

**USDA Agricultural Air Quality Task Force
Summary Minutes
November 28 - 30, 2006
Holiday Inn on the Hill
Washington, D.C.**

AAQTF Members in Attendance:

- Kevin Abernathy
- William Achor
- Viney Aneja
- Robert Avant
- Gary Baise
- Martin Bauer
- Merlyn Carlson (Acting Chair)
- Cynthia Cory
- Manual Cunha
- Jerry Hatfield
- Kristen Hughes
- Roger Isom
- Trisha Johnson
- Steven Kirkhorn
- Sagar Krupa
- Arlen Lancaster (Chair)
- Brian Lindley
- Paul Martin
- Chris Petersen
- Robert Pike
- Wendy Powers
- Charles Rice
- Kevin Rogers
- Annette Sharp
- Sally Shaver
- Bryan Shaw
- Douglas Shelmidine
- Susanna Von Essen
- Phillip Wakelyn
- Benjamin Weinheimer

USDA Staff in Attendance:

- Joan Arbertella (NRCS)
- Myra Brown (NRCS)
- Peter Chen (NRCS)
- Diane Gelburd, DFO (NRCS)
- Elvis Graves (NRCS)
- Ron Heavner (NRCS)
- Carole Jett (NRCS)
- Greg Johnson (NRCS)
- Ray Knighton (CSREES)
- Sheryl Kunickis (NRCS)
- Michele Laur, Alternate DFO (NRCS)
- Ron Marlow (NRCS)
- Susan O'Neill (NRCS)
- Al Riebau (USFS)
- Marc Ribaud (ERS)
- Jeff Schmidt (NRCS)
- Roel Vining (NRCS)
- Charles Walthall (ARS)
- Greg Zwicke (NRCS)

EPA Staff in Attendance:

- Paul Argyopoulos
- Teresa Clemons
- Robin Dunkins
- Beth Sauerhaft
- Jon Scholl
- Susan Stone
- Bill Wehrum

Call to Order: Dr. Diane Gelburd, NRCS, AAQTF Designated Federal Official, opened the meeting at 1:00 pm EST on Tuesday, November 28, 2006. Dr. Gelburd laid out the agenda for the afternoon meeting, and noted the presence of NRCS Chief Arlen Lancaster, Deputy Under Secretary Merlyn Carlson, and EPA Counselor to the Administrator for Agriculture Jon Scholl.

Welcome/Opening Remarks: Chief Lancaster presented opening remarks. He mentioned the complexity of the agricultural air quality issue, and encouraged the new members to seek background and advice from members with some longevity. He introduced Mike Johanns, Secretary of the USDA.

Mike Johanns (USDA, Secretary)

Secretary Johanns began his speech on the “Importance of the AAQTF – USDA Interaction” by welcoming the 16 new members of the AAQTF as well as the 13 returning members. He mentioned the stiff competition for positions on the AAQTF, and the importance of the Task Force. He discussed the USDA listening sessions last year for the 2007 Farm Bill, many in which he personally participated. He thanked the AAQTF for their efforts that have resulted in increased funding for agricultural air quality issues, and resulted in the Ag Air Quality Workshop held in Potomac, MD in June, 2006. The USDA has expended more than \$20 million over the past 3 years under the CSREES National Research Initiative, targeting projects in agricultural air quality. He stated that air quality is about at the stage where water quality was 20 years ago with regard to agriculture. Farmers and ranchers are the first stewards of much of the nation’s landscape. There is a continuing need for frank discussion on this topic. USDA has been working closely with EPA on NAAQS revisions, including recent determinations on particulate matter, with a focus on urban rather than rural, agricultural sources. EPA will continue to work with USDA to develop and approve new practices and conservation measures. Given all these cross-agency activities, a clearer picture of the impact of regulation on farm activities is now emerging. He mentioned the EQIP Conservation Innovation Grants (CIG) program with 8 current projects involving agricultural air quality, with an investment of over \$3.7 million. He reemphasized the AAQTF work which has resulted in 9 additional research positions in this arena, the establishment of the NRCS Air Quality and Atmospheric Change Technology Development Team in Portland, and other important changes.

Photos with the Secretary

Questions/Comments with the Secretary

The following is a summary of key points made by Task Force members to the Secretary –

- Air Quality is now surpassing Water Quality in national importance. Air quality should be given a higher visibility in the USDA, including the NRCS air quality web pages. In addition, NRCS budget levels should be at \$300 million/year over 7 years under EQIP to evaluate agricultural air quality technologies and information. These points should be emphasized in the new Farm Bill.
 - Secretary’s response: He will ask Chief Lancaster to put that proposal in the form of a letter to his office for further consideration.
- What is the USDA’s position on greenhouse gases with respect to agriculture?
 - Secretary’s response: He noted we are in the midst of a major transformation on the farm with regard to air quality, atmospheric change, and energy issues. He also noted the mature nature of agriculture in the U.S. compared to so many other parts of the world. He noted our excellent agricultural research base in the U.S. and the important and increasing role we will take in international issues like greenhouse gas management.
- The critical nature of the AAQTF and the importance of staff support in USDA for the long term was noted.
- The importance of EQIP funds for integrators and other grouped constituents was noted.
- The importance of including budget funds dedicated to EQIP and follow up research on farm activities to reduce air emissions under NRCS programs in the next Farm Bill was suggested.

