

The USDA Agricultural Air Quality Task Force (AAQTF)

AAQTF Meeting Notes – College Station, TX – Wednesday, August 20, 2014

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

Welcomes and Introductions

Dr. Greg Johnson, AAQTF Designated Federal Official (DFO), called the meeting to order at 8:18 am CT, welcomed the group, recognized Bob Avant for the great tour, expressed appreciation for Brock Faulkner's attendance, and went through initial logistics.

NRCS Chief Jason Weller welcomed the AAQTF and apologized for not making the tour. The AAQTF members then proceeded with introductions. After the introductions, Chief Weller shared success stories highlighting NRCS assistance in voluntary efforts with landowners to demonstrate positive results, including efforts on the arctic grayling and the Endangered Species Act.

Dr. Mark Hussey, Texas A&M University Interim President, next provided a welcome from Texas A&M and introduced Todd Staples, Texas Commissioner of Agriculture. Commissioner Staples then provided a welcome from the State of Texas and an overview of Texas agriculture.

Presentation – Salvador Salinas (Texas NRCS State Conservationist) – Welcome to Texas, and Air Quality and Texas NRCS

See presentation slides for details. Texas NRCS staff in attendance were introduced. Identified conservation tillage as perhaps the largest means for addressing agricultural air pollution. Opponents of livestock operations are focusing on animal waste practices and odors. There are concerns by the urban populations over fugitive dust. Most agricultural counties in Texas are in attainment – nonattainment areas are primarily urban areas. Under the NRCS National Air Quality Initiative, Texas NRCS has expanded the eligibility to adjacent counties to offer the conservation practices to landowners in and around urban areas. Texas NRCS has obligated \$6 million since 2011 in 33 counties for practices such as windbreaks, conservation tillage, dust suppression at CAFOs, and prescribed grazing.

Q – Weller – How do we communicate more effectively with the community on agricultural issues? What is the experience in Texas?

R – Salinas – That is a tough question. Texas is always trying to find ways to inform the non-traditional agricultural producer about agriculture. Texas AgriLife is also helping with that information campaign.

Q – Bill Herz – How many acres are in conservation tillage in Texas?

R – Salinas – I don't have figures with me. As we move forward, every town I travel to I see more and more farm land under some form of conservation tillage. Dry conditions and winds are causing dust, but I see more agricultural and farm land in some form of conservation tillage.

Texas NRCS is also expanding on the soil health effort – training employees and working with other organizations on soil health opportunities.

C – Michael Abazinge – 95% of the population lives in urban areas.

R – Salinas – Absentee ownership poses a challenge. We try to partner with other organizations, such as Texas AgriLife by holding public workshops. We are able to do more with reaching out to landowners by having these types of workshops after work hours, etc.

Q – Larry Jacobson – Can you expand on the public/private partnership?

R – Salinas – A few years ago, NRCS entered into a National Water Quality Initiative. In Texas, different water districts and agencies helped identify problem areas. In the northern part of the state, there was a regional water district that had specific terms for providing public waters. Phosphorus was identified as a concern, so we built a strategy and had other entities offering opportunities to participate. We are seeing a model for us that might expand to other parts of the state. NRCS can only bring so much with regards to financial assistance. It takes effort to help identify specific problems.

C – Kevin Abernathy – Each one of us represents specific sections of agriculture. In the dairy world, we took the initiative with bringing our social license to the consumer. We never even thought of USDA-NRCS with developing a protocol to bring our social license to our market. In 2014, we started a research program to see how science is being presented to the public. I might challenge you; this is a specific skill set that is not currently in the USDA. It may require partnership and potential networking with developing a social license.

R – Weller – That is something we are thinking really hard about. We need to approach this responsibly. There are organizations that have asked USDA to be more involved in the marketplace. We already have thresholds and tools, but we need to put these together in a way that NRCS can pilot test conservation thresholds in different states. Instead of having a black-box measuring tool, we should instead explain thresholds.

C – Abernathy – For everyone processing a dairy product, they have a requirement to sign-off on where the product is produced. We have always relied on NRCS for technical assistance and with EQIP and CIGs. We can't assume that science can prevail, but we need to rely on the experts to share information and the message to the public. We have to continue building consumer trust.

R – Weller – That is something we take seriously. What is responsible food production? NRCS can talk about resource management.

C – Abernathy - I would encourage the invitation of the Center for Food Integrity to the next meeting to talk about this issue.

Q – Bill Angstadt – In relation to the development of thresholds for programs, which programs do you mean? Would this replace the CSP program ranking?

R – Weller – Possibly. We have tools that provide points for practices, so I'm interested in a more practice-based approach.

C – Angstadt – Defining baseline for farmers to use without making it regulatory is critical.

