



Kansas State University – Alumni Center

Corner of 17th and Anderson Avenue

Manhattan, Kansas

September 21 - 22, 2011

Agenda Wednesday, September 21, 2011 (Day One)

***Minutes are unavailable due to lack of audio**

Time	Topic	Page	Speaker
8:00	Call to Order Opening Remarks	*	Elvis Graves, Designated Federal Official Wayne Honeycutt, Deputy Chief, NRCS & AAQTF Acting Chair Eric Banks, State Conservationist Gary M. Pierzynski, Interim Dean, College of Agriculture, Kansas State University
8:45	Review/Approval of Minutes from June Meeting	*	Wayne Honeycutt, Acting Chair
9:00	NRCS Technology Update	*	Wayne Honeycutt, NRCS Deputy Chief for Science and Technology
9:30	Break	*	
9:45	EPA Updates	*	Janet McCabe, Deputy Asst Administrator EPA, Office of Air and Radiation
11:15	PM Sampler Update	*	Brock Faulkner, Texas A&M University Robert Vanderpool, EPA, ORD

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12:00	Adjourn for Lunch (on your Own)	*	
1:00	Committee Updates AQ Standards Committee SPEAKER: John Richards Air Quality Technologies		Committee Co-Chairs Brock Faulkner/Rick McVaigh
	Emissions Quantification Committee SPEAKER: Bill Herz The Fertilizer Institute		Committee Co-Chairs Sally Shaver/Robert Burns
	GHG and Biofuels Committee SPEAKER: Don Scott Director of Sustainability, National Biodiesel Board		Chuck Rice/Bob Avant
	Emerging Issues Committee SPEAKER: Bill Norman National Cotton Council		D'Ann Williams/Cynthia Cory
4:00	Seminar		Dr. Honeycutt
5:00	Adjourn		

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Agenda Thursday, September 22, 2011 (Day Two)

Time	Topic	Page	Speaker
8:00	Opening Comments		Wayne Honeycutt, NRCS
8:15	Flint Hills Burning Discussion (Moderated Session)		Moderator: Susan O’Neill, NRCS Clenton Owensby , Kansas State University Mike Collinge , Private Landowner Doug Watson , Kansas Department of Health and Environment Carol Blocksome , Kansas State University
10:15	Break		
10:30	Agency Updates		Pete Lahm , US Forest Service Charlie Walthall , Agricultural Research Service Ray Knighton , National Institute of Food and Agriculture
12:00	Lunch (on your own)		
1:00	EQIP Air Quality Update		Jeffrey White , Team Leader /Stewardship Programs, Financial Assistance Programs Division, NRCS
1:30	Task Force Committee Discussions AAQTF Committee Recommendations <ul style="list-style-type: none"> • Emissions Quantification • AQ Standards • Emerging Issues • GHG and Biofuels 		Committee Co-Chairs <ul style="list-style-type: none"> • Sally Shaver/Robert Burns • Brock Faulkner/Rick McVaigh • Cynthia Cory/D’Ann Williams • Bob Avant/Chuck Rice
3:15	Next Meeting/Wrap-Up/Adjourn		Wayne Honeycutt, Acting Chair

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Wayne Honeycutt, Acting Chairman, was presiding.

ROLL CALL

Committee/Voting Members Present: **Committee/Voting Members Absent:**

Mr. Wayne Honeycutt, Acting Chair, NRCS Deputy Chief, Science and Technology

Mr. William Angstadt

Mr. Robert Avant, Jr.

Ms. Cynthia Cory

Dr. Brock Faulkner

Ms. Lisa Greene

Mr. Bill Herz

Mr. Paul Martin

Dr. Richard M. McVaigh

Dr. Bill Norman

Dr. Charles Rice

Mr. Kevin Rogers

Dr. James Seiber

Ms. Annette Sharp

Dr. D'Ann Williams

Chris Peterson

Doug Shelmidine

Terry Spence

Staff/Others Present: **Staff/Others Absent:**

Mr. Eric Banks, State Conservationist, Salina, Kansas

Mr. Damon Frizzell

Mr. Elvis Graves, AAQTF Designated Federal Official

Dr. Ray Knighton, USDA, NIFA

Dr. Charlie Walthall, USDA, ARS

Mr. Pete Lahm, USDA, FS

Ms. Janet McCabe, Deputy Assistant Administrator, EPA Office of Air and Radiation

Robin Dunkins, US EPA OAR/OAQPS

Dr. Susan O'Neill, USDA, NRCS

Dr. Greg Johnson, USDA, NRCS

Mr. Greg Zwicke, USDA, NRCS

Dr. Adam Chambers, USDA, NRCS

Mr. Johnnie Siliznoff, USDA, NRCS

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Mr. Ted Strauss, USDA, NRCS

David Kraft, USDA, NRCS

Mr. Jon Ungerer, USDA, NRCS

Mr. Gary M. Pierzynski, Interim Dean and Director, Kansas State University Research and Extension

Mr. Robert Vanderpool, US EPA, OAR/OAQPS

Mr. Jeffrey White < USDA, NRCS

PUBLIC PARTICIPANTS

Floyd Dowell, USDA, ARS

Don Scott, National Biodiesel Board

Steven Howe, Staffer, Office of US Congressman Tim Huelskamp [KS-01]

John Richards, Air Control Technologies, P.C.

Josh Tapp, US EPA Region 7

Becky Weber, US EPA Region 7

Rick Brunetti, Air Director, Kansas Department of Health and Environment

Tom Gross, Kansas Department of Health and Environment

Fred Fox, USDA, ARS\

Walt Fick, Kansas State University, Agronomy Department

Ronaldo Maghirang, Kansas State University, Biological and Agricultural Engineering\

Lawrence Hagen, USDA, ARS (retired)

Steve Swaffar, Kansas Farm Bureau

Rod Winkler

Terry Jo Litchfield, Kansas State University, Department of Agronomy

The meeting was officially opened by Elvis Graves and brief instructions were provided about the public nature of the meeting. He informed the group that Chief Dave White was unable to attend the meeting and that he had asked Dr. Wayne Honeycutt to chair the meeting in his absence. Elvis introduced Dr. Honeycutt who thanked the members for their attendance and continued service.

Dr Honeycutt asked the members if they had issues or concerns with the minutes that had been provided to them and if there were changes that needed to be made. The minutes were reviewed and accepted with changes as noted.

Comments on Notes from the previous meeting

- Dr. Honeycutt– requested overview from Avant so that the minutes can be accepted
- Dr Norman motioned, motion seconded, therefore notes accepted with recommended changes.

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NRCS TECHNOLOGY UPDATE

Dr. Honeycutt provided the NRCS Technology update. The following comments were received.

Bob Avant asked several questions : 1) Climate change vulnerability report – Bob Avant requested that report be provided as soon as it's ready for his Subcommittee review (He and Chuck Rice serve as co-chair).

Cynthia Cory commented on CIG biogeochemical model uniformity.

- DNDC model is specified in some of the CIGs and they might suggest changing. There might be other additions/changes.
- There is also the Century and DAYCENT biogeochemical models – many projects in CA are using DNDC and she recognizes that there is a need to merge/coordinate with the other models

Bob Avant stated that there continues to be a need for fire management to mitigate the events like Bastrop Fire [TX] – important tool for human safety.

PM SAMPLING ISSUE UPDATE

Dr. Honeycutt introduced Dr. Brock Faulkner and Dr. Robert Vanderpool (EPA) who provided an update on the PM Sampler issue. Some of Dr. Vanderpool's comments included:

- A positive working relationship has been developed
- TSP Samplers – the higher wind speeds give larger error/uncertainty in the sampling. Need higher machine in-flow and/or larger opening to overcome this. Need to go back and review this.
- Need to look at again the definition of “true” PM10.
 - 1) PM10 and how the lungs function
 - 2) Step function bias – need to understand this more
 - 3) Coulter Counter – requires assumptions of particle density and shape factors. It is incapable of measuring particles less than PM2. Thus missing the fine volumes which are always there, thus underestimating PM, and thus overestimating the potential bias in the EPA FRMs.
- Dr. Buser – measures a “true” PM10, then calculates a cut point and then assumes a shift in cut point

Question/Answer Period

- Dr. Brock Faulkner stated that he was seeing same concerns in low/high volume sampling, and that 2) small penetration of large particles does make a big difference, and 3) our study is looking to address the uncertainty in the large particles
- Bob Avant – he was one of McFarland's students (Coulter Counter). He is most concerned about a sampler being used improperly at the property of line. He sees that the proper use and deployment of FRMs is bigger issue and that guidelines/clarity are needed from EPA.
- Dr. Vanderpool stated that he was aware of only one study of trying to reconstruct particles off a filter and what is in the ambient air. Coulter counter measures 2-60 micrometer particles. Agrees on monitors, believes most monitors are cited in urban areas.
- Dr. A'Ann Williams asked questions about the preliminary data.
- Dr. Vanderpool stated that he had questions about how much of the liquid particles are being lost in the particle inlet so ask the TF to please take with a grain of salt.

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- Rick McVaigh – Remarks on how he sees the data from these samplers used. He agreed that fenceline sampling was typically not done, BUT these samplers have been used in research applications and the data used to calculate emission factors, the data are also used in SIP modeling and source apportionment.
- Dr. Vanderpool stated that he couldn't agree more.
- Dr. Bill Norman complimented Dr Faulkner and Dr. Vanderpool on their efforts. He stated that Multi-state gin sampling work is about to wrap-up and that they were using similar samplers and similar lab techniques. Where does this study stand given the work of you both?
- Dr. Vanderpool stated that low volume TSP is going to undersample, need to sample wind speed at the inlet too.
- Dr. Seiber asked what do we know about the composition of the particles and Dr. Lisa Greene requested an update on the EPA Course particle study and other updates on the course particle standard.
- Dr. Vanderpool replied about the study and indicated that it does not include characterization.

EPA UPDATE – JANET MCCABE

Dr. Honeycutt introduced Janet McCabe who made brief comments about current EPA activities and opened the meeting up for questions from the Task Force.

- Annette Sharp – comments about monitoring. 1) States are strapped financially. 2) Burning – Flint Hills, Sugar Cane burning.
 - Janet McCabe – yes, state budgets are strapped. What would be a good study for PM10 monitors in rural areas? Would like to work with the TF on this.
 - Regulation Review – 8 years (Toxics are reviewed), 5 yrs for NAAQS. Other rules are not under a review cycle. This administration wants to reduce regulatory burden and get rid of regulations that are outdated, and review/update ones that need it.
 - Guidance and burning – EPA recognizes that there appropriate uses of burning. Guidance can go a long way. Thinks the Flint Hills is a great example of people coming together.
- Bob Avant – 1) Bastrop Fire, 40,000 acres burned. 2) Because of the Utility Rule, they can expect rolling blackouts, and agriculture is a heavy user of electricity. 3) Water quality issues. He requested comment on Utility Rule.
 - Cross state air pollution rule – replaces the clean air interstate rule. Sets a SO₂ and NO_x budget. It regulates approx 3500 facilities. Currently working with Texas about the issues that have come up with some of the facilities. Not in agreement with ERCOT (?) about their predictions on liability issues.
- Cynthia Cory commented about the RICE Rule and asked for help fixing the problems.
 - Ms. McCabe stated that EPA would need data/info on what this really means. Wants to work on this and understands that the initial steps have been taken with Robin Dunkins (EPA).
 - Rick McVaigh indicated that CA has identified 426 engines so far. Gave background. Can provide the info needed to further resolve this. However a better procedure is needed for coordination.
- Ms. McCabe stated that EPA often uses NACAA Ag Committee to communicate.

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- Paul Martin stated that the NAEMS FACA group solicitation [SAB nominations] – need more time and requested that EPA keep the website open another week. Requested to see the list of nominees before the nomination is closed.
 - **Ms. McCabe stated that she was not sure if that is possible, will check.**

LUNCH

The Agricultural Air Quality Task Force recessed for a one-hour lunch.

COMMITTEE UPDATES – AIR QUALITY STANDARDS COMMITTEE

Dr. Brock Faulkner introduced Dr. John Richards and provided background information on the Air Quality Standards Committee:

- Decided to focus on the potential impact of a new particulate matter standard (PM).
- Noted the current maximum for PM has a 24-hour standard of 150 micrograms per cubic meter so virtually a 99th percentile.
- Noted that for fine particles they have an annual standard of 15 micrograms per cubic meter and a 24-hour standard of 35 micrograms per cubic meter.
- Stated that in the policy assessment document the EPA (Environmental Protection Agency) had said if they could retain the current PM10 standard or go to a core standard that was a 24-hour standard, in the range of 65-85 micrograms per cubic meter with a 98th percentile instead of the 99th percentile. Confirmed that the staff at the EPA had concluded that a standard at the level of 87 micrograms per cubic meter was generally equivalent to the current standard.
- Noted that the EPA had recommended some changes to the annual standard and 24-hour standard for fine particles as well.
- Emphasized that it was that focus on the change in the core standard that was of concern to the agricultural community. Explained that they had asked Dr. John Richards, the president of Air Control Techniques to come and discuss the standard and the potential impact of that standard.
- Stated that Dr. Richards would present and then they would discuss the recommendations of the Air Quality Standards Committee for consideration by the Task Force.