At the conclusion of the question and answer session, Secretary Johanns directed Chief Lancaster to develop a one page document capturing Task Force member suggestions for improvement of the Farm Bill. In closing, the Secretary thanked the members for their dedication and work on the Task Force.

Arlen Lancaster (USDA Natural Resources Conservation Service, Chief)

Chief Lancaster began his discussion of the topic entitled “AAQTF 2006 – 2008: Setting the Direction” by introducing USDA NRCS staff. He noted recent AAQTF work, as well as work conducted in the USDA on topics such as the new PM NAAQS and the Exceptional Events Rule. He talked about future efforts in regulatory and non-regulatory areas like the next revision of the ozone NAAQS and the National Air Emissions Study with EPA.

Following the opening remarks by Chief Lancaster and the introductions of AAQTF members as well as the USDA and other Federal staff, the Chief opened the meeting up with a general discussion of the air quality issues and concerns facing agriculture.

The current issue of state implementation of air quality regulations going beyond EPA regulations was discussed. The impact of these current and proposed rules on agriculture could result in fundamental and monumental changes, and even cessation, of agricultural production in some parts of the U.S. Rules are now impacting even growers with as little as 10 to 20 acres, or a grower with just one irrigation pump engine.

The Right-to-Farm statutes and historic precedents to deal with agricultural air quality issues were mentioned as well as the parallels with water quality problems and solutions. There was also a discussion of the importance of agriculture nationally and globally. The agricultural revolution in the area of bioenergy and its close relationship to air quality and atmospheric change (GHGs, etc.) was mentioned along with the important role that the AAQTF might play with regard to these and other issues in the new Farm Bill.

A discussion about coordination activities between agencies and groups on agricultural air quality issues followed. Chief Lancaster noted how different groups use varying procedures for grant approvals and coordination to address some of these issues. Sheryl Kunickis noted the extensive coordination occurring at ARS and CSREES. In addition, the value of having support from the AAQTF on these issues, and the relevance of these efforts to SIPs and EPA regulations was noted along with the need for AAQTF members to keep an open mind in dealing with these complex issues for the protection of human health.

Attendees talked about the burden that increasingly is being put on producers. The need for legislation in CA and other States that considers the scientific evidence, and that recognizes constraints on agriculture. AAQTF leaders were encouraged to consider presentations from producers to complement ARS presentations on research. Finally, the need for multistate and multicenter studies for better exposure studies with regard to human health effects from agricultural production was also mentioned.

Marc Kesselman (USDA Office of General Counsel, General Counsel)

Marc Kesselman began his comments on air quality regulatory issues by noting how invaluable the AAQTF advice is to USDA. He talked about the PM regulation of coarse particles and its focus on urban sources (i.e., its focus on areas of greatest concern and impact). Work done on monitoring and related improvements for agricultural emissions was also mentioned as a area of AAQTF influence as well as the effort put forth on the Exceptional Events Rule and its relevance to agricultural burning. Definitions under the Clean Air Act relative to agriculture, which are very important for USDA and EPA, was largely

developed because of the AAQTF. In addition, the AAQTF helps track bills in Congress, including the Domenici bill to exclude PM from Ag sources in EPA regulations. They also look at the intersection of issues, such as pesticides and air issues, with regard to agriculture. He also mentioned the Massachusetts case on the regulation of carbon dioxide that has just been argued in the past few weeks. This case involves the separation of the powers within government, with judges making rulings affecting Executive branch employees. In response to the discussion of the CO₂ case, a Task Force member stated that EPA does not understand that everything exhales CO₂, and in particular animals. Mr. Kesselman noted the importance of this case and others like it because of these and other potential impacts.

Mr. Kesselman talked about the interaction between USDA and EPA. He noted that Bill Wehrum at EPA is well versed on the issues under discussion here. He then discussed preamble issues and their language, and how important it is to get it as right as it can be. He also talked about the property line issue and the siting guidance that discusses property line monitors and the importance of proper implementation of these rules.

Task Force members stated it is refreshing to see that USDA has legal counsel involved in air quality issues. Members noted the agricultural burning policy and the need for a national policy so that states cannot implement policies outside of this framework. The suggestion that agriculture be included in the Exceptional Events policy was also mentioned, with members noting that it was not a likely outcome. Members asked if it was OGC's responsibility to pursue this issue and others like it with EPA since many of these seem to get lost in the process. In response, Mr. Kesselman stated that OGC will provide advice to USDA on these issues and others like it, and that he will personally follow up on this. He also noted the good working relationship they have with EPA, and that they will build upon this as we pursue these issues.

In closing, it was noted that California will be evaluating if they can set car standards for CO₂ emissions, which is viewed as a no-win for agriculture. CA AB32 and the importance of these issues to CA were also discussed. Mr. Kesselman made note of the issues and agreed to keep abreast of them.