R – Weller – Agreed. We have the Natural Resources Inventory and other tools to develop a baseline, and we can estimate at a county scale that producers are moving toward these thresholds.

C – Angstadt – Clarity on baselines from NRCS would be of great help. For example, would there be one set baseline or multiple baselines, such as nonattainment as a PM2.5 baseline?

Review of Previous Recommendations and Approval of Minutes

Dr. Johnson led a review of the recommendations from the Beltsville and Boise meetings and approval of the minutes from the Boise meeting in May 2014.

A break was initiated at 9:27 am, and the meeting resumed at 10:00 am.

Presentation – Tom Powers (U.S. EPA) – EPA Air Quality Update

See presentation slides for details. EPA staff in attendance were introduced. Mentioned Administration and EPA priorities of Climate Change rules and potential changes to the ozone standard. Other topics covered included:

- Grain elevator NSPS – Amendments proposed on July 9, 2014, with a 90-day public comment period to close on October 7, 2014. Not many new elevators are constructed – typically 2 per year. These amendments address issues with new and temporary elevators.
- NAEMS – No new information since the Boise meeting. EPA is continuing to determine how to address the Science Advisory Board's recommendations.
- PM NAAQS – The DC Circuit Court of Appeals issued its decision on May 9, 2014, regarding the lawsuit challenging the final PM NAAQS. State and tribal recommendations were due to EPA by December 13, 2013. EPA received recommendations from 50 states, 2 territories, the District of Columbia, and 6 tribes. Final designations are expected in December 2014.
- Ozone NAAQS – EPA is under a court order and intends to issue a proposed rule by December 1, 2014, with a final rulemaking by October 1, 2015.
- NOx/SOx NAAQS – The DC Circuit Court of Appeals upheld EPA's decision to not establish a new secondary standard on May 27, 2014. EPA is preparing a draft planning document this fall.
- Ammonia – EPA and USDA have formed an interagency ammonia workgroup to discuss a path forward on ammonia. EPA is planning to propose an approach for states to make a determination of whether ammonia contributes significantly to PM2.5 nonattainment in December 2014.

- Nitrogen strategy – EPA is currently working on a cross-cutting multimedia strategy, in cooperation with USDA and USGS.
- Phosphoric acid and phosphate fertilizer residual risk and technology rule – EPA expects to publish a proposed rule by October 21, 2014, with emission limits for mercury and hydrogen fluoride emissions for the manufacturing and production source categories.
- RICE NESHAP reconsideration – EPA determined on August 1, 2014, that they will not propose any changes to the regulation.
- Climate change – This is EPA’s biggest area of focus right now. They are finalizing the Clean Power Plan for existing power plants and the carbon pollution standard for new, modified, and existing sources. EPA is also issuing a methane strategy, addressing biogenic CO₂, and exploring operations for renewable fuels.

Q – Herz – This past winter was severe with lots of energy and electricity issues. How does the power plant rule play into this, with additional energy capacity needed, but about 88% of the coal plants expected to retire?

R – Powers – A severe winter is an aspect of climate change. EPA has had meetings with different state and regional energy regulators to make sure we don’t inhibit power supply. EPA is not making decisions on what should be closed, and EPA expects the states will come up with proposals as they develop their plans. EPA believes they have given state regulators flexibility on how to address this issue. On the cost, EPA projections indicate a relatively small impact long-term, but there may be issues with cold spells and a few other instances.

Q – Brock Faulkner – Regarding the new power plant rule, for NSPS, the technology must be commercially-available. Is there an example of such a technology for this rule?

R – Powers – There are two or three products meeting the commercially-available criteria, but there is still debate over this issue.

C – Faulkner – California already has some of this in their standard. Texas has an enormous wind potential, but you need power production to meet demand. We also have natural gas. Ramping up power works with natural gas power plants, but not coal plants. Has any consideration been made as to how different power plants operate and how to achieve baseload?

R – Powers – Yes, but there are a number of issues and it is complex. EPA is listening to individual state problems and targets, and they are trying to give everyone flexibility. Arizona mentioned that shutting down certain power plants would impact the power distribution system.

Q – Avant – On the ozone NAAQS, if you drive the standard too low, you run into background issues, such as the standard being lower than background in some cases. Is it possible that the secondary standard may be lower than the primary standard?

R – Powers – At around 60 ppb, you start to get pretty close to the background in many areas, especially with impacts from international transport. The standard is set for public health, but it does not make sense to establish a standard that cannot be met. We are getting this comment and are highly aware of this. Also, exceptional events come into play. There are more studies and effects analyses on health effects, and less on the secondary standard. CASAC recommended a 3-month standard. What is the practical effect of that? Studies seem to suggest the secondary effects are more chronic than short-term.