THE BASIS FOR SUPPORTING RETENTION OF THE EXISTING COARSE PARTICULATE MATTER NATIONAL AMBIENT AIR QUALITY STANDARD

Dr. John Richards, President, *Air Quality Techniques, P.C.*

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- Stated that he would be presenting from a document that he had prepared for the Coarse Particulate Coalition, a group of five organizations that operated approximately 12,000 facilities and employed about 150,000 to 200,000 people.
- Noted that these organizations had come together out of concern with the coarse particulate matter standard and he stated those concerns were shared by the agricultural community.
- Described his background and stated he was a chemical engineer and had been in the business since 1969. Stated he was previously in the National Air Pollution Control Administration which was absorbed into the EPA. Noted that as a result he saw the national air ambient quality standards at their inception and some of those same issues continued.
- Explained that Air Control Techniques did ambient monitoring, developed ambient monitoring methods, did stack sampling, worked on air pollution control equipment and tried to get emissions down.
- Stated that during his presentation there would be three primary issues, one would be the spatial non-uniformity of coarse particulate, the second would be the quality of the PM₁₀ data which he would touch on and the third would be the background levels of coarse PM which he did not think were adequately characterized and were higher in the west than the east. Noted there was also a fourth issue concerning health effects but these would not be discussed during the presentation.
- Discussed coarse particulate matter:
 - He noted it was different from other criteria pollutants, such as CO, SO₂, NO_x, ozone and lead which are clearly identifiable chemical species.
 - Coarse PM is comprised of diverse constituents.
 - The five criteria pollutants have consistent properties.
 - Coarse PM is represented by PM₁₀ and this was used as a surrogate which expanded the scope and diversity of the pollutant category and gave it significantly different physical properties.
 - He illustrated the differences with some slides including particle size, particulate matter bimodal distribution, and coarse mode sub-ranges.
- Continued looking at the data focusing on particle size and properties:
 - He looked at fine mode particles which could travel hundreds of miles before removal from the atmosphere, has high surface areas, and consists primarily sulfates, nitrates, carbonaceous material, and ammonium compounds.

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- He looked at coarse mode particles and noted they travel short distances before being removed from the atmosphere, has low surface areas, and is primarily composed of fugitive dust, pollen and sea salt, and other mechanical attrition sources.
- These two categories are widely different but lumped together, and this is problematic.
- Discussed the fundamental principles of the national ambient air quality standards and noted that they could be adequately assessed by a few area monitors, (from two to three and maybe up to ten and twelve).
- Stated that the health effects in a community could be adequately assessed by the monitors. Noted that air quality differs greatly when you go through valleys. Noted that there was a fundamental problem in applying the basic concepts of national air quality standards to this unusual pollutant of coarse particulate matter.
- Noted that he did a substantial amount of ambient monitoring for industrial facilities and they often did that in cooperation with state agencies which also set out monitors.
- Stated that they often had monitoring stations close geographically, both upwind and downwind of a facility, also using co-monitors to increase precise measurement.
- Noted that they saw large spatial differences in coarse particulate and it would not be surprising as their models predicted those figures.
- Discussed spatial differences in PM10 concentrations and what a person would be exposed to during their time outside could be a very complicated issue and not well defined by existing data. Stated that this would undercut the whole issue of epidemiological studies where they would not know what the individual who had asthma or what other impact they would be exposed to during the day.
- Noted that the whole basis for area monitoring for a pollutant with spatial non-uniformity as great as coarse particulate should be re-evaluated. Stated that he did not see that in the ISA (Indiana Soybean Alliance) or the policy assessment document and stated also that for the past 15 years the groups that he represented did not see that sort of study being done.
- Discussed his second point, data quality concerns:
 - The agencies are under financial distress.
 - There was a downward trend in the number of PM10 monitoring locations in the U.S.
 - There were many incomplete three-year data sets. States were also not doing sufficient QA (Quality Assurance) so the data was of a lower quality.
 - Large variations in co-located monitoring data results.

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- Certain monitors while acceptable would not have good data without qualified staff and resources to maintain them.
- He thought that the ISA and PM document is that there was not a reassessment of data quality before a large effort was put into the health effects research.
- He stressed the importance of ensuring that raw data was of a high quality before making complicated analyses and consequential conclusions.
- Discussed his third issue which was background concentrations and differences in the east and the west:
 - He reviewed a slide showing concentrations in Philadelphia.
 - He reviewed a slide showing monitoring in Phoenix and showing spikes related to weather. He added that many locations in west had similar spiking.
 - One of the reasons for this was weather in that there was little rain in the West, Southwest, and Midwest. An emission that was dominated by fugitive dust or no rainfall and water would have a big impact.
 - He illustrated the levels of rainfall and wind patterns and noted that there were higher wind speeds in a good part of the Midwest.
 - He explained that it made the entire region more susceptible to fugitive dust emissions which are primarily natural but sometimes coming from uncontrollable sources like unpaved roads and some natural conditions such as dusting from the Gobi Desert.
 - He stated that the data clearly showed what seemed to be exceptional events but were not labeled as such. This reflected insufficient resources to correctly evaluate data, so data was collected but not analyzed.
 - He discussed the inaccurate labeling of events in data and events that should be distinguished as repetitive routine events being labeled exceptional events.
 - He discussed data collected from an open-air quarry and the PM10 atmospheric deposition, and how proposed new standards could be used by advocacy groups.
 - He discussed a site-specific dispersion model concerning national ambient air quality standards.
- Discussed the areas that he considered potentially vulnerable to exceed the standard bearing in mind the absence of data and lack of sufficient monitors:
 - Only approximately 12% of the counties in the country have monitors.

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- He considered that areas of annual precipitation equal to or less than 20 inches per year were vulnerable.
- He looked at areas where the annual average winds equal to or greater than 7 meters per second at 80 meters.
- He looked at the closest PM10 monitors of any type, were they at least 50 on a 98 percentile basis.
- He said that he could have included other issues like wild fires and prescribed burning, more unpaved roads and agricultural operations.
- Showed a slide indicating areas where there could be exceedances of the potentially advised standard whether it is 85 micrograms per meter, 75 or 65, based on the above parameters. Noted the dominant area is from central Texas to the west with some spotty areas in the east.
- Stated that he would say that people in that area needed to be especially interested in this standard, to provide what input they could so these areas would be included if studies were done to obtain more data. Noted that it was not final but until the data was in place he considered from an industrial standpoint and the agricultural standpoint that this was the position they would have to look at and the area of concern.
- Discussed the consequences of a potentially revised national ambient air quality standard:
 - It would increase the risk of new emission regulations that might not address issues causing exceedances.
 - It complicates source permitting.
 - It would increase vulnerability to litigation from private groups.
 - It might contribute to unemployment and the health effects associated with it notably in the West, Southwest and Midwest.
- Read through his conclusions:
 - He stated that there were significant issues concerning spatial non-uniformity of coarse particulate matter and the adequacy of widely spaced PM10 monitors to assess ambient air quality and population exposure.
 - There are significant issues concerning the quality of the available PM10 data.
 - There are significant concerns regarding the stringency of the potentially revised standard and the background PM10 levels in the West.

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- He noted that industrial and agricultural sources in the West, Southwest and Midwest would be vulnerable to noncompliance caused by natural fugitive dust emissions or other uncontrollable fugitive dust sources.
- Reviewed the recommendations:
 - The EPA should retain the current coarse PM National Ambient Air Quality Standard (NAAQS).
 - If the EPA intended to continue to use the PM₁₀ as a surrogate for coarse PM, it should require state and local agencies to:
 - Upgrade their monitoring networks and
 - Upgrade quality assurance monitoring of the PM₁₀ air quality data so that critical regulatory decisions are not made on the basis of flawed data.
 - Resolve the composition and health issues.
 - The spatial non-uniformity is resolved.
 - A comprehensive and clear exceptional events identification procedure should be resolved to reduce data flaws and because of the spiking characteristics. A better idea is needed to identify what sources contribute and patterns.
 - The EPA should encourage and support state and local agency deployment of coarse PM concentration monitors.

COMMITTEE DISCUSSION

Mr. Graves first asked if Ms. McCabe would like to ask anything bearing in mind her tight schedule.

Ms. McCabe noted that Dr. Richards had extensive experience and she thought that he had seen more PM₁₀ data than the federal government because he worked with private companies. She hoped that his experience and information could enter into regulatory processes. She added that she wanted to mention several things, that as they went through the standard-setting process they had the Clean Air Science Advisory Committee (CASAC) reviewing all of the documents and deciding whether the data was adequate to make judgments. She noted that it was important and appreciated Dr. Faulkner's introduction in which he clarified that in the EPA staff paper there were alternative recommendations. She added that it was important to note that decisions had not been made for changes and at times people assumed certain issues were decided sometimes from how information was presented to them.

Dr. Ray Knighton stated that when it came to sampling PM₁₀ what was the representative elementary volume that one would need to be collected to adequately and statistically describe the ambient air quality? He clarified his question. He asked what was the volume of air that they would need to sample to describe air quality and specifically PM₁₀? Dr. Richards responded in detail but understood the

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question incorrectly. Dr. Knighton explained his question once again. Dr. Knighton asked how they could put one sampling device out in an air shed and just because one would capture so much mass you would have adequately described that airshed. Dr. Richards stated that he was thinking about it in a geographical sense in that how many monitors would you put in an area to adequately characterize it. He responded by saying what they did on studies. He noted that they would begin by doing a dispersion model of the whole area and that would guide them on the number of monitoring locations. They would propose it and then consider the economics. He noted they usually had two so they have co-located monitors. He added that if they were doing monitoring for a large area like a county the number of monitors would be far greater. They discussed the details further.

Dr. Bill Norman asked if Dr. Richards could briefly relay what comments or feedback he had heard on the report since it came out in June. Dr. Richards said they sent it to the EPA but did not receive an acknowledgement back. He noted that they started requesting all the data in October of 2010. The EPA was not able to do that so the report was finished without their data. The EPA provided the data after it was done and the data was similar. He noted that they hadn't heard from any other groups.

COMMITTEE UPDATES – EMISSIONS QUANTIFICATION COMMITTEE

Mr. Paul Martin explained the reasons for the absences of so many members of their group and noted the following:

- Stated that they had become aware that the reactive nitrogen issue was taking more of a center stage than at the last meeting.
- Advised that Mr. Bill Herz was on the Scientific Advisory Panel (SAP) for the reactive nitrogen study and was a co-author of the report.
- Noted that he [Mr. Herz] would discuss the primary findings and recommendations that came out of that report.

Bill Herz, Vice President, Scientific Programs, The Fertilizer Institute

- Stated that he appreciated the opportunity to come before the committee to present the findings to them.
- Confirmed the standard disclaimer; that although the recommendations came directly out of the Science Advisory Board (SAB) report and were verbatim, the views expressed were his.
- Discussed the problem statement:
 - There is currently too much reactive nitrogen and agriculture touches much of it, up to half of the reactive nitrogen.

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- He explained that reactive nitrogen is any form of nitrogen besides N₂ so almost all forms or all forms generated in agriculture and the emission they deal with are reactive nitrogen.
- Reactive nitrogen provides essential benefits as a fertilizer for food production. He added that all U.S. citizens consume food grown with nitrogen and most reactive nitrogen used in food production is ultimately lost to the environment.
- He noted that even though they were working on many fronts to increase the efficiencies of agricultural producers, ultimately humans consumed that food and the food went through waste water treatment plants. The nutrients are stripped out or released and he stated that only so much can be done within agriculture given that nitrogen is an essential element.
- He stated that in certain systems the problem is too much nitrogen but in many systems, lower productivity systems, the problem is not enough nitrogen or nutrient.
- Noted that dealing with the problem was quite complex. Stated that initially they set out to do a report that was 150 pages or less but the report was slightly under 400 pages with references taking almost four years to complete.
- Stated that The Fertilizer Institute (TFI) had been involved with the International Nitrogen Initiative (INI) for 11 years by funding it, participating and supporting research.
- Noted that the work going on with the SAP had informed and allowed them to look out ahead of the curve and try to initiate research and projects.
- Discussed their stewardship program and stated involved using the right nutrient source at the right rate, time and place.
- Thanked USCA (U.S. Cattlemen's Association) for their cooperation and noted that The Fertilizer Institute had a grant to transmit and develop materials to educate producers. Stated the importance of addressing all issues to have a complete approach in handling the nutrients. Noted that this would have to be overlaid with site-specific conservation measures.
- Stated that with sources basically half of the reactive nitrogen was agriculturally-sourced. Discussed the chemical process that was used to produce ammonia. Explained how in the production of ammonia they also co-located a urea plant. Explained why there was a natural synergy between the two. Discussed the chemical processes in some detail. Explained how The Fertilizer Institute had communicated with the EPA and the discussions that had occurred regarding CO₂.
- Looked at the other sources using a slide, fossil fuel, natural formation and industrial sources. Noted that agricultural sources had a big piece of the pie.
- Described another diagram that illustrated the slippery nature of nitrogen and even though performance could be improved in some areas, the nitrogen would move around. Stated that not

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every molecule of nitrogen or reactive nitrogen was created equally. Clarified that nitrogen released to different media had different costs and he gave some studies, including one at the Chesapeake Bay, as examples.