Mr. Peter Chen (USDA Office of General Counsel, Attorney Advisor)

Mr. Chen presented information on the Federal Advisory Committee Act (FACA) and AAQTF responsibilities, guidelines, ethics, etc. He stated that FACA passage occurred in 1972 because of concerns over the number and costs of advisory committees and lack of accountability to the public (1972). He told Task Force members that individual FACA committees are established: 1) by statute or 2) by Presidential executive order, and that a committee charter must be developed and filed as part of the public record. FACAs are solely for advisory functions. All of their efforts must be done through the agency sponsoring umbrella (for the AAQTF--with the NRCS)

All FACA meetings are open to the public, unless the President or DFO determines it is appropriate to be closed for a period of time under the Sunshine Act. All teleconferences must be open to the public if they include the full FACA. Any member of the public can file a written statement with the committee. All meetings must be called or approved in advance by the DFO as well as chaired by the DFO. Detailed minutes of each meeting must be kept and all records must be made available to the public, including full committee reports, transcripts, minutes, studies, etc.

At the conclusion of Mr. Chen's presentation, a number of questions were posed. For example, one Task Force member asked if AAQTF could make policy recommendations. Mr. Chen replied that it is the Agency's call on that issue.

As a follow on the discussion about the role of the Task Force, Chief Lancaster asked the Task Force for their thoughts on the Farm Bill and other air quality related topics. He prefaced his question on the Farm Bill with a reminder that the Secretary directed him to develop a one page document capturing the Task Force member suggestions for improvements in the next Farm Bill. Suggestions from Task Force members included, but were not limited to:

- The research, conservation, commodity and other titles in the Farm Bill are important for agriculture. Funding for implementation of related activities into mainstream agriculture nationwide should be supported.
- The emergence of bioenergy as a key topic, and also air quality should also be addressed in the Farm Bill.
- The Farm Bill should address the issue of individual vs. aggregator funding under EQIP.
- Underfunding of the Conservation Security Program (CSP) to address air quality and other issues like greenhouse gases/climate change should be addressed. We need to avoid watering down programs like CSP with too broad an approach that doesn't really put the necessary dollars into specific and necessary programs and issues.
- Funding of outreach activities/training on air quality and atmospheric change is needed. Staff from NRCS are needed to develop the educational and technological materials for producers. Sufficient funding is crucial to make this happen.
- EPA and DOE should match funds for agricultural air quality issues, and not put the total burden on USDA, where new dollars for air quality are needed.
- The potential for tax credits for implementation of innovative air quality technologies was also suggested.
- There is a great deal of science that needs to be pursued in regard to issues like CERCLA and EPCRA to determine relevance for agriculture and potential impacts—especially for emissions of ammonia and hydrogen sulfide, which are not criteria pollutants.

In response to the comments, Chief Lancaster said that USDA will closely examine these and other issues under the new Farm Bill and will evaluate the need for change (e.g., fully funding CSP will cost \$9-10 million/year which would take all conservation and most commodity funding titles under the Farm Bill). Chief Lancaster also noted the need for additional discussion on the role of the AAQTF as it relates to its Charter to ensure the role is relevant to agricultural air quality issues. The basis for Task Force involvement in policy and implementation issues needs to be evaluated against the statutory mandate and the Charter. Finally, he emphasized the need to not lose focus so that the Task Force directs its efforts in areas where they can make a difference.

The discussion of the Task Force role and Charter led members to suggest other potential areas where their involvement could be beneficial. For example, members expressed concern about the handling of data and the subsequent development of the emission estimating methodology from the CAFO monitoring study (i.e., NAEMS). In response, Task Force members were told by EPA that the data will be released to the public in a timely fashion. As to the methodology for emission estimation, members were told that there is no methodology in place yet but efforts are moving forward to establish one. EPA said it did not think they will be able to get to a full processed-based approach on the first round of the NAEMS, but its development will probably be a second step. EPA will use these data to establish emission levels for permitting and other compliance purposes. Finally, members wondered about EPA efforts to evaluate the effectiveness of control measures. Jon Scholl said that he was not aware of any major effort to address control measures but concurs with the conclusion that it is appropriate for EPA to fund control measure research and development projects.

(Day One Wrap-Up)

During the Wrap-Up discussion, Chief Lancaster restated that a broad discussion of AAQTF direction and responsibilities will continue to be needed to make sure that agricultural air quality issues of the most critical nature are addressed. He stated that while he viewed the Task Force as a tremendous group for vetting recommendations and decisions with, the group needs to remember that its Charter dictates they focus on the scientific soundness of these decision, recommendations and policies. He stated the Task Force discussion of the NAEMS study and associated policies likely to come out of the study is a good example where the Task Force is following the chartered role and providing value-added. He closed day one of the meeting by telling members that he looked forward to working with them over the next two years. The meeting adjourned at approximately 5:00 p.m.

AAQTF Notes 11/29/2006 (AM) (Day Two)

Call to Order: Dr. Diane Gelburd, NRCS, AAQTF Designated Federal Official, opened the meeting at 8:00 a.m. EST on Wednesday, November 29, 2006.

The meeting was turned over to Merlyn Carlson, Deputy Under Secretary, who welcomed Task Force members. He stated that USDA is looking for a fresh perspective during this exciting time of the 2007 Farm Bill formulation and implementation. You are an important part of the process as we work to address the need for sound science to resolve increasingly important air quality issues. To that end, Chief Lancaster has asked for your input on the 2007 Farm Bill.

