background at 50+ ppb. Noted background contributions due to Trans-Pacific transport. The low hanging fruit are long gone. In the San Joaquin Valley, they are looking at shutting down all fossil fuels. As you’ve demonstrated, a major component of VOC is from trees.

R – Renfro: Takes exception to the “junk science” comment. There is a lot of good work from the NPS. In terms of biogenics, we’ve had trees for a long time. W126 isn’t perfect, but it’s better than nothing and it does make some sense.

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C – Bill Norman: Without ample proof, the W126 seems to be forced. This is EPA’s third “bite at the apple” with the secondary standard. The first attempt was related to row crop damage, which showed it wasn’t valid. The second attempt was at trees, which also showed that it wasn’t valid. We were fortunate to have the wisdom of Kevin Percy; read the comments from the 2009-10 AAQTF. There was an alternative model that reported biological relevance, but a seasonally-based secondary standard wasn’t adopted at that time. I repeat Kevin’s [Abernathy] comment, models give me heartache. For 20 years, a cotton gin in New Mexico was denied an operating permit based on modeled data. Actual on-site data proved that the modeling results were incorrect and was determined that the BLM land across the road contributed to PM10 the most. If you have real-world data that says one thing and a model that says another, you must go with the real-world data.

R – Renfro: Agree with that. I observe the data.

R – Fu: Model results are dependent upon inputs. Need to make sure that inputs are correct.

A – Bob Avant: Referred to Slide 15 from Fu’s presentation that reports the average wheat crop production losses due to ozone. The red spot in the US represents the largest wheat producing area in the US. Year 2000 was a big drought. How do we know that the crop losses are ozone related and not associated with the drought?

R – Fu: Model was run in the United Kingdom. Don’t know how to answer the question.

C – Cynthia Cory: Several Californian’s here, so we’re sensitive about ozone. You said that the state doesn’t regulate vehicles, but in California our vehicles are regulated. The San Joaquin Valley has lucrative agricultural operations and we cannot meet a 70 ppb standard. We will have to stay home because we won’t be allowed to drive around. I’m looking at your model with great interest, which suggests a three to five percent contribution from outside North America. In California our models show 60-80% contribution from outside our borders. So we are going to impact our economy by regulating ozone to a large extent is not from North America – Fu: There is transport of ambient air pollutants around the world. Emissions are being reduced in Asia. Europe suggests that the US exports ozone to the European Union. We can provide technology to other countries to lower their emissions. We need to work throughout the world to lower emissions.

C – Cory: I agree. I think these are things we need to focus on before adopting a new standard.

C – Robert Burns: This topic hits home to me. My family was displaced on land that was brought into the GSMNP. Takes exception to ever closing the Park. The Park has never been closed and I hope it never will. The ozone damage is real. I grew-up in these mountains and remember the poor visibility. Had we visited the higher elevations we would have seen the ozone damage. The damage we’re talking about is based on empirical data, the gold standard. The improvement in air quality are due to the regulations in the Clean Air Act. It was great to have good visibility yesterday and you can see the improvements. Great discussion, but don’t leave here and forget that the air has improved dramatically.

R – Cory: Air quality has also improved dramatically, but where do we go from here?

R – Abernathy: From my personal observations, I have a clear view of the Sierra and Coast Ranges. What business and industry have done is tremendous work. The tipping point is where we ratchet down the standards to where we can’t get there. That’s the slippery slope. Otherwise, we end up at a point of no return by implementing unrealistic measures.

Air Quality Standards Subcommittee

- **Proposed Ozone Standard**

Brock Faulkner distributed the comments over EPA's proposal to strengthen the ozone standard last week through the DFO. He summarized them in a slide presentation. He noted that a series of Congressional meetings are occurring over the proposed ozone standard and AAQTF members have been asked to contribute to those hearings. He commented over the uncertainties in health and welfare impacts on weight of evidence and cited some studies, as it is not clear how EPA is using those studies. Other comments were looking at benefits apart from PM2.5, the 2008 ozone standard has not yet been fully implemented, and what are the impacts of the lower standards on the ability to use prescribed fire.