- Stated that there were some over-arching recommendations but noted first that:
 - He stated because of the cascade, an integrated approach was required to manage reactive nitrogen.
 - He stated that they need to use iterative processes to improve the effectiveness and lower the cost of implementation policies.
 - EPA should work with a number of different agencies involved in the process, specifically USCA.
- Gave the recommendations and stated he would also include commentary on work they were doing at the TFI and in the agricultural community:
 - To increase the specificity and regularity of data on fertilizer applications in major agricultural crops. This would include a means to calculate the nitrogen fertilizer use efficiency or the nutrient use efficiency as importantly with P and nitrogen-masked balances like props, to be done on smaller scales and include urban nutrient use. He noted that data collection regarding commercial fertilizers has only one source in the U.S. and it is called The Commercial Fertilizers Report. Stated that it only covers 30 states and is generated from sales data but is used for environmental modeling. Commented that this type of data was being used to drive regulatory objectives, specifically in areas like the Chesapeake Bay area which he found problematic and he elaborated on this subject. He noted the lack of good data on crops such as corn.
 - Research should be conducted on fertilizer BMPs (Best Management Practices) that effectively control reactive nitrogen while increasing nitrogen uptake efficiencies. Explained the argument within the context of the SAB was the ecologists urging that nitrogen use should be reduced but others believe that that is not the way to address the problem, as many commodities are pushed to the limit. He stated that approaches of that type were the reason they had low levels of corn and winter wheat among others. He stated that if you reduced your nutrient use with a focus on reducing reactive nitrogen then one would not be pointing productivity lines at the future food demand of the world. He stated that neither the economics nor public health aspect argued for reducing nutrient use. He said that systems needed to be studied to increase their efficiencies. Stated that the committee agreed that the nutrient use efficiency paradigm was the one to employ within agriculture to obtain an efficient and cost-effective approach.
 - He discussed livestock management, manure handling, ammonia transfer and stated that one would be taking into account phosphorus loadings. Stated that the committee wanted to consider adding chemically-reactive nitrogen as a criteria, and as a supplement, the ambient air quality standard and that states should be encouraged to look at ammonia as a PM 2.5 precursor. He stated his concerns and noted that he was still struggling with the epidemiology

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and the link. He noted that there was a complex role between ammonia and PM 2.5 and he thought that deserved further study.

- In inter-agency research he thought that the reduction of uncertainty estimates in N₂O emissions from agriculture should be studied. He added that would include the land grants and policies that reward farmers who reduce N₂O emissions.
 - He mentioned the CIG (Conservation Innovation Grant) programs that Chief Dave White announced targeting \$8 million at programs that look at implementation of BMP that can reduce in a quantifiable way N₂O emissions.
 - He discussed the N₂O abatement system that they had approved in Canada called the NERP (Nitrous Oxide Emission Reduction Protocol) which they compared against the ACS (Agricultural Cooperative Service) and the VCR protocols and then look at the best available data sources. He said that this concerned developing market-based mechanisms in which farmers could sell off-sets into the market for those who needed off-sets.
 - He discussed the manufacturing side and he noted that they had been able to work with their nitric acid producers. He said having worked with companies such as Coca-Cola and Tropicana and other food production groups, these companies wanted to see a reduction in the footprint in the input that goes into producing their products. He noted that these companies were under pressure from suppliers, buyers, the public and others to reduce. He added for fertilizer, if they looked at the 'cradle to the grave' approach for fertilizer production then they would need to look at the beginning with nitric acid, a precursor of many of the nitrate-based fertilizers. He said that certain types of nitric acid plants had N₂O emissions. He added that they had been able to implement a voluntary abatement protocol through the Climate Action Reserve (CAR) that rewards manufacturers for voluntarily implementing N₂O abatement and would allow them to sell the offsets into the Climate Action Reserve market.
- Stated that agricultural emissions should be monitored and assessed utilizing a nationwide network of monitoring stations:
 - He noted that this was very expensive and they should look at the synergies of their existing monitoring networks.
- Stated there should be a high priority assigned to increasing funding for nutrient management. He noted that they were moving into a farm bill and budget season that promised to be challenging. He noted that many of them had already been informed of budget cuts but he emphasized that these were the priority recommendations. He said that TFI was a small to medium size trade association with approximately a \$6 ½ to \$8 million budget and over a period of five years they had taken their stewardship budget from \$300,000 to \$1.1 million so he noted they were trying to focus their efforts

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and utilize industry dollars and get cost-share dollars from industry partners and from working in cooperation with the USDA and other agencies.

- He discussed bio-fuels which were a big focus and source of debate within the panel. He said there was a lot of research going on assessing the lifecycle analysis, a main concern of the panel.
- He also mentioned programs that targeted wetland restoration and creation. He also discussed bio-remediation.
- Discussed other recommendations that intersected with agriculture. He discussed the RICE (Reciprocating Internal Combustion Engines) Rule and engines, controlling noxious emissions from small sources including farm equipment, diesel vehicles. He noted that they used electricity and natural gas to produce agricultural input.
- He talked about market mechanisms and the CAIR (Clean Air Interstate Rule) Rule.

COMMITTEE DISCUSSION

Ms. Annette Sharp noted one of the benefits of their diverse committee members was that they could point out things that have been done. She noted that with the Regional Haze Program many states participated in ammonia data collection. She said that took place through the Midwest and listed some of the other regions where partners took place in collection of data. She noted funding was lost but some NGOs (Non-Governmental Organizations) possessed that data and some data was published on their websites. Mr. Herz responded that it was good to know because he thought that datasets needed to be used. He stated that the data had to link with other data and that they needed to review what they used to assess the impact of PM 2.5 in incidence rates, hospital emissions, asthma etc. They should also assess heart attacks during high PM 2.5 and overlay high PM 2.5 plus ammonia or high PM 2.5 minus ammonia and ask if ammonia did truly increase the incident rates of what they used as the public health basis for this issue.

Mr. Robert Avant noted he had several questions and a comment. He asked about data, specifically regarding goods purchased at agricultural stores, at the point of sale and his comment that it was not good data. He said if it was not reported at point of sale then it would be point of use which meant farmer reporting, which he thought would not be popular in the farming community. He asked how he would he get the data he needed and how would he go about doing it? Mr. Herz stated his point was well taken. He noted that there were legal restrictions on what the USDA could do with data they collected and it would depend on identification of the farmer as well. He clarified that he was not advocating farmer reporting of nutrient use data, but often the data was available from point of sale. He added the Commercial Fertilizers Report came out as a need but it spun off of tonnage tax that the states collected. Their primary objective was getting paid not the collection of statistically correct data for an environment model.

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Mr. Avant asked about the BMPs and applications and asked if they were heading for a situation where broadcast application, over the top fertilizer application was banned. Mr. Herz responded that it depended on the watershed. He noted it was a matter of site specificity and he noted that you would see it in California living under mandatory nutrient management. He added that the USDA had a priority watershed program. He mentioned a progressive program called Keep It in the Crops which is industry and government funded in Illinois and he discussed this in detail.

Mr. Avant asked about emissions monitoring and the Farm Bill coming up and asked about data reporting and emissions monitoring. He asked where he saw that headed. Mr. Herz responded that he didn't see where there would be monitoring in every field. He noted that it was on a watershed basis that it really counted. Mr. Avant stressed the prevalence of broadcast fertilizer in certain areas. Mr. Herz acknowledged the significance of broadcasting but said that there are other things that can be tailored to specific situations, particularly use of inhibitors.

Mr. Avant commented that four years ago he presented on bio-fuels, fertilizer use for bio-fuels and discussed what it took to be successful, three resources: adequate nutrients, water and good land. He noted without those they would not be in the bio-energy business.

Dr. Knighton complemented the committee on a job well done with the report which he recommended the AAQTF use as a review document for nitrogen issues. He noted that one of his concerns when nitrogen use efficiency is discussed was the idea of permanence which he found was not addressed in the document. He thought it made a difference to show how the reactive nitrogen was being fixed. Is it permanently fixed where it would not move or cascade into other parts of the environment for 20, 40, 80, 100 years? Or if they looked at improving the nitrogen use efficiency going into an animal with an end produce of meat consumed by a human adult, then the cascade would indicate that every bit of that fixed nitrogen in the meat was going to end up in the waste water treatment system. For those reasons he thought the idea of permanence had not been addressed well. Mr. Herz responded that he made a great point and he thought that was true. He said he has received calls from engineers at waste water treatment plants with concerns about going lower to strip out more nitrogen. He discussed other companies that could make a commercially viable slow-release fertilizer for the urban market. He agreed that until it would get back to the N₂ state it was still not permanent, it was still reactive nitrogen.

Dr. James Seiber asked if there were areas of research that were not being covered that could contribute to either reducing the amount of nitrogen that was free that could come back in a cycle to cause problems in terms of atmospheric emissions. He noted that he was thinking about what he had heard concerning slow-release and encapsulated forms of fertilizer and nano-technology and its potential contributions to slower release. He asked if there was anything that needed a push in the research area that he saw as a promising way to increase efficiency and reduce use. Mr. Herz responded by drawing his attention to recommendation number two on the row-cropping and animal production BMPs and their effectiveness. He felt it was a site-by-site approach because cover cropping

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or the implementation of a precision-management guided 4-R system would vary depending on crop and region.

Mr. Herz gave the Chesapeake Bay for an example. He noted they had a complex model called Scenario Builder which had the potential for problems because the owner would input the BMPs that would reduce the amount of reactive nitrogen leaving the system so the model would respond with increases not decreases. He noted there were disconnects with the research they had on animal row cropping BMPs and how they are used in the environmental regulatory and the modeling context. He noted it would be good to have research dollars to get at the efficacy of the BMPs so they could be used appropriately. He noted that with the slow-release and enhanced efficiency products he wanted to see more land grants studying this issue.

Dr. Charles Rice noted that they would have more information and data and would have to have workable models especially with N₂O or ammonia. He felt that they would not be able to monitor or assess every field.

Mr. Wayne Honeycutt noted that as part of the nitrogen use efficiency consideration that some of the tools had their place but he thought it needed to be married with the dynamics of the plant uptake demands. He noted it was not just a different species but the dynamics of that demand as the plant grew in relationship to that availability. He thought some of their modeling should jointly combine those types of processes of availability and uptake.

He noted that they had about eight recommendations on the table and it was his understanding that a vote would be taken the following day. He asked if there was any other commentary with regard to the recommendations.

Dr. D'Ann Williams asked about the 'cradle to grave' aspect of his recommendations and wondered if he would comment on how that could be implemented and what recommendation could be made to the EPA. Mr. Herz responded within the context of the fertilizer industry. Here the food manufacturers like Walmart wanted to see a lower footprint. He noted that they were not particular whether it would be done at the manufacturing level or the field level, or both. He stated for example that the EPA already had a draft regulation that would lower the allowable level of NO_x within the fertilizer production universe. He noted that the EPA was addressing the 'cradle' side of it in a comprehensive way. He added that the larger challenge concerned the use of the products, producer uptake.

Dr. Richard McVaigh asked about the slide concerning ammonia particulate in which the recommendation stated that states should be encouraged to address ammonia as a PM 2.5 precursor. He noted that it was interesting because in the San Joaquin Valley they investigated ammonia as a PM 2.5 precursor. He noted that a significant portion of their PM 2.5 was ammonium nitrate but he noted what they found based on their Central California Air Quality Study was that controlling ammonia was not a cost-effective or reasonable way to address the PM 2.5 problem. He asked if he was encouraging states to address ammonia as a PM 2.5 precursor or was the group asking the states to go ahead and consider. Mr. Herz responded that he would say 'consider' is the more appropriate.

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Mr. Martin noted that the committee did not present the report as their recommendations. He said this was the recommendations of the Scientific Advisory Panel. He added that they had not made a determination of what they wanted to bring to the Task Force. He said that he would ask that the information, and the PowerPoint presentations be sent to the members currently absent due to sickness and if there was any consensus on how they would like to proceed, then it could be presented on day two.

BREAK

The Agricultural Air Quality Task Force recessed for a 15-minute break.

Paul Martin announced that a letter had been drafted by the Emissions Quantification Committee which would be voted on the next day. He asked the members to review that letter.

AIR QUALITY STANDARDS SUBCOMMITTEE RECOMMENDATIONS

Dr. Faulkner referred to the copy of the white paper containing recommendations sent out the previous week and referred members to their copies in their binders. He confirmed that there were three recommendations:

He pointed out that in the policy assessment document there was a recommendation by EPA staff that either the current standard be retained at 150 micrograms per cubic meter in a one exceedance form or that EPA consider changing the standard to somewhere between 65 to 85 micrograms per cubic meter with a 98 percentile form. He noted:

First Recommendation:

EPA should retain the current 24-hour PM10 NAAQS of 150 µg/m³ not to be exceeded more than once per year on average over a 3-year period. This recommendation follows the guidance of EPA Staff and the CASAC that the current standard adequately protects the health and welfare of the public, and it avoids both:

o Basing a standard on health effects data that are plagued with uncertainty, and

o Negative implications to agricultural producers and processors that would result from adoption of a more restrictive standard with a 98th percentile form.

That is basically retaining the current standard. He confirmed that was their first recommendation for the Task Force to consider the next day.

Second Recommendation:

Given the wide-spread use of the NAAQS by state and local air pollution regulatory agencies as property line concentrations not to be exceeded, the Secretary of Agriculture should request that EPA

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consider the consequences of changes to the level of a NAAQS on the New Source Review process in future Policy Assessments. The NSR process has significant design and economic implications for both major and minor sources of air pollution. Given the direct linkage between the NAAQS and the NSR program, it is appropriate that these implications be considered when assessing EPA's policy with regards to implementing a new or revised NAAQS.

Basically this would get down to the permitting issue. When the policy assessment was done to look at the implications of a new standard it had basically been done on a public, on a community scale exposure but there were tremendous implications for permitting of agricultural facilities.