Agency Overview, Issues and Priorities: To provide new and old Task Force members with the latest information on USDA research and economic activities related to air quality, speakers from NRCS Office of Science and Technology; the Agriculture Research Service; the Cooperative State Research, Education, and Extension Service; Forest Service; and the Economic Research Service gave presentations focused at providing an “Agency Overview, Issues and Priorities” in their respective areas.

Ron Marlow (Associate Deputy Chief for the NRCS Office of Science and Technology)

Mr. Marlow told Task Force members about NRCS’s 5-year Strategic Plan that includes both Foundation and Venture Goals. These goals include elements of a sustainable agricultural economy as well as goals supporting clean air and water resources. In addition, members were reminded of NRCS’s long term commitment to air quality, a commitment of more than 10 years. As part of that commitment, NRCS has developed an infrastructure that includes air quality staff resources at USDA Headquarters and in its Portland, Oregon office. This infrastructure is continually expanding at the State level so that nearly every state has an air quality contact person.

Staff are involved in policy and technical issues in support of NRCS goals. Efforts include: (1) the development of training materials and technical tools, (2) the review of EPA regulations and guidance documents, (3) the development and delivery of conservation planning tools and (4) assistance with conservation systems. These efforts have resulted in the review of 165 practice standards for their contribution to air quality. In addition, conservation programs like Environmental Quality Incentives Program (EQIP) have contributed \$444 million total in 2005, \$31 million of the money spent on air quality related issues. Conservation Innovation Grants (CIGs) under EQIP have partially or fully funded 7 grants with an air quality focus. Air quality related enhancements under the Conservation Security Program have funded over 18 million dollars of enhancement in 2006. One example of an enhancement is the one time payment of \$500 for generating carbon storage scenarios using the COMET-VR software tool. As you can see, NRCS and USDA are firmly committed to the resolution of these issues.

Charlie Walthall (ARS National Program Leader for Global Change and Air Quality)

Dr. Walthall talked about ARS’ use of research to: (1) understand air pollution processes associated with agricultural emissions and the impacts of pollution on agriculture, (2) test control measures and (3) develop decision aids to minimize, predict and mitigate the impacts of air quality on agriculture. In addition, he told the Task Force about the various program components (i.e., PM and NH₃ emissions, malodorous compounds, ozone impacts, pesticides and VOCs) and the program infrastructure (i.e., the National Program Team). The research program is operated on a 5 year cycle that includes action and project plans, project implementation activities and accomplishment reports. Recent research activities have included: (1) development of a laser system for PM and gas emission measurements, (2) collaboration with NASA for the development of modeling tools and earth observations, and (3) the

modeling of particulate and microbial transport. Information acquired from these efforts will be used to develop guidelines for a number of applications.

Ray Knighton (CSREES, National Program Leader for Air Quality)

Dr. Knighton provided an overview of the CSREES research program. He told Task Force members about CSREES' financial investment in air quality research, stating that nearly \$10M has been invested in 2005, 2006 and 2007 in research dedicated to air quality issues. On-going activities include: (1) generation of a comprehensive PM emission inventory, (2) generation of best practices to reduce PM emissions, (3) acquisition of a better understanding of PM fate and transport and (4) the transfer of technology into the field to reduce PM emissions. In addition, research results showing emission trends for sulfates, ammonia and particulate matter were also discussed. Finally, he told Task Force members about a soon to be released NRI Air Quality Program grant emphasizing the acquisition of emission data, the development of improved measurement protocols, the development of mitigation practices, and fate and transport determination for particle and gaseous emissions.

Al Riebau (FS, National Program Leader for Atmospheric Sciences)

Dr. Riebau provided an overview of the Forest Service program as it pertains to atmospheric research and air quality. He talked about the growing need to understand air quality and forest health, including consideration of climate change variability and the fire atmosphere. Specifically, he talked about the need to understand critical loads as it relates to tree uptake, soil structure and water chemistry. In addition, it is necessary to follow climate change and understand its variability because of its potential effect on fire hazards. He talked about the "Fire Atmosphere" (e.g., fire weather, danger warnings, fire smoke) and why smoke management is important. He also discussed why estimating the impacts of smoke is difficult. Dr. Riebau closed by stating that since forest health is influenced by and impacts air quality, the FS Atmospheric Sciences Program would continue to: (1) develop critical load science, (2) consider climate variability in management of forest ecosystems, and (3) further develop "Fire Atmosphere" approaches.

Marc Ribaud (ERS, Agricultural Economist)

Dr. Ribaud told Task Force members about ERS' function to serve as the main source of economic information for USDA, bringing the perspective of economic analysis to critical issues confronting farmers. ERS air quality research has reported trends of indicators related to air quality (e.g., tillage practices, conservation practices), assessed impacts on air resources from USDA policy implementation and assessed the impacts of environmental policies on agriculture. Finally, he talked about Agricultural Resources and Environmental Indicator publications on the assessment of conservation program design, the assessment of environmental policies and research on commodity markets.