Q – Hongwei Xin – Can you expand on ammonia as a PM2.5 precursor and how the EPA/USDA ammonia workgroup fits into this effort?

R – Powers – We are not just looking at nonattainment areas. The regulatory process for this is complex.

R – Johnson – Regarding the EPA/USDA workgroup, we are just getting started. No decisions have been made yet on when to regulate ammonia and when not to.

R – Kerry Drake – There are five factors that go into the decision, and EPA hasn't made any final determinations on how to go about this. EPA is also putting forward a PM2.5 Implementation Rule that will be requesting comment on how to address ammonia in PM2.5 regulation.

C – Richard Teague – You need to have other countries (like China, India, etc.) make commitments to solve climate change if any real progress is to be made.

R – Powers – We are mindful of that, but we also need the U.S. to take leadership, too.

Q – Rick McVaigh – Have ammonia recommendations from the previous AAQTF meetings been put forth to the interagency ammonia workgroup?

R – Johnson – The group is just getting to that point now.

C – Herz – On the SO₂ NAAQS, EPA did a good job on clarifying how to go about things, but we also want EPA to recognize that actual monitored data are preferred over modeling results for nonattainment determinations. The document should also not jump back and forth between referencing regulations and guidance.

R – Powers – EPA definitely prefers monitored data over modeling, and the technical guidance documents all reflect that.

Q – D'Ann Williams – What is the status of the Farm, Ranch and Rural Advisory Committee?

R – Powers – I don't know. I will be talking to the Administrator soon and will report back to Greg Johnson on the status.

Presentation – Pete Lahm (U.S. Forest Service) – Forest Service Air Quality Update

See presentation slides for details. Topics covered included:

- Wildland Fire Air Quality Response Program – Have identified a cadre of Air Resource Advisors from other Federal agencies to assist in disseminating smoke impact information to the public. These teams are looking at methods for monitoring, modeling, and messaging to relay information about smoke impacts to public health and safety, transportation safety (roads and aviation), and fire personnel smoke exposure.
- Ozone NAAQS – USFS has looked at the implications of various proposed/potential levels. There are big issues even lowering the standard to 70 ppb, with a doubling of acres in nonattainment.
- Exceptional events associated with wildfire emissions

Q – Brenton Sharratt – Modeling is likely the most valuable tool for predicting smoke impacts. What is the purpose and utility of the monitors? Is it for exposure of smoke to firefighters, like for PM10? What criteria do you use for deploying those monitors?

R – Lahm – We use the modeling to plan – it’s a useful indicator. We use the monitors in those areas that are expected to receive a significant impact to judge and understand what the impacts are to the community. We can also use monitoring to match real impacts to the modeled impacts and how to correlate messaging to the public.

C – Powers – The new ozone standard will have the benefit of Tier 3 mobile source emission regulations, which will probably have the single biggest effect on improving air quality in the near future. There are major helpful regulations coming into place. The most recent Clean Air Act Amendments are nearly 25 years old now, and the Act is not entirely suited to address some of the new and relevant issues. EPA sometimes makes logical decisions, but the courts decide that those decisions are not Congress’ intent. It is difficult to make the necessary changes in today’s Congressional environment.

C – Sally Shaver – The ozone secondary standard has a conflict between fire’s impact on concentrations and its beneficial impacts on ecosystems. EPA seems to have a problem with understanding fire’s benefit to the environment.

Q – Abernathy – When will the USFS monitoring data be available? What is the lag time between collecting data in a fire and being able to use that for an exceptional event determination?

R – Lahm – Unfortunately, exceptional event data is expensive to collect and exceptional event demonstrations need to occur very near the time of the event. There is about a 30-day window to put together the exceptional event info. When it appears there may be an exceptional event, state agencies need to start putting together the data and can’t wait to have monitoring data all quality checked. California is blessed with CARPA and many districts have mobile monitoring.

Presentation – Tom Boggus (Texas A&M Forest Service) – Texas Wildfire Risk Assessment and Prescribed Burning

See presentation slides for details. Discussed Texas efforts to promote prescribed fire to lessen the impacts of wildfires. Their Service has developed tools and education to help with prescribed fire.

People want technical assistance and maps, not a plan. See TexasForestInfo.com and “A Land in Balance” – a YouTube video about the benefits of prescribed fire in Texas.

Q – Cynthia Cory – What media do you use to contact neighboring landowners prior to prescribed burns?

R – Boggus – Any means possible. Legally, we don’t have to contact them, but we do reach out however we can, from e-mail to knocking on the door.

C – Terry Spence – Very thankful for the approach to communication.

Meeting was adjourned for lunch at 11:59 am and resumed at 1:15 pm.