Third Recommendation:

Most exposure studies quantifying the health effects of PM exposure have been conducted in urban areas, where the morphological properties of PM vary substantially from the largely crustal PM emitted from agricultural operations and to which rural communities are more commonly exposed. As noted by CASAC, "There is consensus that resuspended crustal dust is less toxic than combustion products" (CASAC Panel draft review from September 20, 2010).

The Secretary of Agriculture should support research to determine the constituents of PM that have the largest impact on public health and the differences in the PM composition of local and regional environments. Towards this end, CASAC has recommended that the EPA National Core (NCore) network be augmented by placing monitors at town centers in rural environments to begin to explore rural concentrations of PM₁₀, PM_{2.5} and PM_{10-2.5}, their individual composition, and their contributions to regional environment and air quality. The Secretary should support this expansion of the NCore network in an effort to inform future PM NAAQS review.

He noted that there was a lot of evidence that the chemical composition and morphological properties of rural of PM could differ substantially from that in urban areas but a lot of that is speculation and there needed to be some research to characterize those things and EPA's Clean Air Scientific Advisory Committee has recommended similar monitoring.

GHG AND BIO-FUELS COMMITTEE

Bob Avant introduced Mr. Don Scott from the National Biodiesel Board who he noted was responsible for the promotion of biodiesel in the country. He added that Mr. Scott had been asked to come and talk about some of the sustainability issues of bio-fuels in general and biodiesel.

Mr. Don Scott, *Director of Sustainability, National Biodiesel Board*

- Advised that it was a privilege to be there and share information about biodiesel and added that he planned to talk about renewable fuels in general and how carbon emissions are factored into their GHG footprint.

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- Confirmed that the country had to have sustainable liquid fuels which were the safest, most dense and economical way to store energy for transportation and mobile uses, comprising trucks, tractors, railroads, barges, airplanes and ships.
- Stated that it was critical that the country have liquid sources of energy or liquid fuels for food production and distribution of food. Every sector of commerce and public safety required liquid fuels. Stated that there were only two sources for liquid hydrocarbons, fossil fuels and biomass.
- Noted that it was important to distinguish the impact on GHG that came from those alternatives for liquid fuels.
- Stated that renewable fuels were driven by public policy and at the present time the energy policy was becoming more and more carbon policy. Noted that by getting the carbon policy right GHG emissions reductions could be achieved. Stated that the country could also achieve energy independence, more efficiencies within agriculture and additional environmental benefits.
- Noted that the science and policy had to recognize the fundamental difference between fossil carbon and biogenic carbon in order to be able to advance renewable fuels.
- Reviewed a graph which illustrated the connection between policy and renewable fuels which showed a history of the volume of biodiesel production in the U.S. Noted that biodiesel only became a commercial industry in 2005 in direct response to enactment of the Federal Biodiesel Tax Credit. Stated that when the credit was not in effect in 2010 significant volumes of biodiesel production were lost.
- Noted that in 2011 the credit was back in place and they were on course to set record production of 850,000 million gallons of biodiesel. Stated that the chief priority for the National Biodiesel Board was to extend the tax credit currently set to expire at the end of December 2011.
- Showed slides illustrating the production of biodiesel fuel from soybean oil and other food stocks. Noted the diversity and the fact that the industry was pulling in more and more waste and byproducts and could handle fats, recycled grease and other forms of vegetable oils. Stressed that soybean oil was important and illustrative of how biodiesel links with agriculture production and how the lifecycle emissions were quantified.
- Explained that there were several layers of policy impacting renewable fields, both biodiesel and ethanol and other renewable fuels. Noted that there was the Federal Tax Credit, regional low carbon fuel standards like that in California and currently being considered in other states, a whole variety of state and local incentives and mandates encouraging production or use of bio-fuels.
- Described the policy that he wanted to discuss specifically and that was the Renewable Fuels Standard. He noted it was the most impactful policy and that it served as a good model and illustration of how the GHG emissions were factored into that policy.

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- Noted that the Renewable Fuels Standard defined specific categories of renewable fuels and it had specific volume requirements within each of those categories. He detailed the information on the slide pertaining to the Standard:
 - The yellow column was conventional renewal fuel and all fuels have to meet a minimum 20 percent GHG reduction. By 2022 the requirement would be 15 billion gallons of conventional renewable fuels
 - The column with the blue heading, the biomass base diesel category. To qualify for a biomass base diesel a fuel has to have a 50 percent GHG reduction. That would require a billion gallons of biodiesel annually beginning in 2012 through to 2022.
 - The column with the orange heading is advanced bio-fuel. It has a GHG threshold of 50 percent reduction compared to petroleum. This category maxes out at a 4 billion gallon requirement in 2022.
 - The column with the red heading is for cellulose bio-fuel which has to meet a GHG reduction of 60 percent and the requirement caps out at 16 billion gallons in 2022.
- Provided the definition of the lifecycle GHG emission in the statute and the rule. Explained how it defined the emissions and how it was used by the EPA in trying to measure if those fuels met specific thresholds. Detailed the definitions and discussed emissions.
- Explained he would discuss the differences between biogenic carbon and fossil carbon as incorporated in the EPA's current analysis:
 - Lifecycle analysis for direct emissions of a bio-fuel, the EPA is counting the GHG emissions from fossil fuels used to produce fuel which has been traditionally discounted.
 - Traditionally accepted that if there is land-use conversion, direct land-use conversion, that there is a biogenic emission of carbon associated with that land-use conversion. He stated that that could also be included in the fuel lifecycle; that biogenic carbon emission from direct-land use changes or has been officially zeroed out in the RFS because of that specific requirement. Noted that if all the fuels in the program have to meet the definition of renewable fuel and renewable biomass which says they cannot be produced from land that was cleared or cultivated after the enactment of the law in 2007.
 - The biogenic carbon that does play a role in the EPA's analysis is that indirect land-use change. The EPA developed a set of models to quantify what the emissions would be. The theory is that the bio-fuel may increase the commodity price but the commodity price may then stimulate increased crop acres. The new crop acres in new regions of the world might displace livestock grazing on that land. If the livestock move into a forested area and there turns out to be forest conversion into pasture land there would be a large biogenic carbon emission associated with that.

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- In case of consequential results there is a question. The EPA had the difficult job of deciding if the events would occur and then if they had to quantify it. The EPA would use models to try to answer some of the questions. The process is predictive and speculative and had been considered controversial.
- Showed a slide showing the direct GHG emissions from producing a bio-fuel and it represented soybean oil-based biodiesel and explained in detail and noted the specific components of soybean oil.
- Discussed the displacement method, a consequential analysis concerning the question of indirect land-use change. Noted that it would ask the question if the soybean crop was not being grown, if biodiesel was supporting the use for the oil and we were not going to grow it, what would be grown in its place to provide a similar amount of protein to livestock. Noted that the next most efficient crop would not be as efficient in providing protein as soybean and there would be more GHG emissions associated with that crop. Noted that there was a high benefit when looking at biodiesel if the displacement type analysis was used.
- Summarized the results of the EPA determined specifically for soybean oil-based biodiesel:
 - Quantified the direct carbon intensity for soybean oil-based biodiesel.
 - Calculated the indirect emissions.
 - Calculated the direct GHG benefits of soybean oil-based biodiesel of 85 percent compared to average 2005 petroleum.
 - Adding in the penalty for estimated indirect emission it reduced the benefit to 57 percent.
- Showed a slide showing all the lifecycle analyses completed by the EPA for all the fields that qualify for the RFS. Noted that it showed all the feed stocks for which they had completed analyses.
- Noted that the difference between the biogenic carbon and fossil carbon was the fact that the biogenic carbon was taken up by plants and plants could re-grow that seasonally or over a period of years, while carbon extracted from fossil fuels literally took hundreds of millions of years to make. Stated that over the last 100 years people have been extracting that and putting it into the atmosphere resulting in a GHG problem. Stated that people had been overriding the earth's natural carbon cycle. He elaborated on this with comparative figures.
- Noted the importance of protecting the forests but also stated that even if people covered the earth in trees it would not absorb the amount of carbon that was currently being taken from the ground in fossil fuels. Confirmed forests had to be protected because of bio-diversity, habitat and their role in the hydrologic cycle but protecting forests alone did not solve the GHG problem. Stated that the extraction of fossil fuels had to be slowed down.

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- Stated that one of the goals of his industry was in the setting of a responsible goal. Stated that their goal was to displace 5 percent of diesel fuel by 2015. Noted that it was significant in terms of energy security and emission reduction.
- Discussed some other environmental benefits of using renewable fuels like biodiesel in addition to lifecycle carbon reduction:
 - Produces cleaner, safer diesel exhaust emissions.
 - Has superior energy efficiency, specifically in the production of the fuel.
 - Improves food security.
 - Biodiesel is non toxic and biodegradable.
 - Biodiesel reduces waste water and hazardous waste production compared to petroleum use and production.
 - The USDA has continued to update the energy balance for biodiesel as farming has become more efficient.
 - Newly released data shows that for every unit of energy put into producing biodiesel five and half units of usable energy are produced.
 - Over the last decade soybean yield has increased by 15 percent. Farm energy use decreased by 20 percent. The energy used to produce biodiesel converting vegetable oils into biodiesel reduced by 45 percent.
 - Noted that livestock was the main driver for soybean production in the U.S. but there was a segment of the population that used soy protein for human nutrition.
 - Biodiesel has positive impacts on water quality. It is non toxic and biodegradable and in the event it is spilled in the environment the risk is much less than petroleum.
- Noted that bio-fuel adoption did rely on public policy and the policies needed to recognize the benefits of biogenic carbon and bio-based fuels. Noted that the right policies and right bio-fuels could bring many benefits in addition to GHG emissions. They included energy security, domestic jobs and economic growth. Noted that currently the U.S. biodiesel industry supported about 31,000 jobs with the potential to double that if they met their 5 percent goal by 2015.

COMMITTEE DISCUSSION

Mr. Avant asked if he could address the issue of biodiesel and NOx emissions. He noted that it could increase NOx emissions by a little, but there were areas that had tight restrictions on NOx where a little bit could be a lot and take them into non attainment. Mr. Scott responded that it was important for

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Texas and 110 counties where they had strict limits on NOx. Mr. Scott confirmed that biodiesel was used in those counties and he said that they required an additive for a higher blend in order to prevent NOx emissions and he confirmed that California was going through the same process. He said that the 2010 diesel engines with NOx after-treatment take care of that problem as they are all clean. He said that until the legacy fleet was rotated out California would still be very strict on allowing no NOx backsliding.

Ms. Sharp noted that in the states that she worked with they had an issue with air quality agencies regarding the heavy and sudden population of bio-fuel facilities. She said there were some concerns over this huge water use especially in some states experiencing drought conditions. She noted another issue was the dust and discharge into local waste water and streams. She also expressed concern over the safety issue with the amount of trucking taking place through smaller towns. Mr. Scott responded first about the water issue. He said the conversion of oil into biodiesel took only a small amount of water. He added that they had spoken to their members who confirmed they could reduce the water with some increase in energy use. He said in 2008, their biggest production year, their entire industry nationwide used the same amount of water that it would take to irrigate two golf courses. He agreed there was a difference, an increase, in transportation changing to de-centralized production all over the country from the more centralized petroleum and this resulted in more truck traffic.

EMERGING ISSUES COMMITTEE

Ms. Cynthia Cory discussed some of the issues their committee wanted to discuss including the Farm Bill, agricultural funding and agricultural incentive programs important to air-agro quality. They were also interested in nitrogen and sustainability. She noted that Dr. Norman had done a lot of work in the cotton industry and that was why they had asked him to share some of the work he had done. She introduced Dr. Norman who would be presenting on the National Cotton Council.

Dr. Bill Norman, *National Cotton Council*.

- Thanked the committee for the opportunity of bringing them the presentation.
- Stated that he would be discussing an effort that their industry was part of but it was not cotton specific and this was 'Field to Market'.
- Stated that it began in 2005 when a multi-commodity, multi-stakeholder group looked at sustainable agriculture facilitated by the Keystone Initiative in Colorado.
- Noted it was a collaborative group of stakeholders made up of producers, agro-businesses, food retail companies and conservation organizations, NGOs (Non Government Organizations).
- Stated that the original focus was on defining and measuring the sustainability of food and fiber. Included looking what had been done in the past and what would happen in the future.

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- Agreed as a group with a 100 percent consensus that they would work on outcome-based metrics not prescriptive standards or methods.
- Noted they would look at the environment and social economic impacts and then provide tools to help growers energize their own operations so the information would proceed through the entire marketing chain from food companies to consumer.
- Presented the list of stakeholders and noted that it was comprised of companies, agro-groups and environmental organizations. Stressed the fact again that agreement by the whole group was an important issue.
- Asked how they defined sustainable agriculture and confirmed that they were trying to meet present needs while improving the ability to meet the needs of future generations. Stressed need to increase productivity, decrease the effects on the environment, improve human health and the social and economic wellbeing of agricultural communities.
- Outlined their process:
 - The first step was that they would use outcome-based metrics, deciding how to measure the outcomes.
 - Stated their goal was to begin at the national level on environmental indicators for corn, soy, wheat and cotton.
 - Begin a longer-term effort working on indicators that were not readily available in bio-diversity, water quality and social-economic impacts.
 - From 2005 to 2009 when the report was released their goal was to work on their environmental indicators report, which was outcomes-based. The criteria used for the development was to be practice and technology neutral, it has to be transparent and credible science and the measures had to be on farm production outcomes that were within the growers' control.
 - They looked at corn, soy, wheat and cotton and there were five sets of metrics that the group agreed to: land use, soy use, water use, energy and climate. He noted that energy included fertilizer.
 - They looked at data available from 1987 through 2007. They agreed that their methods and data had to come from publicly available data. No private data was used.
 - They worked at a national scale with a national set of indicators and the public data was easily available. Decisions had to be made on how to report and combine commodity by commodity in a fashion that would be comparable on a year by year basis.
 - He presented a comprehensive slide with the total picture of indicators, outcomes from 'Field to Market' that the group planned to address. Noted that the report under discussion was

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reflected by the areas in green. Confirmed that it revealed they were only scratching the surface.