Ray Knighton (CSREES, National Program Leader for Air Quality)

Ray Knighton presented information on ozone research and vegetative impacts for AAQTF consideration. He talked about the ozone formation process, noting the interaction between the atmosphere (i.e., oxygen in the presence of sunlight) and ozone precursors like VOC, NO_x and CO. He noted that typical precursor sources include fossil fuel combustion processes. However, natural vegetation can also be a precursor source (e.g., VOC).

Next, Dr. Knighton talked about the transport of ozone. He told the AAQTF that ozone is not just a local air quality issue because ozone and its precursors are easily transported across urban and rural areas. Transport is important because while mature industrialized nations may be reducing activities associated

with the generation of ozone, these ozone reductions are likely to be offset by increases from global industrialization.

Dr. Knighton also talked about the mechanism behind the impacts on vegetation from exposure to ozone as well as the impacts themselves. He noted that some studies have shown decreases in plant growth and crop yields from exposure to ozone. These studies have included both environmentally controlled chambers and chambers with open tops that are located in the field. Additionally, open field studies with altered air quality have been performed such as the Aspen FACE, SoyFACE and Alberta Alfalfa studies, to name just a few.

Results from these studies show a complex ecosystem with interactions among biotic and abiotic stressors and stimuli. Uncertainties exist because of the variability among species, genotype, and compensatory mechanisms. However, a compelling weight of evidence is emerging from the convergence of results from the many various and disparate assessment methods.

Dr. Knighton suggested that a future direction may be to breed ozone tolerant plant varieties. He stated that we have demonstrated cultivar variation in ozone sensitivity, evidence that genetic approaches can be employed to develop new varieties with improved ozone tolerance. He noted that in the past decade, substantial progress in interpreting the effects of ozone on plants and in the mechanisms by which those effects are mediated has been made. In closing, he suggests that there is much work to be done to translate the scientific information learned to date into useful products.

At 12:00 p.m. the meeting was adjourned for lunch.

Wednesday November 29, 2006

Day Two (Afternoon Session)

The afternoon session of the AAQTF was called to order by Diane Gelburd, DFO, at 1:05 PM. Diane introduced Bill Wehrum, Acting Assistant Administrator, Office of Air and Radiation, EPA.

Bill Wehrum (EPA, Acting Assistant Administrator, Office of Air and Radiation)

Mr. Wehrum stated that the Clean Air Act (CAA) requires that EPA review the National Ambient Air Quality Standards (NAAQS) for each of the six criteria pollutants every five years. He discussed the Particulate Matter (PM) NAAQS, which was promulgated by EPA in September 2006. He indicated that the PM fine (i.e., PM_{2.5}) annual standard was retained without change but the twenty four (24) hour standard was lowered to 35 ug/m³, a reduction from the previous limit of 65 ug/m³. As part of the effort to review the PM NAAQS, the coarse PM (i.e., PM₁₀) standard was also reviewed. The annual PM₁₀ NAAQS was revoked because available information did not indicate a need for the annual standard. In addition, the twenty four (24) hour PM₁₀ standard was retained without change at 150 ug/m³.

He assured the Task Force that EPA was very interested in making sure that the Agency understands the unique issues facing agriculture. He stated that the Agency has an obligation to reduce pervasive pollutants and set the NAAQS limits (primary and secondary) accordingly, noting that the primary standard provides adequate protection of public health while the secondary standard provides protection of public welfare. With this in mind, the decision was made to strengthen the twenty four (24) hour standard to ensure adequate protection. This decision was based on an estimated health care cost reduction between \$9 billion and \$75 billion per year as a result of the revised standard.

With regard to future actions on the PM coarse standard, Mr. Wehrum indicated that speciation (in the case of the PM₁₀ 24 hour standard) was critical. Having information on the composition of PM₁₀ will help EPA make appropriate regulatory decisions. Currently, crustal materials generated in rural areas did not

appear to present a concern. However, urban generated PM₁₀ appeared to be linked to more toxic materials. In closing, he stated that the vast majority of Ag should not be impacted by the changes to the PM NAAQS.

At the conclusion of Mr. Wehrum's presentation, he was asked about the impacts from NAFTA and vehicles traveling from locations that did not have the same restrictions/regulations for equipment as is required by the U.S. Mr. Wehrum indicated that discussions have been held with Canada and Mexico on the issue and some progress is being made.

Other questions posed to Mr. Wehrum included: (1) status of the petition to list diesel emissions as Hazardous Air Pollutants (HAP) and (2) the basis for EPA's regulation of TSP. No response was provided to these questions.

Recommendation:

A request was made by some Task Force members for EPA to provide guidance to regions on issues regarding sampler bias.

Result:

Mr. Wehrum assured the Task Force that this would be happening. [Note: No formal vote was taken on the suggested action.]

Diane Gelburd next introduced Susan Stone, Health Scientist, EPA/OAQPS, RTP, NC.

Susan Stone (EPA, Environmental Health Scientist, Office of Air Quality Planning and Standards)

Ms. Stone provided an update on the current ozone NAAQS Staff Paper, which is due for release in January 2007. She indicated that several different types of studies were used to develop the draft staff paper (e.g., animal toxicity, controlled human exposures, epidemiologic) including information from a California Children's health study. She stated that study results show that ozone irritates the airways and has been known to trigger allergies and that adverse health effects are occurring at levels below the current ozone limits.