Chief Weller re-opened the meeting with a logistics discussion about the remainder of the AAQTF charter, which ends on April 15, 2015. He would like to hold two more meetings this charter – one in December and one in April. He would encourage the AAQTF to think about what the key recommendations and deliverables from the AAQTF will be and how to build momentum for the next charter. Chief Weller then turned chairmanship of the meeting over to Dr. Wayne Honeycutt, NRCS Deputy Chief for Science and Technology.

Presentation – Dr. Richard Teague (Texas A&M AgriLife) – Planned Grazing to Improve Ecosystem Function and Ranch Livelihoods

See presentation slides for details. Discussed efforts to improve rangeland ecosystems and the development of ecosystems services.

Q – Avant – It appears that the fencing strategy is the key to properly planning grazing efforts. Is that correct?

R – Teague – Absolutely. You need to have a good mixed diet for your animals every day, so spreading grazing to accomplish that is essential.

Q – Avant – Does NRCS have any management plans for grazing?

R – Honeycutt – Yes, NRCS develops management plans for grazing under the Prescribed Grazing practice standard.

R – Teague – Many people are following conservation plans developed by NRCS.

C – Avant – It seems that plans based on soil surveys would be good information to have.

R – Teague – Yes, NRCS soil maps are a very good tool.

R – Honeycutt – The NRCS Soil Health Initiative is starting to look at rangeland and pastureland in addition to cropping systems to identify key management practices for reducing erosion and increasing carbon and soil health.

Climate Variability Impacts Subcommittee

Presentation – Dr. Cristine Morgan (Texas A&M AgriLife) – Soil Security and Clean Air

See presentation slides for details. Discussed soil security (maintenance and improvement of the soil resource to produce food, fiber, and fresh water) and the five dimensions of soil security – capability, condition, capital, connectivity, and codification. Also discussed that soil-water interactions (capture, store, and release water to the atmosphere) drive mass and energy fluxes. Introduced the HSBC Natural Capital article and mentioned a Global Soil Security Symposium at Texas A&M on May 20-22, 2015.

C – Avant – He had never heard the term “natural capital” until Cristine briefed him on this presentation. He needs to see the HSBC article.

Q – Herz – In thinking about the Waters of the US issue, could the soil security model help with the connectivity of waters? How do we value soil? Would the model show what is a significant nexus of activity? Some of these models suggest a more preservation approach than production.

R – Morgan – Soil is very valuable, and we need to figure out a way to monetize the intrinsic value.

Bob Avant then presented the high points of the Climate Variability Impacts Subcommittee white paper on “Development of a Uniform Sustainability Assessment Method.” Key points included:

- Background – At the Beltsville meeting, sustainability and certification was included as a topic of interest. Focus is needed on developing a uniform sustainability index.
- Sustainability issues – The CVI Subcommittee will focus on agricultural sustainability. There are concerns over “third-party” certification with the current direction of retailers. Criteria must be based on good science, and USDA needs to weigh in on this. What is the incentive for the farmer to want to go through additional oversight for the commodity? Want engagement in science, as well as assurances and best management plans.
- Third party certification is a major issue to producers and can be of great concern. Movement ahead on sustainability needs to be scientific, and voluntary.
- Food Resilience Initiative recently was rolled out by the White House, and there are efforts going on (Field to Market, Microsoft, Coca-Cola, Walmart, General Mills, and many others).
- He discussed the 7 recommendations in the white paper. Mentioned that anything in the sustainability arena must be palatable to agriculturalists. He also mentioned best management practices (of NRCS, for instance), and the need for engagement of USDA, NRCS in this process.
- Presentation regarding the First Adaptation Plan to the AAQTF at a future meeting is requested.

C – Cory – The word “sustainability” is not well-defined. She provided an example of how the San Joaquin Valley was able to work with EPA, NRCS, producers, and others to replace engines and gain SIP credit, and this has been incorporated into the white paper. How can GHG emissions reduction and carbon sequestration efforts also receive some type of “credit” without having to meet the “gold standard” that is needed by the carbon registries? How can we use funds for GHG reductions

with the water conservation measures? The NRCS GHG qualitative practice effects graphic is helpful, but we need to put numbers behind the smiley faces now.

C – Annette Sharp – Suggest having a panel of corporate partner representatives (Walmart, Nestle, etc.) at the next meeting to discuss their sustainability criteria. What are they based on?

C – Lara Moody – Field-to-Market is a good place to start to engage, and may negate the need for engagement right now with individual players like Walmart. NRCS could be a stronger voice by encouraging corporate partners to include agriculture as a more important piece of the pie of creating sustainability criteria. Field-to-Market currently doesn't include a livestock component.

R – Honeycutt – NRCS has been working closely with Field-to-Market in helping them integrate NRCS tools and piloting efforts. What role would the AAQTF like to see NRCS play?