Q – Bob Avant: Does the second bullet point muddy the waters because both are health-based standards?

R – Faulkner: Not sure. Can't use economic impacts to set a standard, but it's widely cited in setting the standard.

No additional comments from the AAQTF members. Cynthia Cory made a motion to adopt the recommendations and Kevin Abernathy seconded the motion. One opposed, all others approved the motion. Motion passed.

- **PM2.5 Implementation Rule**

Faulkner presented slides, mentioning that EPA is accepting public comments on the rule through May 29, 2015. Comments on background and precursor demonstration options, as options will impact the SIP development process. The need to analyze the ammonia emissions inventory and to conduct photochemical modeling. He believes the proposed rule is too general in regards to the precursor demonstration; adding that flexibility is nice, but leads toward uncertainty in resource allocation, regional consistency and administrative consistency. Perhaps support concepts of sensitivity analysis and looking at precursor analysis in nonattainment areas only. Perhaps question concepts of differentiation of filterable and condensable PM2.5 without extensive speciation data, and the differentiation at the f-digit NAISC code level (use 5-digit code for agriculture).

Q – Kevin Rogers: I know this committee has a lot of diversity. How did they come up with this?

R – Faulkner: Contacted a number of experts from the subcommittee and had conversations with several air regulatory agencies in California and the Midwest, gathering issues that came-up consistently. Sally Shaver reviewed the document and these are the issues that came to the top. We have not taken a position on the details as of yet, as these are more of a consensus. We want to support the bright-line concept in general.

C – Annette Sharp: EPA used the 2011 National Emissions Inventory and there are huge estimate liberties with ammonia to the point that agriculture is responsible for 3 million tons per year. Until there is a better way of assessing ammonia emissions from agriculture, they might want to skip it for now.

Q – Bob Avant: When does the charter expire?

R – Greg Johnson: The charter was just renewed, but the current membership terms continue until July 15.

R – Chief Weller: The challenge is that this is the last meeting, so anything else will need to be done remotely.

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C- Faulkner: I would have liked something more concrete and have recommendations. This is a much more work in progress.

C – Kevin Abernathy: Brock and the AQ Standards Subcommittee has done a great job reaching out to the San Joaquin Valley and others. Last Thursday, the San Joaquin Valley Air Pollution Control District Governing Board adopted again their 1997 PM2.5 Plan. There are consequences if EPA doesn't approve it. It's impossible to achieve without bans on new or expanding businesses and restrictions on existing businesses and will trigger a FIP. From a resident perspective in the San Joaquin Valley, this implementation rule is critical. If you're in a situation where you're implementing several attainment plans and you can't get there, what do you do?

Q – Chief Weller: How do you want to proceed?

R – Faulkner: Let Sally, Annette, Rick McVaigh, or me know if you have comments. We'll work within the committee to develop recommendations and will try to complete them within the comment period.

Final Issues for the Day:

Ron Carleton wanted to express appreciation for being part of the AAQTF meeting. He enjoyed the good, robust discussions today, and will take some items to consider back with him to Washington. He appreciated the frankness of some of the comments. A couple of times the San Joaquin Valley was discussed. He plans to be there in May. Kerry Drake is a part of that visit.

Chief Weller is tabling the EM2 subcommittee presentation for tomorrow. He also will not be attending tomorrow's meeting.

The meeting was adjourned at 5:53 PM ET

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Thursday, April 23, 2015

The meeting was called to order at 8:09 am EDT by DFO Greg Johnson.