Ms. Stone talked about interaction with the Clean Air Science Advisory Committee (CASAC) on the revision of the ozone NAAQS. Based on the scientific evidence, the CASAC suggested that there was no scientific justification for retaining the current 8 hour ozone NAAQS. In fact, the CASAC recommended that the standard be lowered to a range of 0.060 to 0.070 parts per million (ppm).

In addition to the public health effects discussed above, Ms. Stone indicated that the studies showed that ozone has negative public welfare effects (e.g., adverse effects on plant growth). Specifically, studies have shown that ambient ozone levels can cause decreased yield and growth for many crops and forest plants. Leaf injury has been found to be widespread, including loss of vigor. With regard to the form of the standard, EPA found that a seasonal, cumulative, concentration-weighted index form of standard is more appropriate than an 8-hour average limit.

In closing, Ms. Stone stated that the current rule revision is proposed for release by May 2007, with a final rule issued in February 2008.

Diane Gelburd introduced Jon Scholl, EPA Ag Counselor to the Administrator.

Jon Scholl (EPA, Ag Counselor to the Administrator)

Mr. Scholl provided the EPA Agency update. Jon discussed the role of his office and thanked the USDA for its partnership with EPA. He informed the group that his primary role is to provide input to the EPA Administrator on Ag related issues.

Jon talked about the EPA strategy to address Ag related environmental issues, published in May 2006. The strategy included four specific goals to: (1) increase awareness of Ag issues, (2) focus on solutions, (3) focus on better communication, and (4) improve measurement of Ag generated pollution.

Mr. Scholl emphasized the serious need to communicate clear and up-to-date information to the Ag community on rule related issues like the PM NAAQS. He discussed a number of regulatory activities including: (1) the Spill Prevention, Countermeasure and Control (SPCC) rule, (2) the Aquatics Pesticide rule, and (3) the Concentrated Animal Feeding Operation (CAFO) water rule.

With regard to the SPCC rule, he stated that comments have been received from the Ag community and the issues raised by agriculture will be addressed. Regarding the recently signed Aquatics Pesticide rule, Jon stated that Ag producers will not be required to get a permit if label instructions are followed. Finally, Jon told Task Force members that comments received on the CAFO rule are currently being addressed, with publication of the final rule anticipated in the Spring 2007.

Sally Shaver (EPA, Associate Counselor for Agriculture Policy, Office of Air and Radiation)

In addition to the EPA updates provided by Jon Scholl, Sally Shaver provided updates on several EPA activities including the status of the CAFO Consent Agreement. This voluntary consent agreement was open to contract growers and integrators. Currently 2700 agreements exist, representing 13,000 farms. It includes dairy cattle, swine and poultry but does not include turkey operations since too few of these farms enrolled in the agreement.

Ms. Shaver explained that the purpose of the study is to gather data for developing emissions estimating methodologies. Funding is provided by the participating CAFO's. Farms will be monitored for PM, hydrogen sulfide, VOC, and ammonia. Monitoring should begin in early 2007 and will continue for two years. At the conclusion of the study, EPA will have 18 months to recommend a methodology for estimating emissions. In the interim, data will be made available to the public as soon as it has been quality checked by EPA.

The contractor hired by the industry (i.e., Dr. Al Heber of Purdue University) will be responsible for selecting and preparing all research plans. EPA will provide oversight for all plans and site selections. Challenges for the conduct of this study include: (1) changing climate conditions, (2) animal housing variability (e.g., partially enclosed structures, naturally ventilated structures), (3) large open sources, (4) varying feed rations, and (5) animal movement.

Ms. Shaver also provided updates on several rulemakings ongoing in EPA's Office of Air and Radiation (OAR). She specifically noted the PM_{2.5} Implementation Policy is projected to go final in December 2006. She provided copies of a Press Release on the status of the methyl bromide authorization for critical use. In addition, Ms. Shaver provided copies of EPA's memo to Jennifer Snyder of the Corn Refiners Association in which EPA accepted the Association's procedure for measuring VOC emissions from corn wet milling facilities.

At the conclusion of her presentation, one Task Force member asked about whether or not impacts to worker health would be included in the CAFO monitoring study. Ms. Shaver responded that this was not

part of the study and would not be included. In addition, Ms. Shaver was asked about the status of the Ag Burning Policy. Ms. Shaver indicated that no schedule for the release of the policy has been developed but discussions are on-going at EPA.

Diane Gelburd introduced Carole Jett, Special Assistant to the Chief, who provided an update on the activities of the 2007 Farm Bill.

Carole Jett (NRCS, Associate Deputy Chief for Programs)

Ms. Jett provided a historical perspective of farm bill activities since 1995, indicating that Secretary Johanns has taken a proactive approach to the next farm bill and has hosted 60 (plus) listening sessions around the country. Forty one (41) issue papers have resulted from these listening sessions. These papers have been posted on the USDA Farm Bill web page. In addition, she stated that the Secretary had asked Keith Collins, USDA Chief Economist, to develop issue papers which will also be posted on the website. One of the papers that has already been written covers the topic “Conservation and Environment”.