- He discussed some of the areas of work done and anticipated work. He noted that several of the more challenging areas were water quality and bio-diversity. For bio-diversity he said there had to be a decision about what species, or group of species, would one use to define how your bio-diversity would be improved. He asked would it be mammals, bird, soil-borne critters and would it be in an 80-acre field or a broader environmental footprint. He discussed birds as a species and elaborated on the issues they would have to consider.
- Noted the report was completed in late 2007 and then they began a peer-review process with 17 outside reviewers. Stated that the report could be accessed on their website together with all the feedback and appendices.
- Described the conclusions of the report as of September 2009:
 - Production agriculture has become increasingly efficient. An example given was soil loss trends with a significant improvement in soil loss.
 - It suggests that progress is being made to meet the increasing demand of a population while achieving less environmental impact. He discussed this and used cotton as an example to illustrate this fact but said it applied to other crops as well.
 - He said that members of the group saw the results that were representative of a national picture. They then asked how could they make contact with a producer or group of producers and know that the national information is representative of what an individual group is doing.
- Referred to a slide and noted a new member of the group as of late 2009. Noted that Chief White and the NRCS became a member of 'Field to Market'. This was significant due to their next step which was to address the concern about what is being done on the local level, field-by-field and producer-by-producer level. Stated that NRCS was the key component of how they would be able to do that.
- Stated that after the report was completed they developed a field-print calculator, currently in version 2.0. Confirmed it was an online tool for individual growers to go online and enter their own data on a field-by-field basis taking into account management practices, fertilization, irrigation, tillage, energy use and trips to field. Explained they would then be able to gage themselves against national indicators.
- Stated that due to the nature of the way information was inputted and privacy issues they had not been able to aggregate the information to be usable. Stated they were still improving the technology for the calculator. Noted that many farmers would use this tool to compare their own productivity levels with neighboring farms.

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- Described eight pilot projects ongoing and discussed one of them, Bunge Corporation with a facility in Nebraska. Noted that the company took corn from a group of producers and had them go through a field-print calculator exercise. Explained the producers could then compare themselves against their peers. Described other similar studies by Cargill, Syngenta and the Nature Conservancy.
- Noted that they would be doing two projects in cotton, one with a group of 12 growers in Louisiana. Added that was the area where the relationship with the NRCS began. Advised that they planned to have another project with growers in Texas.
- Confirmed that they feel the field-print calculator would have value for producers to enter the information and help themselves understand their own processes and give them an introduction into NRCS programs.
- Stated that they started with four commodities but had now added rice, potatoes and peanuts. Hoped to add eventually some specialty crops and vegetables.
- Described some other ongoing initiatives:
 - One is the Leonardo Academy ANSI (American National Standards Institute) development of a standard for agricultural sustainability. He stated that it was a prescriptive-based standard. It is an effort to develop a standard for agricultural production based on some of the floor-culture standards that have been developed over the last six or seven years. Leonardo Academy is an organization in Wisconsin that is a certified standards developer within the ANSI process. Production Agriculture was a member and involved in the process up until the fall of 2010 when they pulled out. He noted it was not technology neutral.
 - Another initiative for sustainable agriculture would be NISA (National Institute for Sustainable Agriculture). Noted that it was more the Production Agriculture version as opposed to the Leonardo standard.
 - The sustainability consortium. This initiative consists of Walmart, Disney, Proctor and Gamble and others and concerns developing a sustainability index that could be assigned to every product on a retailer's shelf.
 - In looking at the cotton initiative internationally they were looking at the Better Cotton Initiative, fair trade cotton, cotton sourced from Africa, approximately eight versions of different marketing schemes.
 - He confirmed that for cotton producers they see the 'Field to Market' initiative as being the main initiative they want to push. He noted it was technology neutral, had been a very transparent process and they believed they had a good set of numbers that tell them a story about production agriculture.

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- He mentioned one specific cotton project, the Vision 21 project. He described Vision 21 as a three-prong project in cotton. One of the prongs was the development of lifecycle index information as well as a lifecycle analysis on cotton from the agricultural production side to the textural production all the way through to consumer use and end-of-life of the product. It is a project of the Cotton Foundation and financially supported by Monsanto and John Deere and is jointly managed by the National Cotton Council, Cotton Council International and Cotton Incorporated. The results of the lifecycle index and analysis were released to the stakeholders at a July meeting in Dallas. The overwhelming driver on all aspects of sustainability in a cotton product was the consumer use and he elaborated on this.
- Noted that one issue was raised with him concerning his presentation. Stated this was, what is the aspect of sustainability in EPA and the report that the National Academy of Science produced.
 - Discussed the summary from the website of the National Academy and noted that the critical aspect of the report in the final paragraph. Stated that the emphasis of the study was to encourage the EPA to weave sustainability throughout their policy development. Noted that when the EPA has a Clean Air Act and a Clean Water Act that are specific in their mandate, working sustainability into that would be challenging.

COMMITTEE DISCUSSION

Ms. Sharp asked what parishes they were doing their pilot in, in Louisiana. Dr. Norman responded they were in the area of east and south of Monroe. He said he could not recall all but there was also a conservation district the parishes were all common to. She asked if they would use GIS technology. He said if it went into the development of their database then yes they would use it.

A member asked if the whole process was being explained to producers, not just so they could compare their figures to a neighboring farmer but how being part of a whole industry concerned with sustainability would benefit them, including issues that would benefit all like the marketing of items considered sustainable. He responded yes but producers felt strongly about issues such as their bottom line. He stated that producers, and he mentioned cotton specifically, had for several years been experiencing strong competition from producers of synthetic fabrics and that the cotton industry needed to promote itself aggressively. He stated it was important for their industry to present current, correct data and to strike down the damaging myths that surrounded the cotton industry and that existed from decades earlier.

Dr. Williams asked if they intended to try to include animal production on this. Dr. Norman responded beef and the dairy folks and pork producers would just have to come forward. Dr. Williams asked if he had engaged them. Dr. Norman responded that they had allocated their first prong or productivity level was to crops and going to animals was an entirely different set.

Dr. Williams asked about the socio-economic indicators and she said that she noticed there was a category called "Rural Character and Quality of Life". She asked if he could talk a little bit about what

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would go into the evaluation of that metric. Dr. Norman responded that that was one that had not been completed yet. He said it had been touched on with some of their international initiatives and discussed this.

Dr. Knighton asked how it all plugged into the sustainability council at USDA and he asked if there were any plans to validate and calculate, make measurements on farmers' fields to evaluate soil erosion (and entered into the calculator). Dr. Norman responded that he looked at NRCS and how they validated what they had. He said it was his understanding that it had all been part of the development of those databases and models. He said that was why he thought the involvement of NRCS was critical because the validation was part of bringing that together. He confirmed that was why they had partnered with NRCS. He responded to the first question and said he did not know if they were plugged into the council. He said he was aware of the council but that has not been their focus.

ADJOURNMENT

The Agricultural Air Quality Task Force adjourned for the day at 5:00 p.m. The Task Force will reconvene tomorrow, Thursday, September 22, 2011 at 8:00 a.m.

THURSDAY, SEPTEMBER 22, 2011

OPENING COMMENTS

Mr. Wayne Honeycutt, NRCS

- Welcomed the members back to the second day of the Agricultural Air Quality Task Force meeting.
- Noted that the members would be hearing from a distinguished panel on the Flint Hills burning.
- Stated that they also had some agency updates and an EQIP Air Quality Update in the afternoon.
- In the afternoon there would be some discussion with regard to recommendations of the committees.

FLINT HILLS BURNING DISCUSSION (MODERATED SESSION)

Susan O'Neill, NRCS - Moderator

- Confirmed that they were going to do a panel discussion on the burning in the Flint Hills.
- Noted that they had heard about the subject on the tour on Tuesday and now they would hear an overview of burning in the Flint Hills starting with a presentation by Dr. Clenton Owensby. Noted that he would be discussing fire ecology and the need for fire in the Flint Hills.

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- Stated that after they would hear from Mike Collinge, a private land owner and rancher who would talk about the application and need for fire in his operation.
- Stated that Doug Watson, a meteorologist from the Kansas Department of Health and Environment (KDHE), would give an overview the measurement data exceedances of the standards.
- Noted that Carol Blocksome from Kansas State University would be talking about the Smoke Management Program that has been put into place for the Flint Hills.

KANSAS FLINT HILLS ECOLOGY AND FIRE

Dr. Clenton F. Owensby, Kansas State University

- Explained that the Kansas Flint Hills ecology had included both grazing and fire as part of its evolutionary development. Noted that they needed to continue to maintain both.
- Noted that their research had shifted from using fire. Added that in the grazing management schemes they had been trying to find out exactly what was happening with respect to the amount of smoke and other pollutants that came off of the tall grass prairie.
- Noted it was originally an extensive area of 150 to 160 million acres and it encompassed the corn belt of the United States.
- The land was developed for farming and the area now left was a block known as the Flint Hills region of Kansas. Advised it also extended down into Oklahoma.
- Stated the Kansas Flint Hills were attractive and provided a resource for the Kansas ranchers.
- Said that some of the lands were limestone and shale and those areas were not ploughed.
- Discussed the plant community stratification both subterranean and aerial layering. Noted how different plants/grasses grew different root systems to obtain water. Stated that the aerial layering created individual micro-climate on the surface and elements such as winds affected this.
- Discussed temporal stratification where there was competition for nutrients so plants had different growing periods to cope with the limited resources. Stated that plants started to grow early in March and completed their reproductive cycle by June to avoid competition.
- Noted that the foothills of Kansas had a history of being what is called a transient steer grazing area. Noted that there were two grazing schemes that are dominant in the area. Stated they used to graze from early May until early October but in 1978 (approximately) Kansas State introduced a grazing scheme called the intensive early stocking. Noted that this meant they would double up the number of animals during the first half of the growing season and then the second half of the growing season the plant community was given the opportunity to generate sufficient leaf area to restore the carbohydrate reserves in those plants.

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- Noted the system of early intensive grazing was more efficient but marketing also had an impact. For that reason they had both systems; the intensive early stocking and the season long stocking.
- Noted that fire had been and would continue to be an integral part of the maintenance of the tall grass prairie. Prescribed burning has occurred throughout the Flint Hills regions since the middle of the 19th century. Stated that the Flint Hills region burned about two to two and a half million acres each year. Noted that it should occur in a wave starting in the southern Flint Hills due to the earlier warm-up there and then progressing north. Stated that people were always constrained by the weather so sometimes there was a compression of the burning times and on some days a substantial amount of burning. Stated that those instances created the problems by exceeding mandated levels for ozone in urban areas.
- Stated that for burning they used what is called a wet-line technique and use a spray rig travelling along the fence line where the cattle had grazed, spray a wet line along there and set the fire. Added that you then did a back fire into the area to create a fireguard and then you would go around and burn the bulk of the pasture through a head fire technique.
- Stated as per slide that the later spring burning (late April) did not reduce the productivity. Showed slides that showed that mid and late spring burning increased the productivity with an increased gain for the steers. Expanded on this discussion showing steer gains from 1950 to 1988.
- Stated that burning maintained a higher quality of prairie grass and rid the area of certain weeds.
- Illustrated with a slide the sprouting of woody species in unburned areas which made it un-grazable. Noted that fire frequency was a critical issue in getting rid of woody species from the lands.
- Stated that Eastern Red cedar was another species that proliferated in the Flint Hills. Showed that with no burning in 38 years it would create a closed-canopy juniper woodland. Noted in 1959 the number of trees was low but had increased by 1968 to such an extent that it would eliminate grazing.

Mr. Mike Collinge, *Private Landowner and Rancher*

- Confirmed that he ranched about 100 miles south of the area discussed by Dr. Owensby so they were a bit earlier in their season.
- Stated that although Dr. Owensby explained the reasons why the burning was done, he wanted to highlight three "E's", economics, the eco-system, and efficiency.
- Stated that economics was a big part of burning. Added that the Flint Hills were mostly privately-owned and Kansas is 49th out of the 50 states in the amount of federal land that was owned by the

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federal government, so most the land was in private hands in Kansas. Stated his point was that what happened in the Flint Hills was basically dictated by what the private landowners do.

- Stated that federal agencies were used for advisory purposes but management was done by private hands.
- Stated that private landowners felt they had a huge responsibility to take care of the Flint Hills. Stated that they tried to keep its tall grass prairie eco-system and fire was a huge part of that management.
- Noted that for economics all the research was done at Kansas State University and their anecdotal research showed that you could put a pasture side by side, one burned and one not and a yearling steer would gain 30 to 50 pounds difference from burned versus unburned.
- Mentioned the ecology of the area and confirmed that Dr. Owensby had explained this. Considered fire and the burning of the land as emotional for some people. Stated that it was an intense time of the year for them because they had a compressed timeframe. Stated for them it started around the 5th of April and went on for about three weeks and they tried to avoid putting smoke across highways and in towns.
- Stated that the burning should continue because he felt it was important to keep the tall grass prairie ecologically sound and economically sound.