Opening Comments:

Greg Johnson informed everyone that the re-charter was signed by the Secretary on April 15, 2015 at 6:00 PM and is authorized through April 2017. The previous charter expired on April 15, 2015, but current AAQTF members' terms continue through July 15, 2015 which provides a couple months for input and finalizing recommendations. There will be having a call for nominations for new AAQTF members and he expressed hope everyone will reapply. He also asked for the assistance of AAQTF members with outreach to achieve greater diversity on the next AAQTF.

Q – Kevin Rogers: As Brock was giving his report, he didn't know whether the AAQTF needs to vote to give the AQ Standards Subcommittee support for preparing the comments and recommendations. There is a lot of discussion and a lot of give and take in the process. Would it be helpful for this task force to support Brock and ask Annette and Brock and other to keep working?

C – Kevin Abernathy: Agreed with Rogers. We have a window of opportunity to continue working after this meeting. He stated that he would be happy to make a motion for the subcommittee to move forward.

R – Greg Johnson: Don't need a formal motion since the subcommittee can continue moving forward. Brock released a draft for comments with regards to the PM2.5 rule. The subcommittee will formalize what they want for comment and distribute to everyone for discussion.

C – Kevin Rogers: Stated that he believed a procedure was needed now, especially with what California is going through.

R – Greg Johnson: Will set it up for electronic discussion.

C - Bob Avant: Might mention health-based comment from yesterday. It might be good to place a clear understanding of the health-base standards and the economic implications with implementing the rule.

R – Greg Johnson: Any specific comments should be emailed to Brock and he can fold them into the recommendations.

C – Bill Norman: Encouraged task force members that any thoughts or comments they may have along these lines in the implementation, submit them to the subcommittee ASAP. Wanted to make sure to capture all the thoughts and comments with this group. Getting legislation passed and regulation approved is one thing, implementation is another.

C - Annette Sharp: If you have contacts at your local air quality agency, she asked that they contact Brock about their concerns with the PM2.5 Implementation Rule.

USDA ARS Update:

Phillip Silva with the USDA ARS in Bowling Green, Kentucky presented an update on climate change and the soils and emissions program with the USDA Agricultural Research Service ([see slide presentation](#)). He mentioned that Charlie Walthall was moving on to Ag System Competitiveness and Sustainability section of ARS. Ammonia and VOC to PM reactions are still not well understood, especially in the more rural areas. Need measuring instrumentation that is less expensive and easier to deploy. There will be a special symposium on agriculture and aerosols on October 12 -16, 2015 in Minneapolis.

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C – Greg Johnson: Suggestion on having the first task force meet in Minneapolis over the week of the symposium instead of Washington, D.C. Task Force members agreed.

C – Bob Avant – Clarification on one of the first slides with the GRACenet locations. The yellow area of pasture and hay in NE Texas is predominately dryland low crop production. It's not pasture and hay.

R – Phil Silva: Not sure. Will have to take the back.

Q – Bob Avant: Because you have background in urban particulate, this task force over a number of years has a very robust discussion on adequacy and accuracy of particulate samples. EPA reference samples were designed for urban sampling and not rural sampling. Do you have an opinion on the PM sampler and biases and whether samplers needs to be research for agriculture?

R – Phil Silva: I don't know. Other people are working on that and some people feel that other sampling methods are needed. I've heard both opinions.