C – Abernathy – Commended the subcommittee for their work on a subject that is near and dear to him. PepsiCo. wants to manage water from dairies. He also recommended there be practice standards of what is considered sustainable agriculture.

C – Cory – Referenced pages 5-6 of the white paper and provided an overview of companies that have sustainability programs.

C – Avant – Believes that, of all the groups out there, Field-to-Market is likely to have the most traction. He would like to see implementation of NRCS practices as an alternative to having an auditor participate in credit determination.

Q – Angstadt – Is there a GHG practice standard specific to crop production and cropland GHG reductions?

R – Honeycutt – No, but there are about 30 practice standards that can achieve carbon sequestration and/or emission reductions.

Q – Angstadt – Is there a need to have a single practice with this focus, similar to the Nutrient Management practice standard?

C – Cory – Trying to prevent mandatory requirements on farms. Wants to replicate other successes and utilize a practice standard or standards to make some headway. Wants a quantification technique that is not onerous, but demonstrates environmental benefits. Need to provide this from the field up.

R – Honeycutt – NRCS definitely has tools and methods, like COMET. We can see a path forward, but maybe we should sit down and talk about how to pilot this effort.

C – Moody – Doesn't think it would be helpful to have an entire panel, as suggested by Annette, but if the AAQTF wants it, it would need to be set up quickly, and participants like Rod Snyder from Field-to-Market and Stewart Ramsey from the methods group need to be on the schedule.

C – Avant – Would like to have someone to at least provide an overview of the corporations involved in sustainability efforts – who is out there and what are they doing?

Avant – One other topic for discussion – Attended an Unmanned Aerial Vehicle conference last week and was very surprised to learn that it is illegal under FAA rules to fly a UAV over a crop and record crop data. The FAA memo was issued in June 2014 – it is ok to fly for camera development, but it is not ok to fly over a crop for crop data.

R – Honeycutt – Do you have a contact at FAA?

A break was initiated at 2:58 pm, and the meeting resumed at 3:33 pm.

Emissions Measurement and Mitigation Subcommittee

No external presentation. Eileen Fabian discussed the ammonia white paper being prepared by the EM2 Subcommittee, which is intended to provide awareness to regulatory personnel about the hurdles to regulating ammonia. There is a need to refine the paper prior to finalization, and the Subcommittee requests comments from AAQTF members by Friday, August 29.

C – Chris Petersen – Has concerns on the last paragraph – needs to work to address public health and welfare impacts with sustainable food production, or something to that effect. Don't say that it is not possible, say that you are going to work with others.

R – Honeycutt – Would like to have everyone send specific comments back to Eileen in a redline electronic version.

R – Shaver – Would like to clarify that the specific language Chris Petersen is referring to was intended to spur EPA to include consideration of food production. She would appreciate specific language from Chris to help with this.

Greg Zwicke will forward the latest version of the white paper to the AAQTF.

Air Quality Standards Subcommittee

Brock Faulkner thanked Rick for taking over the Subcommittee duties in his absence and then provided an overview of issues that the AQS Subcommittee is following, including:

- PM sampling issues – Brock talked about the next policy steps during the tour, so he didn't go into any more detail here
- Tailoring Rule – There will be a presentation on this rule and the recent court decision later in this meeting
- Ozone NAAQS – The Subcommittee is keenly interested in this. At the Tallahassee meeting, there was discussion over the proposed secondary standard.
- San Joaquin Valley SIP creditability rule – see below

Rick McVaigh then gave an update on the SJV SIP creditability. SJV Air Pollution Control District Rule 9610 is designed to provide an administrative method for seeking SIP credit for incentive-based emissions reductions. About 100,000 tons of emissions have been reduced through incentives, and NRCS has played a part in this. The rule was based on agreements between EPA, ARB, NRCS, and the SJVAPCD. There is now a lengthy public process. EPA has proposed approval and has received a comment from Earth Justice against approval and that Earth Justice plans to file a lawsuit if EPA decides on final approval action. Approval is still expected by September 2014, so Rick will have a further update at the next AAQTF meeting.

C – Drake – Just wanted to acknowledge that EPA appreciates the help received from NRCS to resolve some of the final issues.

Presentation – Booker Harrison (Texas Commission on Environmental Quality Senior Attorney for Air Quality) – Assessment of the Supreme Court Ruling on the GHG Tailoring Rule

See presentation slides for details. Discussed the specific findings of the Supreme Court ruling.

C – Herz – Was there not another argument for the Tailoring Rule besides the absurd results argument?

R – Harrison – The sheer numbers and costs to process the applications and the ability to process the applications were included.

C – Herz – What happens to permits that were already issued under the rules that were vacated?

R – Harrison – EPA is waiting to see what the DC Circuit Court tells them in light of the Supreme Court ruling.