In the area of Environmental Services, Ms. Jett stated that there are four alternatives currently being considered under the Farm Bill. These alternatives include:

- Alternative 1: Improving existing programs -
 - Consolidation of programs
 - Balancing the conservation investment
 - Enhance management of energy conservation and energy sources

- Alternative 2: Providing Green payments (i.e., farmers will be paid to establish buffers)

- Alternative 3: Encouraging Private Sector Markets for market based conservation. Markets must be repeatable and verifiable.

- Alternative 4: Expanding Conservation Compliance – should farmers be required to meet established standards in order to be eligible for assistance. This would be an approved land management standard.

These efforts are being undertaken to support the Secretary’s goal that the next Farm Bill be equitable, predictable and beyond reproach. In response to Ms. Jett’s presentation, the Task Force encouraged her to ensure that monies are allocated in the next Farm Bill to retain NRCS field services.

(Day Two Wrap-Up)

Diane Gelburd thanked the Task Force for its participation and adjourned the meeting at approximately 5:15 PM.

AAQTF Notes 11/30/2006 (AM) (Day Three)

Call to Order: The meeting was called to order at 8:00 a.m. EST on Thursday, November 30, 2006.

Announcements: The Chief told Task Force members that he was at the State Conservationist meeting yesterday and the consensus was that there is a need to focus on air quality. They were excited about the work the AAQTF is doing. Following the announcement, Mr. Paul Argyropoulos of EPA was introduced.

Paul Argyropoulos (EPA, Senior Policy Advisor, Office of Transportation and Air Quality (OTAQ))

Mr. Argyropoulos presented information on EPA's biofuel regulations and related issues. He stated that a lot is going on in the area of biofuels, involving many government agencies. This issue has generated a number of meetings and brought together a number of agencies with participants looking for synergies, including coordination opportunities in economic areas.

Regarding the work performed by OTAQ, Mr. Argyropoulos stated that OTAQ provides a process for permitting transportation industry activities such as bio-refineries. Specifically, they are involved with the development of a renewable fuels standard – one of the most important programs in OTAQ today. OTAQ's approach to these issues includes the following three elements: (1) regulatory, (2) voluntary, and (3) research.

In the regulatory area, OTAQ is performing the following work on biofuels: (1) renewable fuel standard (RFS), (2) fuels and engines regulations, (3) alternative fuel vehicle certifications, (4) Energy Policy Act fuel studies, and (5) State program issues. In the voluntary program area, OTAQ voluntary initiatives include: (1) the National Clean Diesel Campaign, (2) the SmartWay Grow and Go Partnership, and (3) Biomass Technology Workshop (scheduled for December 11, 2006).

These regulatory and non-regulatory activities are addressing emissions of carbon monoxide, benzene, volatile organics, ozone, carbon dioxide and other pollutants. Programs are looking at both road and non-road engines, and assessing potential impacts on the nation's energy supply. These assessments include evaluation of the impacts from increased production of ethanol and the generation of "trading credits."

With regard to next steps on the regulatory front, OTAQ is resolving comments on the RFS rule. They anticipate finalization of the rule in early 2007 and implementation later that same year. There is a lot of work to be done under these regulatory and non-regulatory programs. Funding for many of these efforts will continue to be a challenge.

At the conclusion of Mr. Argyropoulos' presentation, task force members indicated great interest in attending the December 2006 workshop or as a minimum getting copies of presentations from the meeting. He was also told about State efforts and Task Force interest in engine and biofuel issues. Task Force members indicated that an apparent void exists in the following areas as they relate to biofuels: (1) permitting, (2) cross media impacts like water consumption, (3) spill control, and (4) banking and trading of credits. Members questioned the adequacy of current cross-agency interaction on these issues as well as the level of analysis performed to assess the net environmental impacts from biofuel production and use. Members also suggested that EPA evaluate unintended consequences from increased biofuel production such as the market effects on food and feed grains. Specifically, it was suggested that EPA look at the inflationary impacts from increased production of corn ethanol. The discussion concluded with members agreeing to send outstanding questions to Sally Shaver who will send them to Mr. Argyropoulos for a response.

The next speaker introduced was Ms. Amy Royden-Bloom of the National Association of Clean Air Agencies (NACAA).

Amy Royden-Bloom (National Association of Clean Air Agencies, Senior Staff Associate)

Ms. Royden-Bloom presented information on State level environmental issues as they relate to agriculture. She began her presentation by discussing NACAA's 15 committee structure, one of which focuses on agriculture environmental issues. She stated that the Ag Committee has two co-chairs, one for the State level and one for the local government level. Task Force members were told of NACAA's interest to collaborate with the AAQTF on agriculture air quality issues.

Following her opening comments, she talked about NACAA's involvement in data collection and submission to EPA's AIRS database. In addition, members were told that NACAA members are involved in the generation of State Implementation Plans (SIPs) as well as the identification of acceptable control levels like the Lowest Achievable Emission Rate (LAER) and the Reasonably Achievable Control Technology (RACT). Finally, the Task Force was told that NACAA members handle nearly 90% of all enforcement actions.