Q – Bill Norman: Always appreciate ARS at this meeting and number of issues that impact or supported by ARS research. It is unfortunate that the ARS Air Quality and Climate Customer Input session in December occurred on the same date as the last task force meeting in Fort Collins. It is disappointing that being a stakeholder in a number of projects that the AAQTF didn't learn about the meeting until the second day of the AAQTF meeting and couldn't participate. There was a significant reorganization of ARS. Maybe in some areas not too significant, but three of the four areas that merged are all cotton production areas centered in Fort Collins. The area administrator is a long-time researcher of southern cotton crops. In the last six years, the cotton and ginning industry in general partnered with the SJVAPCD, EPA Region 9, and other bodies to research PM2.5 from cotton operations. Generated close to 200 peer reviewed papers and every one of the samples taken and much of the labor and analysis was done at the research center in Texas. What was not mentioned in Silva's presentation was that the laboratory in Lubbock, according to the current budget, is to be zeroed out. The monies support salaries of one of our team researchers, the only research project left in the country. Everything that has been done there with oversampling issues began 10 or 12 years ago. Much time and effort for an EPA partnership to resolve sometimes a 60% oversampling. Critical, but the data is at Lubbock and that office will be cut. The task force needs to understand what is at risk. It took five years to buy the equipment, to build the lab and mobile technology, to go to 13 different sites to do all the sampling. 1000's of samples that backed up 200 different papers and dozen researchers, critical with rulemaking in the San Joaquin Valley. Greatly appreciate ARS when you're a small low-cost commodity when compared with corn and soybeans, to get special funding to funnel the money to your area. Otherwise the big crops take the monies.

R- Phil Silva: I will pass those comments on.

Q - Lingjuan Wang Li: Technical questions related to monitoring and methods for sample for gaseous and particulate matter.

R – Phil Silva: Comments over the Ambient Ion Monitor. Has done a lot of characterization under the denuder classification and gas collection portion to make sure the gas phase does not show up in the particulate phase. Impactor seems to work better than a cyclone on the particle side, especially for small particles.

Cotton Gin Emission Factors Research:

Thomas Moore with Oklahoma State University presented an update with the National Cotton Ginning Particulate Matter Emissions Study ([see slide presentation](#)). The project objectives are to update the ginning PM emission factors in AP-42 and to develop PM dispersion modeling data set.

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Q – Kevin Abernathy: Based on this research, it is a practice in California that PM2.5 is a certain percentage of total particulate emissions. How close is this to reality?

R – Thomas Moore: Around 3 percent for PM2.5 and about 40% for PM10. A significant difference.

C – Bill Norman: This is work that only could be done through a collaborative arrangement with EPA, SJVAPCD, National Cotton Ginners, ARB scientists, etc. The mobile lab and other requirements were supported through industry grant funding. It took place at ARS in Lubbock, Texas with help from Oklahoma State University. This has been a long time coming... it takes planning. We had the resources, labor and equipment. Hats off to all those who participated. Thank you.

Q – Kevin Abernathy: Oversampling is something this task force has been concerned with. Is more research needed or do we move forward?

C – Bill Norman: We've had this overarching concern of the oversampling in rural areas and we have data that has become recognized as having value. This is just one small slice of a very large agricultural industry that comes under regulatory scrutiny. Additional work to confirm what we think should be expected is always helpful in making the next step in improving air quality.

C – Kevin Abernathy: Get pushed into the loading chute and emissions could be severely overestimated. When we can go back to the California Air Resources Board with data to show that their emissions inventories are overestimating emissions from a sector, that's when we can start to make headway.

C – Robert Burns: It's always a tradeoff with costs and what you can do. Your inventory is the heart of the attainment plan for those requirements, but how do you utilize those available dollars creates limits.

C – Lingjuan Wang Li: For animal feeding operations, using a percentage to estimate PM2.5 may not be representative. If we want to understand atmospheric chemistry impacts, there is a need to understand fate and transport. EPA monitoring sites are usually located in urban areas. Size distribution may not be as critical as is chemistry.

C – D'Ann Williams: Agrees with Kevin [Abernathy]. More data and more information will develop better emission factors and policy.

C – Kevin Abernathy: ARS and other are given ideas. A huge opportunity to provide more dollars to provide more information for policy.

C – Brenton Sharratt: Just wanted to address the comments that Bill Norman raised regarding the research program in Lubbock. This task force could impact a programmer at Lubbock as this is a stakeholder issue, but could take a Congressional act to reinstate that program. This task force could send a letter to the ARS administrator to assure that research programs in Lubbock remain viable.