FLINT HILLS SMOKE MANAGEMENT PLAN

Dr. Douglas Watson, Meteorologist, Bureau of Air, Kansas Department of Health and Environment (KDHE)

- Thanked the committee for inviting him to talk about the reason why the Air Quality Agency in the state of Kansas got involved with the Flint Hills in 2003. Noted that during that dry winter there were a lot of burn bans on in the counties of the Flint Hills. Added that there was a little rainfall and people burned over a three-day period and the result was a lot of ozone exceedances in the Kansas City metropolitan area.
- Noted that the Flint Hills eco-system covered about 13 counties in Kansas and most burning occurred in late March, early April to improve cattle weight gain and to control invasive species.
- Explained that meteorology would drive conditions in Kansas. Noted that springtime in Kansas was volatile with many cold fronts, a lot of rain and wind resulting in a limited number of days for burning to occur are usually compressed. Explained that this led to air quality problems.

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- Noted last year 2.7 million acres were burned in the Flint Hills. Noted that in 2003 there were exceedances in the ozone levels in metropolitan areas of Kansas City and Wichita and then 2009, 2010 and 2011.
- Stated that they needed to control Red Cedar around metropolitan areas as they burned very quickly and were hard to control.
- Stated that there had been spikes of particulate matter on the monitoring network in the state as the fires were going on. Stated that no violations on particulate matter occurred because of the nature of the standard (24-hr average).
- Stated that the ozone monitoring season in Kansas ran from April 1st to October 31st. Stated that Kansas City, Wichita and Topeka had continuous monitoring. Confirmed that ozone standards might be lowered by the federal government.
- Showed several slides illustrating the geographical locations and movements of the smoke plumes over several days of burning in the Flint Hills and stretching from Louisiana and gradually moving into the Great Lakes.
- Showed slides and graphs tracking the different ozone levels over 8-hour periods.
- Discussed the Smoke Management Plan. Stated that they had been meeting with the agricultural representatives from Kansas State, federal agencies, local agencies and the landowners since 2003 and discussed with them the effects of the smoke on metropolitan areas and the effects of the smoke plume. Stated that they had been doing some education and outreach and field training.
- Noted that in 2009 after the exceedances they applied for an exceptional events flag to try to get the data flagged so it would not be used against the metropolitan area when determining attainment or non-attainment. Noted they were denied that request by the EPA because they did not have a smoke management plan in place for the Flint Hills.
- Stated that there was a commitment made in 2010 to develop a plan for the Flint Hills. Noted they worked with many groups and the plan was adopted by KDHE in December of 2010.
- Stated that they wanted to work with the ranchers to try to mitigate the effects that the smoke had on downwind areas and come up with ways to accomplish that.

Dr. Carol Blocksome, *Kansas State University*

- Noted that she had distributed a package to members with copies of slides and information to which she would be referring.
- Emphasized that the Smoke Management Plan, education and outreach was a joint agency accomplishment.

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- Decided that they needed one authority source for information, one place where they could refer everyone and ensure everyone receiving the same information.
- Discussed many types of outreach methods and then wanted a way to measure the effectiveness. Noted they first identified their target audiences. Added that the information that the ranchers needed would be different than the information for the county emergency staff would need.
- Noted it was a voluntary plan. Asked the county emergency staff to assist with the promotion and to help encourage producers to burn on suitable days for smoke dispersal.
- Stated that they had to explain the occurrence of burning on certain days to an urban audience as well.
- Wanted to make information easily accessible on their website. Noted that on the website there was a smoke modeling tool that would give advice to ranchers and emergency personnel to see what the forecast was daily. Illustrated by slides. Created to help ranchers plan the best days for burning. Noted the website also had links to weather sites and health information.
- Stated one of their goals was to reduce the air quality exceedances.
- Stated that beginning in January they completed a series of broadcasts over the medium of Agriculture Today and made available to other radio stations. Completed several publications as part of their outreach. Described meetings held to discuss the Smoke Management Plan.
- Completed some evaluations and surveys and the evaluations would detail how many days of non-attainment there were. Noted that they had collected information and produced summaries of acres burned.
- Discussed the surveys that were done by the burn bosses who would make the decision about whether to burn or abort the burn. Noted 50 were returned. Discussed some of the points in the survey and this included questions regarding the effectiveness of the website.
- Added that they also surveyed the county emergency staff and noted that the surveys were mostly responded to electronically. Noted about 30 were returned. Discussed some of the replies in the survey.
- Informally surveyed a group, the tall grass legacy alliance meeting, a group of ranchers that met regularly to discuss issues affecting management. Asked them why they thought there were so many exceedances in 2011. Noted that the ranchers responded the air was not as clean due to the wildfires in Texas, only a few good days so sometimes you had to burn and they were afraid burning would be curtailed in coming years so they were burning additional lands.
- Noted that in 2011-12 that KDHE was requesting exceptional events and they would continue their outreach. Added they had targeted some additional groups and messages, models were under

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revision to improve them, updating the website and CRP came out with new regulations in 2011 that would open a second burning period for CRP land in July.

- Advised that they were looking for additional funding for research as they needed to understand fuels and smoke from grassland fires.
- Discussed the Smoke Management Plan and some points mentioned included:
 - Difficulty of finding days with suitable weather and smoke dispersal,
 - Local wind directions and local/regional needs.
 - Burn to maintain the eco-system but also have to maintain the EPA requirements.
 - Discussed questions raised and different models.
 - Health concerns and constraints.
 - Importance of looking at how they fit into regional issues.
- Summarized all the major points raised, the benefits and challenges of burning the land. Discussed pending legislation and matters that they would be considering in the future.

COMMITTEE DISCUSSION

Ms. Sharp asked if Mr. Watson could explain the monitoring season from April 1st to October 31st more. Mr. Watson responded that they had a required ozone season. He added that some areas of the country had longer ozone seasons and in Kansas the season was April 1st through October 31st. He said the monitors in the state were run year-round and the data was collected. He said the April 1st through October 31st window was the data used by EPA to determine whether the standards were being met. He explained if an exceedance was seen in that timeframe that could be used in the calculation to determine whether a metropolitan area was meeting the standard.

Ms. Sharp asked if the KDHE would be requesting exceptional events for the non-attainment days. She asked if he had any notion about the success of that. Mr. Watson said they do not receive indications from EPA. He noted that in 2009 when they had applied for the flag the letter received did not go into detail and said they would not review it without some form of smoke management plan. That step was then taken.

Ms. Sharp asked Mr. Collinge about survey results. She asked about two questions, one concerning not knowing/not caring about regulations and dismissive views of urban air quality concerns. She asked what were the top three things in his opinion that needed to be communicated to landowners so that they felt like they are working as partners? Mr. Collinge responded that the top three things would be one important one and that would be if everyone could consider the process as a holistic situation.

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Mr. McVaigh congratulated the panel on all their efforts. He noted that on the tour they were asked how they would respond to the situation and he confirmed in a similar way using best available control measures and those would be developed considering the economic implications, the ecological implications and the health implications. He asked if they had reviewed EPA's June guidance on exceptional events and did they believe that it addressed the issues or problems or should it be changed. Mr. Watson responded the Flint Hills were unique. He stated they had discussions with Region 7 about participating in that process to let Washington and headquarters know what was going on in the Flint Hills and why it was unique. He stated they had made some inroads on that but there was room for more understanding. Mr. McVaigh provided some details of the cost and work involved in documenting exceptional events.

Mr. Avant said they had an area in central Texas about 20,000 square miles of heavily infested cedar. He advised that during the late fall/early winter they had what they referred to as cedar fever and it was bad allergy problems. He stated that his opinion was that the only good cedar was a dead cedar so he agreed with their efforts to reduce cedar for health reasons. He also stated that they had done studies in that area to understand the impact of the cedar on the ecology and he noted that when the cedars were removed you started seeing increased stream flow, better ground cover and better ecology of the returning of grass.

Ms. Cory stated that she was with the California Farm Bureau on environmental issues. She stated that she had worked on their smoke management plan which they had in northern California. She stated that in southern California they could no longer burn due to legislation. She asked if there was a way to look at the issue with more flexibility with regard to timing of burning. Dr. Owensby stated that was an issue that had been brought up many times. He said that the data they utilized to give that estimate that you could burn at any time would be from un-grazed prairie. He said an un-grazed prairie was a completely different eco-system from one that was grazed and he elaborated on this point. He also responded regarding the frequency of burning and provided an explanation. He stated that the only time that you would get an increase in gain from burning would be during the year that you burn. He added so if you burned one year you would get 30 to 35 pounds increased gain per steer and if you did not burn the next year you would get no increase in gain. He also discussed the timing of the burning and how it affected different species of plants.

Dr. Rice congratulated the panel on an excellent job. He said that Kansas had been very pro-active in getting the management plan and trying to satisfy the region's concerns. He wondered about the longer term and while people appreciated the Flint Hills he thought there might be a disconnect with some people. He asked if being proactive was good enough. Mr. Watson responded that people in the area were aware of what they had in the Flint Hills and why it was important. He noted the problem was getting folks in Washington, the headquarters of the EPA to come to Kansas or even getting the EPA Region 7 staff to go to headquarters and the Flint Hills and explain why the process was important to them. Dr. Rice said it was not just the EPA but the ordinary person in various cities.

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Mr. Pete Lahm thanked the panel for the enlightening discussion. He noted previous comments about some high wind days being problematic for conducting a burn and then focusing on back burns at that time or night time ignition. He asked if there were any implications or potential utilization as there might be some risk. He asked if there were benefits or drawbacks to vegetation or animals. He asked what role both of them played as an alternative. Dr. Owensby responded it was not possible on the high wind event days with the fuels that they had even using a back burn system. He stated that they were committed to ensuring that the fire remained under their control, not crossing to other lands. He said with cedar the fire could jump by 100 to 200 yards across any fire break. He also noted that the KDHE did not like night fires because there would not be good smoke dispersal. He said the Kansas ranchers do an excellent job with the burning and problems only arise with some hobby farmers.

Dr. Seiber asked about alternatives to burning, and what the status of knowledge and research would be in terms of chemical control of unwanted vegetation like the Red cedar and the potential for biological control. Dr. Owensby said they had chemicals that would control the woody species and some there were resistant. He thought that would add another layer of pollution to the situation and it was not something they would recommend. He stated they used herbicidal control for populations of woody species that exceeded the ability of fire to reduce them dramatically. He said that not all woody species could be controlled and so you could not use a whole suite of management schemes to emulate what fire could accomplish. He also said the removal of litter from the surface would be very expensive. So he thought there were no alternatives that were economically or ecologically efficient.

Dr. Seiber asked about the possibilities of biological control. Dr. Owensby said that the introduction of biological control agents had been introduced to control noxious weeds under the law. He stated they had not worked with biological control methods for woody species or Kentucky bluegrass in the area. He said biological control agents caused some issues as they are cyclic and you get boons and busts in the populations.

Mr. Herz noted that the EPA backed away from lowering the ozone standard and he asked if they had done any economical or ecological impact analyses considering what the implications of lowering that standard would be. Mr. Watson confirmed that as an agency they had not done a formal study about how much it would cost. He noted that they had looked at costs in cities but they had not done an economic impact study.

Dr. Knighton asked about the value of the biomass forage was that burned every year. He asked if there was an opportunity to graze some of that material or mechanically remove some for alternative uses. He asked if that could be done in combination with fire so they could be optimized. Dr. Owensby stated that it had energy value to the animal and combined with a protein supplement during the winter period they use that. And he noted that they did have a substantial over-wintering population of animals. He said the animals had to be wintered and they utilized that material with a protein source to enhance the digestibility of the material. He stated they had to be careful with the removal of that material so the land did not suffer erosion.

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Dr. Knighton noted that one of the additional goals might be to reduce the smoke emissions. Dr. Owensby agreed that they would like to do that. He explained that in order to change anything you would have to know how it worked and he said there had been no research work on the emissions from grassland fires. He acknowledged that they needed to do that.

Dr. Williams asked about the education that Dr. Blocksome did with the producers and ranchers. She asked if she had also done public service announcements for people in Kansas City and Wichita that were run during the burn season. Dr. Blocksome advised that prior to the burn season there was an announcement that would be put out. She said they would like to give smoke potentialities as part of the morning weather much like pollen counts. Mr. Watson added that the KDHE in the early spring released an annual release explaining about the burn season in the foothills and to be aware of it if you had health conditions. Dr. Blocksome stated that they had come to realize that their audience should be national not just regional.

Dr. Susan O'Neill thanked the panelists for their presentations and the excellent discussion.

BREAK

The Agricultural Air Quality Task Force recessed for a fifteen minute break.

AGENCY UPDATES

Mr. Pete Lahm, *US Forest Service*

- Thanked the committee for the opportunity of updating them with the activities of the US Forest Service.
- Noted that he intended to discuss the issue of prescribed fire but decided to approach it in the opposite direction and ask what if there was no prescribed fire.
- Noted that during the last meeting of the Task Force he had to leave as a result of the fires in the Southwest. Decided that he would share of the things that they did.
- Stated that one of the compelling factors that he had noticed with regard to wildfires was the health effects. Stated that some numbers had been recently published. Noted that there was a significant fiscal impact and some of these costs came from hospitalizations and mounting up to millions of dollars, for example the 2008 fires in California.
- Discussed the effect on the ozone levels.
- Related the results of a survey that pointed out that one in three households had someone with a respiratory illness such as asthma or COPD. Considered that a high number of people being affected by higher emissions.