R – McVaigh – The San Joaquin Valley issues 15 PSD permits based on GHG alone. Those requirements could now be removed. The SJV issued one Title V permit for GHGs, and that could be rescinded. For one permit that was required anyway because of other criteria pollutants, the SJV would wait until seeing what the DC Circuit Court does.

Presentation – Dr. Bryan Shaw (Texas Commission on Environmental Quality) – TCEQ and Ag Air Quality in Texas

Dr. Shaw opened by acknowledging the attendance of Drs. Calvin Parnell and John Sweeten, both of Texas A&M and former AAQTF members. Focused his presentation on the proposed standards for existing fossil-fuel fired power plants under Section 111(d) and the implications for Texas and for agriculture. Much of the conversation has focused on state GHG emissions budgets. EPA would have to determine the Best System of Emissions Reductions (BSER). EPA has put forth four building blocks instead of focusing on on-site controls, as they usually do for other rules under Section 111(d).

C – Cory – Would be interested in having agriculture be able to provide some of the reductions required for power plants through offsets.

R – Shaw – That would be a great flexibility, and there is great potential for agriculture to be a beneficiary of that flexibility. However, there is a lack of certainty and understanding from EPA on what would be required to allow that flexibility – what level of reporting will be required and how that credit would be made. The same issues are related to the provision for increasing energy efficiency – who gets credit for implementing those energy efficiency measures? There are also challenges with enforcement and whether there would be a regulatory burden for those agricultural sources that provide those offsets.

C – Sharp – Most plans for rules under Section 111(d) don't look like this one. Most are very prescriptive. It is disconcerting that EPA is changing up their way of preparing these plans.

R – Shaw – Agreed. Usually, you have a regulation under Section 111(b) before preparing a 111(d) regulation. Sources under Section 112(r) are usually precluded from being regulated under Section 111(d).

Q – Herz – What does the Texas roadmap for implementing this rule look like, assuming the rule sticks?

R – Shaw – It's blank right now. We are trying to figure out what the options are. Texas is seemingly being punished for previous investment in wind. Also, what does a Federal Implementation Plan look like for this? EPA hasn't had a good answer for that, other than there will be one. That also leads to another question as to whether EPA can mandate electricity production based on GHG emissions rather than economics or other considerations from an electricity reliability standpoint.

Meeting was adjourned for subcommittee deliberations at 4:59 pm.

AAQTF Meeting Notes – College Station, TX – Thursday, August 21, 2014

Dr. Honeycutt called the meeting to order at 8:15 am CT.

Presentation – Dr. John Sweeten (Texas A&M AgriLife) – Cattle Feeding and Environmental Air Quality

See presentation slides for details. Recognized the many project team members and outlined the primary project objectives and findings for each of the objectives:

- Abatement Measures and Receptor Impacts
- Process-Based Emission Models
- Dispersion Modeling, Emission Factors, and Regulation
- Technology Transfer to Stakeholders

Q – Avant – This project is a great example of how earmarks can actually work. Methane is likely to be more closely looked at by EPA. Could feedlots get credits for GHG reductions if they change rations?

R – Sweeten – They could. It is to the feedyard's advantage to make the most efficient use of their feed. That can reduce methane emissions. The industry is constantly changing. The national cattle herd is very low right now.

Q – Avant – What incentives may be available? This may be a topic for the AAQTF to consider in order to get NRCS to incentivize ration changes.

Q – Abernathy – In the slides, the sprinkler system was showing ~50% control vs. rain at ~70%. From a permitting standpoint, we know that moisture helps with reducing PM emissions. Are the vehicles and other PM sources contributing to the PM emissions and included in the control efficiency numbers?

R – Sweeten – The project did try to quantify those separately, including the feedmill and vehicle traffic. A lot of the PM data included everything, though. Certain times of the day are dominated by different sources. In the daytime, the feedmill, vehicle traffic, etc., dominate, and during the evening dust peak, the cattle activity dominates. If water were plentiful, you could apply more, but using a sprinkler system with limited water availability will depend on the time of day. If you had to choose, one hour in late afternoon would be ideal, but you would need larger pipes and larger pumps to cover the entire property in that short amount of time.

Q – Abernathy – Some in California have permit conditions to maintain at least 30% moisture content in the pen surface. Is your data showing a need for 25 % moisture content peer-reviewed and published? There is a lot of very valuable information from this project.

R – Sweeten – Yes, all studies have been peer-reviewed.

Q – Abernathy – Could the stocking density be used as a control method? You examined 75 feet per head, where dairies are about 650 feet per head. Depending on the size of our dairies, could you get a different emission rate with fewer feet per head?

R – Sweeten – Probably not if you were just spreading out the area because of the possible increases in other emissions. You would need to be careful.