Q – Annette Sharp: Asked if the AAQTF should adopt a resolution to get money to do the air quality portion of emission factor development and research? There is a need to continue with the work that has already been done.

R – Greg Johnson: Over the break if someone wants to take a lead for a resolution that the task force could vote on.

R -- Bill Norman – I would happy to take the lead.

Public Input Forum:

There was only one public comment provided:

Bob Avant made a public announcement that after 14 years on the task force it was time for him to step aside. Kelly Green served one or two terms and has moved on. Bob mentioned that he was asked to

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serve on the EPA Clean Air Act Advisory Committee and he was the only agricultural advisor on the group. Kelly Green took over after Bob and termed out. Bob expects Mr. Green will be submitting an application for the task force. He stated that he didn't want to lose another Texas spot to California. He stated that he believed Mr. Green would be an excellent candidate and addition to the AAQTF. The top issues he's seen include:

- NAEMS study
- CAFO Rules
- CERCLA/EPCRA recording
- Definition of Agriculture
- Sampler issues
- VOC issues related to pesticides
- Ozone NAAQS
- CO2 climate issues
- Biogenics

Bob concluded his remarks by saying that it was a pleasure working with everyone.

Break at 9:54 AM ET.

Convened at 10:15 AM ET

Air Quality Success Stories:

Adam Chambers, Air Quality Scientist with the NRCS Air Quality and Atmospheric Change Team, provided a success stories overview. Ted Strauss, NRCS California Air Quality Director, and Kerry Drake, EPA Region 9 Air Associate Director, talked about California's SIP creditability of voluntary incentive emission reductions. Provided a partner perspective and overview of what went into the process to achieve success. A video was presented ([see video](#)).

C – Bob Avant: Need to add others to the partnership group for this success story. Identified a couple of things earlier that could be successes. They may not be 100% complete, but they have had an impact on air quality regulation in the US.

R – Greg Johnson: We had some of that discussion. What defines as success story and when is it a success? Maybe place a success story arena on the AAQTF website to give them some permanence.

Q – Brenton Sharratt: Should we provide examples now or bring them to the subcommittee?

R – Greg Johnson: Bring them to the subcommittee.

Q – Kevin Abernathy: Looked at success stories from the producer level. Maybe they could be bumped up to the Department or agency level?

C - Michael Abazinge: Break website into success stories and accomplishments.

R – Greg Johnson: Good point. Look at the timeframe of accomplishments too.

ARS Research Recommendations:

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Bill Norman presented recommendations on the letter prepared by Norman and Annette Sharp. Minor changes were made to the wording prior to a motion. A motion was made and seconded, the motion passed unanimously. The letter will be delivered to the Chief and Secretary, and copied to ARS Director.

Q – Michael Abazinge: Should the Chief have some flexibility to change the wording, if need be?

R – Greg Johnson: That would have to be passed as a motion.

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EM2 Subcommittee

April Leytem provided the subcommittee update. Eileen Wheeler presented the ammonia white paper at W2W. Greg Zwicke will forward subcommittee success stories.

General Business:

Larry Jacobson mentioned that NIFA will be opening a position for an Agricultural Engineer (mid-career level) working on air quality.

Greg Johnson requested everyone to reapply for the next AAQTF and to provide any suggestions or ideas for the next AAQTF to work on.

Chris Peterson shared his thoughts of the task force. He stated that he is ok with the general direction of the AAQTF. Everything needs to be fair and based on facts. He tries to be a good steward. The Iowa direct hog market is three percent. Fifty-six receipts on the spot market for hogs. Ninety-one percent of independent hog producers are gone. Twenty years ago there were many small growers. The environment is suffering but animal numbers are the same. In his personal opinion, he doesn't have much interest in giving slack to industrial growers.

Greg Johnson thanked the AAQTF members for their service.

The meeting was officially adjourned at 11:22 am EDT by DFO Greg Johnson.