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- Noted that historically the US Forest Service had maintained some modeling tools for looking at smoke impacts on a national scale and some had been picked up by the weather service and NOAA (National Oceanic and Atmospheric Administration). Stated that it was the Blue Sky Framework that came out of the Pacific Northwest Experiment Station.
- Stated that they had been looking at this and in increasing their ability to improve how they would consider air quality in their wildfire decision support system. Stated that this was the structure that the Department of the Interior and the USDA Forest Service was using within state forestry agencies to document their decision process and try to build a routine process for making wildfire decisions.
- Reviewed some of their forecasting capabilities starting in 2007 and 2008. Wanted to help the public understand what the impacts were. Noted that more information was distributed to the public during 2008.
- Reviewed some of wildfires in the Southwest during the summer of 2011 and showed slides with the smoke plume. Reviewed some of the evacuations and the quality of air tracked hourly in Arizona.
- Discussed how they created daily smoke modeling analysis reports and brought those reports to the table and provide them to inter-agency groups.
- Stated that the Southwest was not highly populated and the concentration of monitors was light which made it more difficult to determine data accuracy. Stated that they had tribal monitors, New Mexico State monitors, Albuquerque City monitors and others. Noted that they pulled up a website that brought all that information together in one place.
- Stated that they developed a Projected Wildfire Air Quality Impact Smoke Guidance and noted it was the result of working with a group of people on a daily phone call to try to come up with a viable, consistent message so when the weather service put its information out it would correspond with information the public was receiving from other sources.
- Discussed the fires in western New Mexico and the effects on the emergency phone systems, transportation, coordinated messages, evacuations, health effects that would affect whole communities following wildfires.

COMMITTEE DISCUSSION

Mr. Kevin Rogers made some comments regarding the fires in Arizona. He stated it was on public land, on BLM land but not private. He thought it could have been handled better. He noted that the allotments were grazed forest and there had been no timber harvesting activity, no prescribed burns for some years. He thought that if the public had allowed cows and chainsaws to do their jobs the devastation would have been less. He said the habitats of some species were now gone and he felt that had the forest been managed better for the forest as opposed to environmental groups who often had a

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narrower focus, then they would not have had the devastation and health effects the fire caused. He considered the lesson learned was that the forest has to be managed correctly.

Mr. Avant said that he would like to agree with Mr. Rogers. He noted that at previous meetings he has also said that there is collateral damage when environmental extremists come in and say you cannot manage the forest. He felt there are human consequences to that type of action. He gave an example of a town in Texas with 1700 homes lost because an environmental group was worried about a species called the Houston Toad. He noted that its environment was now destroyed.

Dr. Charlie Walthall, *Agricultural Research Service*

- Thanked the committee for the opportunity of giving them an update of what was taking place in the ARS.
- Discussed their current activities:
 - He brought to the members' attention the special issue of Agricultural Research which provided a snapshot of their current research. Noted that in the issue he acknowledged the influence and communication with the AAQTF.
 - Many people involved in air quality took part in the American Chemical Society meetings in Denver. There were two all-day sessions on agricultural air quality. The papers distributed at the meetings are available online at the AGRO website. AGRO is the agriculturally-focused section of the American Chemical Society. The Journal of Atmospheric Environment will be doing a special issue based on the 23 papers.
 - The Cotton Gin PM Sampling Project moves around and they are completing their measurement phase. The final field campaign is scheduled in a couple of weeks.
 - The Herbicide volatilization 8-year project has gained a lot of attention. The project looks at the amount of herbicide volatilization off a field and doing the measurements repeatedly over a 24-hour period for three weeks following application. Their goal is to put together a 12-year data set. They found that soil moisture plays a major role in the loss of the materials from the surface. One of the findings was the amount of loss to the atmosphere appears to exceed the losses on runoff after a rainfall event which was significant.
 - Scientists are looking at soil volatilization with herbicides, pesticides, GHG and ammonia.
- He discussed GRACenet (Greenhouse Gas Reduction through Agricultural Carbon):
 - They focus on cropping systems and rain plant systems. There are 34 locations involved and it has been around for six years. The group gathers once a year to discuss scientific issues, publications and outreach. They are teaming with the Renewable Energy Assessment Project (REAP) and that group looks at how much biomass can you take off a landscape and still

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- maintain adequate productivity and soil health. They will be discussing their data management systems.
- Five locations for their data demo and 20 more locations where their data is ready for input.
 - He noted the activities of Global Research Alliance (GRA) and the Crop Working Group.
 - Discussed the Engineering & Wind Erosion Research Unit:
 - The Wind Erosion Prediction System (WEPS) was discussed. It is done in concert with the NRCS. They have a close relationship and have meetings throughout the year. The scientists want to develop a decision support system.
 - NRCS is fielding a version of the model in 2200 field offices to assist landowners with conservation planning. There is a cooperative agreement with KSU (Kansas State University).
 - It has many uses such as agriculture, urban/construction, military, international use and applications.
 - He discussed the linking of some of the WEPS applications with weather prediction models for forecasting.
 - Discussed Animal GRACEnet:
 - The group formed in February with the same type of GRACEnet protocols and consistent methods. The group is still getting organized.
 - They want to put out a methods catalog and review standardization so data is comparable.
 - Their unique contribution is that they are focused on fact sheets with two series, one that will explain proven technologies and two, promising research.
 - This fall some of their communications will be concerning the DairyGEM model webinar and the data management system.
 - Discussed his leadership and involvement with the National Climate Assessment for Agriculture:
 - Stated it was mandated every five years by Congress and it basically asks what is the impact of climate change on the United States? There are sectoral reports and the USDA leads the agricultural sector.
 - There is a 51-member federal advisory committee. They are producing a technical reference document to enable them to write the actual impact and status of adaptation to climate change by agriculture. Provided the names of some of the author teams. They are doing a literature review on impacts and adaptation and risk assessment using threshold tables.

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- Asked the committee members what they would like to include in the report. Touched on some of the information they need:
 - Examples you are aware of, of impacts of climate on agriculture. They would like to have examples of where they think climate is changing productivity and how production proceeds.
 - Any examples of adaptation, things that they think have been done, are being done or plan to be done to adapt the changes in climate that are going on. It could be anecdotal.

COMMITTEE DISCUSSION

Dr. Seiber noted that the ARS is a public agency that responds to people or groups that come in to them with researchable issues. He asked if he could say a few words about how some of their projects get started so people know how to get entry. Dr. Walthall stated that their research runs in five-year cycles and at the beginning of the cycle they hold workshops where they invite stakeholders (who could include producers, agencies, NGOs and university colleagues), customers, researchers, administrators and scientists to get together and determine by listening if there are promising things out there to work on. They then determine the priorities, write an action plan where stakeholders have input. The individual scientists then write their own projects in support of the action plan. The projects are then peer-reviewed at the Office of Scientific Quality Review. He stated that once the projects are certified the researchers go out and conduct their research. He noted that everything they do is judged on impact.

Dr. Ray Knighton – *National Institute of Food and Agriculture*

- Brought to their attention the publication called EM Magazine designed to go out to the regulatory community and professionals working in air quality management. Advised they were doing a special issue on agricultural air quality and they had asked him to provide something with a USDA perspective. Advised that he contacted Mr. Greg Johnson and Dr. Walthall and they collaborated. Stated for those members new to the AAQTF it was a good review document of how the USDA has worked in the past and will work in the future on air quality issues. Stated that it gave some good background on how the AAQTF had been instrumental in shaping some of the air quality research.
- Discussed the National Institute of Food and Agriculture (NIFA):
 - They lost their administrator and they are still looking for a replacement. This has affected their work product flow and this has shown in the delay in getting their RFAs (Request for Applications) out.
 - They were able to get the Agriculture and Food Research Initiative out on climate change and what they are now calling it is, Agriculture and Natural Resources Science for Climate Variability and Change. The focus would be on adaptation and mitigation of climate variability and change in agriculture and forestry system.

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- There is a change in the program this year so all the projects would now be required to be integrated so they are requiring that all projects have at least two of the three functions of the knowledge system and that is research, education and extension.
- This puts a limitation on eligibility because they are integrated projects and basically only colleges and universities are eligible to apply for the grants.
- They will have coordinated agricultural projects; the large grants. The grants have been scaled back due to budget issues. He noted that there were no 2011 RFAs and the funds were put toward the 2012 RFAs. That decision contributed to the delay of the process for RFAs.
- They have their standard grant programs and the title of that program is Integrated Approaches to Climate Adaptation, Mitigation in Agro-Ecosystems. The maximum amount of funding available for those projects is \$750,000 for up to four years of funding. He provided comparative figures for previous years. They expect to make 11 awards this coming year.
- They will be running Regional Approaches for Adaptation and Mitigation for Climate Variability and Change and that has a maximum of \$10 million over five years, so up to \$2 million per year and they expect to make two awards in 2012.
- They have focused RFAs on specific commodities in the past. For 2012 (and because there were none for 2011), they have opened the RFA to cover all commodities that were inadequately represented in the 2010 funding stream. These are eligible, legumes, farmed aqua-culture, forest systems, forage and range systems and animal production systems.
- Regarding the timelines the just-released AFRI (Agriculture & Food Research Initiative) have a letter of intent with a due date in mid to late October. The climate change programs have a date (for smaller grants) of October 20th for the letter of intent and for the full application a due date of December 16th. For the larger \$10 million projects the letter of intent is due October 28th and the full application January 13th.
- Another AFRI program of interest is the Sustainable Bioenergy Program. The program has \$11 million available in funding in 2012. He described some of the details of this program and other programs related to bio-fuels.

COMMITTEE DISCUSSION

Mr. Avant asked how the budget scenario would play out considering the committee of twelve, and issues regarding the Farm Bill. Dr. Knighton responded that he had no idea how the committee would interface with the departments. Various members contributed to this conversation from other committees regarding the budget issue, all stated they have indications for reduction, have developed scenarios, but weren't aware exactly how it would play out in terms of the amount of reduction.

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Mr. Avant asked whether the 2012 program was fully funded. Dr. Knighton responded that they were getting a strong message from their senior administration that they were going to be more supportive of competitive programs than formula funds. He noted the question was whether the experiment stations could garner enough support to maintain their funding. He said that they had to maintain a delicate balance and if they had a 15 to 20 percent cut then they would have to make it up from programs. He said there would be some political tension as to where money went.

Dr. Rice expressed a concern about research funding, education extension funding for university systems. He noted that he believed they were at a critical crossroads that would lose human capacity in their agricultural research extension education system. He noted that he could put a slide up showing that NSF (National Science Foundation) and NIH (National Institutes of Health) had also had cutbacks but have doubled. He noted that if one looked at the USDA funding for research it had gone up a little bit but then it crashed. He stated that faculty needed to get grants, publications and recruit graduate students. So he explained that they looked at NSF and NIH funding and would ask where to do the students go? For these reasons they are losing capacity and a direct connection with agriculture and he felt these were the reasons the public complained about universities not relating. He expressed deep concern about the capacity of the system. Finally he said the professional societies were concerned about the future. Dr. Knighton said that under the NIR program they had received a total dollar amount of \$290 million per year and he discussed this in more detail.

Dr. Seiber agreed with all the comments. He said they had heard all the good things the federal departments and agencies were doing and the needs out there that continued to grow and then the funding challenges. He stated that he had heard that committees were developing strategies on how to deal with funding issues but he thought that they needed to find a way to get the message heard where it would count.

LUNCH

The Agricultural Air Quality Task Force recessed for lunch for one hour.

EQIP AIR QUALITY UPDATE

Mr. Jeffrey White, Team Leader/Stewardship Programs, Financial Assistance Programs Division, NRCS

- Advised the Task Force he was standing in for Mike Hubbs and was new to the team. Advised that he came to headquarters in April and he had been with the agency in Florida, New Hampshire and originally Illinois.
- Noted he would be talking about EQIP, air quality in CSP.
- Detailed information on EQIP first:

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- In FY11 they allocated \$33.8 million to the air quality initiative states of Arizona, California, Colorado, Montana, New Jersey, New York, Pennsylvania, Texas and Utah.
- The funding was targeted to support farm practices at a grass or the primary natural resource concerns of particulate matter of PM2.5 and PM10 as well as the eight-hour ozone pollutants EPA designated non-attainment areas.
- In FY11 NRCS provided assistance through the AQI (Air Quality Initiative) to address other resource concerns such as GHG and energy conservation.
- He pointed out that in all the program areas they were a few percentage points from being 100 percent obligated but they were still working with a few states to conclude obligations before the end of September.
- As at September 6th they had obligated 889 contracts on 173,000 plus acres for \$37.5 million.
- NRCS had received 1900 AQI applications in those states and they funded about 46 percent.
- The NRCS also allowed some states to use some of the regular EQIP money to supplement the AQI funds.
- Detailed the top ten practices that went into the contracts in FY11.
- Confirmed that this information was provided by Mark Parson, the national EQIP/AQI program manager and detailed his contact information.
- Answered a question about EQIP given the budget situation, stating that they were working under the premise that budget cuts were coming, but not the nature of them. That said, he felt EQIP enjoyed more support and would be in a healthy position going through 2012.
- Stated that he was going to give the members a quick overview of the conservation stewardship program.
 - He noted that it was a program that came about as a result of the 2008 Farm Bill. The acronym of CSP came from the 2002 Farm Bill and represented conservation security program. In the security program they primarily rewarded the good stewards of the land. In stewardship in the 2008 Farm Bill there was a heavy emphasis on additionality; to get into the program you would need to be doing a lot of good work on your ground but with room for improvement.
 - He provided an analysis of the 2010 data. Right now they were going through the data and they had not finished the obligations and they did not yet have that data. He reviewed the details on the slide concerning conditions for qualification. At the time of application 86 percent of the applicants were meeting an air quality resource concern.