Q – Abernathy – Well, maybe there is a difference in dairy vs. beef. Did you compare the sprinkler facility vs. a conventional facility?

R – Sweeten – Yes, that was done in Kansas by Kansas State University as part of this project. I think that work is published, but I would have to check.

C – Shaw – There is the potential for ration to affect methane emission rate. It's not well-understood whether there is an opportunity for receiving GHG credit. Maybe that could be included in a comment on the Section 111(d) rule.

Q – Herz – In looking at using a dry-rolled vs. steam-flaked diet, have you looked at the overall energy and GHG balance?

R – Sweeten – I'm not an animal scientist or nutritionist, but the steam-flaked corn gives a 10% increase in digestibility (and therefore performance), and that overcomes the additional energy input.

Q – Williams – Are there plans for an instrumentation/measurement methods paper from this project?

R – Sweeten – Some papers did look at certain measurement methodologies and how to conduct those measurements properly. However, we didn't write up an ASABE standard from this project.

Presentation – Dr. Derek Whitelock (USDA-ARS Las Cruces, NM) – National Cotton Gin Emissions Study

See presentation slides for details. Discussed the findings of the study, which covered 7 gins across the cotton belt.

C – McVaigh – This was a great project. The San Joaquin Valley spent about \$150k in this study, and it helped to switch the regulatory direction on cotton gins. The project eliminated cotton gins from being added to the PM_{2.5} plan, and the results were very consistent with other ambient monitors. There is great potential for improving our modeling protocols.

A break was initiated at 9:52 am, and the meeting resumed at 10:15 am.

Public Comment Period

Dr. Calvin Parnell (Texas A&M University) – He is pleased to be back, but is upset that Manuel (Cunha) isn't here! The AAQTF is bigger now than when he was on the initial charter. He is now the director of the Texas A&M Center for Agricultural Air Quality Engineering and Science (CAAQES). The mission of CAAQES is to make sure regulation is based on sound science and to correct inappropriate regulation. The concept of CAAQES came from the AAQTF.

C – Avant – Yesterday, he counted eight former graduate students, including five current AAQTF members, who studied under Calvin. He recognized Calvin for his contribution to the AAQTF.

Kelley Green (Texas Cotton Ginners Association) – Works on air permitting for cotton gins in Texas and the surrounding states. He also spends time on research and making sure the right emission factors are in place. He serves on EPA's Clean Air Act Advisory Committee. EPA's research is mainly urban-focused, and the cost-benefit analyses are also primarily based on urban PM. Urban PM and rural PM are very

different. We have great university partners, but USDA-ARS is an extremely valuable resource for rural research. Encourages continued support of USDA-ARS.

Charles Mancuso (farmer in Bryan, TX) – He is concerned more with problems associated with emissions from people than emissions from agriculture. He farms cotton, corn, and cattle, and his land has been in his family for over 100 years. Houses are now being “grown” all around it, and those folks are full of complaints. One neighbor complained that his cattle cause odors and attract flies. He piled his manure to compost it and bought a manure spreader to do it right and be good for the environment. He has several neighbors who burn their trash and debris several nights a week. We need to do something about that. He has called different agencies and nothing is ever done.

Presentation – Dr. Adam Chambers (USDA-NRCS) – NRCS Air Quality Update

See presentation slides for details. Discussed possible changes to the NRCS National Air Quality Initiative, provided an update on the National Air Quality Site Assessment Tool, and highlighted the new USDA GHG Quantification document and successes from the NRCS GHG CIGs.

C – Avant – In using the term, “antiquated tractor”, he hopes Dr. Chamber wasn’t referring to his (Avant’s) tractors. Should use a different word than “antiquated”. Otherwise, there may be problems with the antique folks.

Q – Moody – Appreciates USDA taking and incorporating comments on the GHG Quantification document. Lots of good changes were made, and it is a good start on making sure modern practices were incorporated and represented. What is the next step? Will there be future updates?

R – Chambers – Changes are still being made, especially on N₂O. Funding has been secured to keep the research moving forward. We need to continue improving the science, especially in regard to the national GHG inventory for N₂O. This is a one-time publication, but the plan is for it to be a living document online.

Q – Moody – Over time, as new information comes available and is being incorporated into the document, COMET, and other tools, we also want to bring in USDA scientists to help with compiling and creating the data. How can we keep USDA at the table in light of budgeting and travel issues?

R – Honeycutt – USDA can accept funds for travel if there is no conflict of interest. In general, it would require an individual discussion to make sure there is no conflict.

Presentation – Dr. Jean Steiner (USDA-ARS) – ARS Air Quality Update

See presentation slides for details. Discussed air quality research by ARS, including an overview of the Long-Term Agricultural Research (LTAR) sites.

Q – Sharp – She is trying to interface with stakeholders. There are issues with urban encroachment into rural areas. It seems like education needs to start with real estate agents, who need many

hours of continuing education anyway. Can that be a place to offer or promote mini-courses by cooperative extension on what a farm is today? We could highlight the important things to communicate about a farm, and what would likely happen if the farmland goes away.

R – Steiner – That hasn't been a target audience, but it is a good idea, and she will bring it back to the group.

Q – Angstadt – Where are the two cross-site denitrification sites?

R – Steiner – University Park PA and Tifton GA. Peter Goffman from New York also is involved in these efforts.

Q – Teague – Pointed out that there can be considerable differences between laboratory studies and those involving whole systems, lifecycles, etc. in the real (outdoor) world. ARS and other research needs to bridge these gaps, as well as to develop relevant partnerships.

R – Steiner – We need to understand local partnerships and work site-by-site to develop these partnerships.

R – Honeycutt – Quantifying risks is important for driving conservation and reducing loans and risk.

Subcommittee Discussion and Recommendations

Air Quality Standards Subcommittee

Brock Faulkner noted the Subcommittee had no further action for this meeting.

Climate Variability Impacts Subcommittee

Bob Avant presented a resolution regarding the Unmanned Aerial Vehicle issue:

“The USDA AAQTF at its meeting on August 21, 2014 requests that the Chief of the NRCS contact the FAA to secure clarification and approval for the use of UAV's for agricultural research and commercial agricultural applications.”

Q – Steiner – Would the Chief of NRCS be the appropriate USDA contact person?

R – Honeycutt – That would depend on the level of FAA to contact. NRCS would coordinate to make sure that the contact is made on the appropriate level.

Motion was passed to accept the resolution.

Bob Avant then discussed that a clean draft of the white paper on sustainability issues would be circulated to the AAQTF electronically for comment. Comments are to flow to Adam Chambers, who will forward those on to Bob Avant and Cynthia Cory.

C – Abernathy – We can vote on the document electronically after comments are incorporated. He suggests Greg Johnson sends out the updated version in Track Changes for an electronic vote.

R – Johnson – AAQTF members should send their comments to Adam Chambers by the end of August. Once the comments have been incorporated, an electronic vote via e-mail will occur by December.

Emissions Measurement and Mitigation Subcommittee

April Leytem noted the Subcommittee had no further action for this meeting, although they are requesting comments back on the ammonia white paper. Comments are to flow to Greg Zwicke, who will forward those on to Eileen Fabian.

C – Johnson – AAQTF members should send their comments to Greg Zwicke by the end of August. Once the comments have been incorporated, an electronic vote via e-mail will occur by December.

AAQTF Logistics

Suggestions for the next two AAQTF meetings are:

- Fort Collins, CO – 1st week of December 2014, preferably later in the week
- Tennessee (Gatlinburg or Knoxville) – week of April 6, 2015

Bob Avant mentioned the potential for visiting a bioenergy facility near Knoxville, TN.

The recommendations for meeting locations and times above were voted on and passed.

The AAQTF charter ends on April 15, 2015. For the remainder of the charter, Chief Weller would like for the AAQTF to focus on:

- Concrete deliverables and action items
- Success stories
- Items to work on with EPA

Proposed topics of interest for upcoming meetings included:

- Sustainability, absentee landowner issues, Center for Food Integrity, consumer and market forces (USDA role and position) – Abernathy will work with Johnson to start the Center for Food Integrity discussion.
- Presentation by Field-to-Market
- Presentation by Chief Weller or designee on resource stewardship efforts in USDA
- Presentation by the primary livestock groups on their efforts (similar to Field-to-Market) – how can they coordinate better with USDA on EQIP data and funding

- GHG quantification and verification, C-AGG, GHG CIG update (what is USDA doing with information learned?)
- Interface of agriculture and energy (ethanol production, bioenergy, etc.), tradeoffs, digesters
- Market forces – What are the Federal agencies doing? Who is defining “sustainable food”?
- Ozone standard proposal (due out Dec. 1) – needs to be more than just a regular EPA person; should be someone that can make decisions and have a good constructive dialogue (e.g., Janet McCabe)
- Update on the Agriculture and Ammonia Workgroup – request suggestions and input from AAQTF

C – Honeycutt – Additional topical suggestions should be put forth in a paragraph to Greg Johnson.

C – Honeycutt – The NRCS Air Quality and Atmospheric Change team will follow up on feed management practice standard issues related to steam-flaked vs. dry rolled corn and other practice standards to look at the opportunities for developing GHG credits.

R – Abernathy – Be careful. Need to also look at unintended consequences.

C – Johnson – AAQTF members should get their receipts in to Evelyn Johnson as quickly as possible for processing.

The meeting was adjourned by DFO Johnson at 11:57 am CT.