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- He noted there were four different threshold numbers depending on land use and they are crop land, pasture land, grange land or NET which is the non-industrial private force land. This was discussed in detail relevant to applications to the program.
- He discussed different types of enhancements in contracts.

COMMITTEE DISCUSSION

A member asked what the budget situation looked like for EQIP down the road. Mr. White confirmed that there were no official details but across the board he thought they were looking at reductions of some sort with conservation programs in FY12 again. He thought EQIP might fare better than some other programs as there was considerable support for EQIP.

Dr. Knighton asked about the six million acres and pesticide drift. He asked if he could come up with a number that they reduced so many pounds of active ingredient. Mr. White said that was one of the things they were looking to do with their report feature and he said that he did not have that information with him. He added that he did not know how much quantifiable information of that nature that they would be able to provide.

Ms. Cory asked if they were going to be doing figures representing pesticide reduction, diesel emission reductions so that they could basically tell a story and therefore make it easier for people to understand. Mr. White confirmed that that was a priority for them right now. Ms. Cory asked if they could have the information that he had presented. Mr. White confirmed the slides would be available.

Mr. William Angstadt asked about FY12. He said the states had been asked in July/August to provide resource priorities for 2012 to be used towards the EQIP budgets. He said that air quality impacts such as emissions of particulate matter and PM precursor and air quality impacts of emissions of ozone precursors that the state of Maryland took as priorities. He asked if he could provide information of what states had ranked highly air quality impacts for their 2012 resource and budgets to give them some idea of what the state conservationists were hoping to get funding for, for practices for FY12. Mr. White advised that he did not have that information with him and stated he would pass the question on to Mark Parson. He noted that they would get back to Mr. Graves with a response.

TASK FORCE COMMITTEE DISCUSSIONS

Mr. Graves indicated that they would now get started with the discussions from all members to the subcommittees concerning the recommendations that they hoped to bring forward.

AAQTF – EMISSIONS QUANTIFICATION SUBCOMMITTEE

Mr. Graves noted that Mr. Martin was the only subcommittee member present and would address everyone:

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- Advised that they had given the Task Force a letter the day before written by Ms. Sally Shaver and the committee had signed off on that letter supporting a list of nominees.
- Noted that the list of nominees had expanded with the addition of two names, one was Dr. D'Ann Williams who had expertise in exposure assessment and the other was Dr. Wayne Robarge who was an expert on emissions methodologies.
- Noted that the EPA had extended the deadline period for an additional week so they could vet the names and ensure that their applications are in.
- Asked the Task Force to authorize the submission of the letter to the Scientific Advisory Panel with their recommendations from the Task Force.

Mr. Martin made the motion and it was seconded by Mr. McVaigh.

Mr. Graves said the motion had been made and seconded. Mr. Graves took a vote and the motion passed.

AAQTF – AQ STANDARDS SUBCOMMITTEE

Dr. Faulkner discussed some of the following points:

- Advised that they had presented the three recommendations that the AQ Standards wanted to propose.
- Referred to the recommendations on their printed materials and the specific language and they submitted those to the Task Force and asked for comment and to pass them.

Mr. Graves asked if there were any additional members on the committee that would like to comment.

COMMITTEE DISCUSSION

Mr. Avant asked about the two different standards and how they were calculated and he wanted to get some clarification. Dr. Faulkner said the analysis the EPA used to come up with the value of 87 micrograms per cubic meter being put at a 98 percentile standard was outlined in the paper. He said basically there was a large scatter of data and the EPA did a linear regression through the data comparing the current form which was essentially a 99 percentile value and determined what value would be equivalent for a 98 percentile which they came up with and it was 87 micrograms per cubic meter. He said that there were some issues with the analysis and they had gone into some detail in the white paper. He said that there was a large amount of scatter in that data so if one looked at the range of values which went from 50 micrograms per cubic meter to 130, so a wide range. He added there were also regional differences not addressed in the analysis. He added looking at the aggregate data from across the U.S. Their approach masked a lot of issues that they had in the West, Southwest and Midwest as far as what an equivalent value would be.

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Dr. Knighton asked for further clarification about the comparison between the two standards. He asked about the monitoring process and how they captured and showed spikes rather than the average ambient concentration. He asked if that was something that happened to show up on one of his graphs or would that be widespread phenomena? Dr. Faulkner thought that those were two different issues. He said when Dr. Richards puts his monitors out to do property line measurement the point would be to measure the highest concentration at that property line. The graph that he showed with the spikes would be data from one of the Phoenix monitors and that would be part of the monitors that was in the NAAQS network, a regulatory monitor. He added that what he was doing on a property line would be different than where this standard would apply. The spiking graph was from a regulatory monitor, he believed it to be from Arizona. Dr. Knighton asked whether there would be more spikes given newer lower standards, and would this mean more exceedences? Dr. Faulkner said it would change ambient community scale monitors, and while the news standards might be equivalent to the old for these, it fails to address the implications on new source review.

Dr. Norman commented about the other goal that the agency was attempting to address in how they would select the level, so there is 85, 80, 75 was looking at the map and determining what would the level be that would give us the same number of non-attainment areas. He noted it may not be the same non-attainment area but the same number. He added that some areas that are non-attainment that go into attainment and those that were in attainment might become non-attainment all due to a statistical exercise. He said then to add what Mr. Faulkner was saying in the regulatory world, those that are regulated now would be looking at a number at 85, not to exceed resident 150 which he thought an entirely different aspect.

Mr. Rogers commented that he was going to say something similar to Dr. Norman. He said when they met with the EPA in Washington they had that same discussion. He said that every time he said to them that they were proposing to cut it in half they would correct him and say no, we're not going to cut it in half because we are changing the methodology. He said when you would look at how the regulators regulated his farm and the monitor in that area that would be the number even though that may not have been their intent. He said their paperwork in research taken from monitors across the state and it would reflect 13 out of 15 counties in Arizona would become non-attainment if the standard was dropped.

A member commented and noted he was USDA employed and so it was not appropriate for him to persuade members of the Task Force but to clarify the process he asked about the second recommendation. It stated that the Secretary of Agriculture should request that the EPA consider the consequences of changes. He asked if the Task Force was asking them to address the impact. He thought that would take it to another level than asking them to consider consequences. He was asking if they thought they were going to get the action that they were seeking by requesting considered consequences. Dr. Faulkner responded that he was not married to the language but given that the Clean Air Act did not allow for consideration of financial impact of a standard they did not want to request something that they would just turn around and say that legally they would not be allowed to

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do that. He summarized he was not opposed to making the change but he thought that that was worth considering.

Dr. Honeycutt entertained a motion to accept the recommendations. He noted it was moved by Mr. Faulkner and seconded by Mr. Avant. He asked if there was further discussion.

Mr. Knighton asked about the last paragraph of point number two. He said they recommended support for research but it was not mentioned where. Mr. Faulkner said there should be a number three before the last paragraph. He said that CASAC had recommended that some of the research referenced be done as part of the (05:54:05:12) NCore network. Dr. Williams mentioned she had asked to include something about NCore but this wasn't in this draft.

Mr. Faulkner noted that, to avoid confusion, they should work off of the recommendations that were in the back of the paper, and they would change the executive summary recommendations to remain consistent.

Mr. Avant clarified that they are taking action on the recommendations contained in the white paper presented to them by the committee, and not those in the executive summary.

Dr. Honeycutt stated that the motion has been amended as he described. He asked for a second. It was seconded. He asked if there was further discussion. A vote was taken and the motion was carried.

AAQTF – EMERGING ISSUES

Dr. Honeycutt recognized Ms. Cynthia Cory who would be representing the committee.

Ms. Cory noted:

- Confirmed that they had only received some of their information recently and as a result did not have a recommendation at the present time.
- Recommended that funding in the current budget for agricultural research programs be maintained and further cuts be avoided.
- Noted that continued investment in science for food in agriculture was essential for maintaining the nation's food, economic and national security.

COMMITTEE DISCUSSION

Ms. Sharp asked if it was appropriate to make a distinction with research and formula funding that went to cooperative extensions. Ms. Cory said yes. They were trying to keep it simple but she said they were open to any words or suggestions. Different members were suggesting variations on wording.

Mr. Avant noted on the last line it would read "nation's food, economic, environmental and national security". He said I added the word "environment" as we are an environmental task force.

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Dr. Rice asked if it was appropriate to put the last sentence first and then say we recommend that funding in the current budget should be increased, but at least minimally maintained.

Dr. Seiber asked who they were recommending it to and did they have a mechanism for getting the recommendation to a place where it would be viewed seriously.

Mr. Herz asked if it could state, something along the lines "as agricultural research needs are expanding, continued investment or long-term investment" or change "continued" to "long-term".

Dr. Honeycutt asked if they were in a position to make a motion now or further discussion. Mr. Graves took a vote and the motion passed.

AAQTF – GHG AND BIO-FUELS

Dr. Honeycutt noted that Mr. Avant would be advising on this committee.

- Mr. Avant stated at the moment that they did not have any recommendations to bring forward.
- Dr. Rice noted several issues coming up:
 - The National Assessment Report.
 - The EPA biogenic ruling or advisory group and that process would be started in approximately a week.

Dr. Honeycutt with the agreement of the Task Force made a decision to dispense with the break and just continue to discuss matters to the completion of the meeting. He noted the following to be discussed:

- Wanted to discuss agenda items for the upcoming meeting.
- Indicated that he wanted to talk about the location of the next meeting.

Dr. Rice asked that the issue of smoke burning be covered under a future agenda. It was decided that that would fall under the AQ Standards Committee and they would address that.

Mr. Avant suggested Arizona as the potential site for the next meeting and for it to take part in late February. He also suggested New York State for a spring meeting and then wrap up in Portland which could take place in August or September. He summarized Phoenix in February, New York in May or June and then Portland in August or September.

Dr. Honeycutt asked the Task Force if they wanted to discuss that or vote on it as a matter of protocol.

Mr. McVaigh also suggested California, to be held at the University of California at Davis in February. He thought that February was not generally a good time for farm tours but there was some farming activity going on in northern California in February and there would also be a lot of research going on in the Davis area.

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Ms. Cory agreed there was a lot to see in California.

Dr. Seiber agreed that the University of California would be good to visit.

Mr. Rogers thought it was seven to eight years since they had been to Arizona. He suggested that they present options to the Chief and see how he felt.

Mr. Graves said they should bring it to the Chief and then they should try to find a federal facility or federally-related to reduce costs. He advised that they would discuss with the Chief the opportunities provided by having the next meeting in Phoenix, Arizona and also the opportunities provided by having it in Davis, California.

Mr. Graves noted that with regard to agenda, there would be certain things like committee work so some of those types of items would be on the agenda. He asked if there were any other issues. He noted Dr. Rice's request regarding smoke-related issues. He asked if there were any others that should be on the next agenda.

Ms. Sharp noted that they should continue to invite Ms. Janet McCabe to maintain the relationship with the EPA.

Mr. Angstadt noted that in the Chief's opening remarks in the last meeting he set four items as new goals and the second was atmospheric deposition in the Chesapeake Bay. He thought the Chief made a commitment to put together a working group between NRCS and agricultural stakeholders to look at the air shed model. He noted that he wasn't sure if that had happened so he would like some progress report from NRCS on working with the EPA on the Chesapeake Bay atmospheric deposition model.

Dr. Seiber requested an agenda item concerning models, the general use or appropriate use of developing models with perhaps some examples.

Mr. Rogers asked if there could be an update regarding the Farm Bill.

Mr. Avant asked if there could be a discussion related to putting together a working group on rural monitoring drawing members from the Task Force and the EPA. Mr. Graves asked if there was an individual who would be willing to make contacts and lead such a group. Dr. D'Ann Williams volunteered. Dr. Williams and Ms. Lisa Greene would work together to form such a group.

Ms. Cory asked if the EPA could give on her update a discussion about the resolution on the Rice Rule.

Mr. Martin said that at the time of the next meeting the NAEMS (National Air Emissions Monitoring Study), should be operational and it would be good to receive an update report.

Dr. Knighton asked if they could include a request on the status of the monitoring on the National Atmospheric Deposition Program especially the National Trans Network.

Dr. Honeycutt thanked everyone at Kansas State University, Dr. Rice and everyone for making their time there productive. He also thanked the NRCS Kansas office for their help on the tour and their support.

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He also thanked the many individuals who had contributed so much to make the meeting possible and successful.

Dr. Honeycutt asked for a motion to conclude the meeting of the Task Force. Dr. Seiber moved and seconded by Dr. Faulkner. Dr. Honeycutt took a vote and the motion carried.

ADJOURNMENT

The Agricultural Air Quality Task Force adjourned for the day at 2:40 p.m.