Ms. Royden-Bloom talked about the environmental concerns of her membership as they relate to agricultural sources. She discussed concerns about the adverse impacts on plants from exposure to ground-level ozone as well as concerns about emissions of: (1) ammonia, (2) methane, (3) greenhouse gases, (4) volatile organic compounds, and (5) dust/PM coarse. She also stated that NACAA members are concerned about potential exemptions or enforcement waivers granted to agricultural sources. She concluded the presentation by re-stating the need for collaboration to identify Best Management Practices to voluntarily reduce emissions.

At the conclusion of her presentation, Chief Lancaster stated support for increased interaction with NACAA.

Following the Chief's statement, Task Force members voiced concerns about some of the information provided by Ms. Royden-Bloom. They talked about the cost associated with "unreasonable control requirements" and discussed the differences between agriculture and other industries which make it difficult for agriculture to pass on the cost of control to the consumer. They also questioned the scientific basis for past and current regulations and the characterization of agriculture activities like manure management as waste management. Members also questioned the basis and benefits for reporting agricultural information under CERCLA and EPCRA. Finally, a number of technical and policy questions were posed which remained unanswered at the conclusion of the discussion.

Recommendation:

The AAQTF recommends that the AAQTF DFO participate and represent the AAQTF on the NACAA Ag committee to get feedback from the air directors back to this group.

Motion:

Motion made by Annette Sharp and seconded by Dr. Wakelyn.

Result:

Motion passed unanimously without comment.

The discussion of the presentation concluded with Chief Lancaster asking Amy when the next meeting of the association would occur and emphasized the need to look for joint opportunities to work on the issues.

Mr. Roger Isom, a current member of the Task Force, was introduced next to talk about environmental issues and regulatory activities affecting agriculture in the State of California.

Roger Isom (Agriculture Air Quality Task Force Member)

Mr. Isom presented information on air quality issues on-going in the State of California. During the presentation he elicited assistance from other members of the Task Force familiar with the issues. Issues covered during the presentation included, but were not limited to: (1) CAFO permits, (2) irrigation pump emissions and permits, and (3) agricultural prescribed burn limitations.

With regard to CAFO permits, Task Force members were told about the need for 260 dairies to get permits, with this number possible growing to 430 dairies (72% of dairy cows in SJV). In addition, the district rule is requiring ambient AQ analysis to assess PM₁₀ concentrations at the facility boundaries. Dairies are finding it necessary to either mitigate emission or purchase offsets which are currently running \$800K total for 5800 cows.

On the topic of irrigation pumps, members were told about the need for permits if emissions reach the level of 12.5 tons/yr of NO_x or higher. Based on the current evaluation, large engines that are 3 to 4 years old are triggering the requirement for local permits. If emissions reach the level of 25 tons/yr NO_x, Title V permit requirements will be triggered. In addition, source test compliance/monitoring and control requirements on engines larger than 50 horsepower will likely be required by 2008. Engine replacement costs to reduce emissions can be as high as \$70K. The petition to EPA to declare diesel engines as hazardous air pollutants could also result in regulatory requirements.

Another area of concern involves the ban on Ag prescribed burning. Regulations in the San Joaquin Valley currently prohibit the burning of field crop residue, pruning material, and weed abatement burns. By 2007 the burning of orchard removal material will also be banned and by 2010 all agricultural prescribed burn activity will be banned. There are a few exceptions such as the burning of disease plants/crops. Associated with the ban is an increased cost to manage these materials in another manner other than burning.

Many of these regulation and restrictions are driven by failure of counties in California to meet the NAAQS limits on ozone and particulate matter. The challenge to achieve large reductions is placing increasing burden on the farmer. Some of the burden has been offset by incentive programs like the Carl Moyer diesel engine replacement program and the related EQIP program.

At the conclusion of the presentation, Task Force members talked about these issues and their concerns over monitoring at the property line and the need for costly offsets. The accuracy of models used to estimate emissions was discussed as well as the need to properly define agriculture as a source for Clean Air Act applicability purposes. The determination as to what agricultural emissions are fugitive and how fugitive emissions should be handled under the NSR and PSD programs was also discussed as an issue requiring resolution. Finally, the need for more training and interaction of regulators and producers was identified as a need.

At the conclusion of Mr. Isom's presentation and the subsequent discussion, the public comment period was opened. Only one member of the public, Ms. Michele Merkle, requested to speak. Ms. Merkle was introduced to the Task Force and provided 5 minutes to speak.

Michele Merkle (Environmental Integrity Project, Senior Counsel)

Ms. Merkle provided the following public comment. She stated that she works with communities who live around refineries, other industry, and CAFOs. These communities wonder why regulators don't enforce existing regulations on agricultural operations. There is concern that the Consent Agreement doesn't cover enough facilities or types of facilities. She recommends that the Task Force review the agreement and monitoring protocols. She also wants the agreement to include a determination of how to reduce emissions as part of the monitoring study. She stated that scientific studies recently published express concern about growth of livestock operations without commensurate improvements in emissions reductions technologies. There is also concern about the poultry petition for CERCLA/EPCRA – requesting exemption and rule changes. Livestock operations are major emitters of ammonia and should be regulated and controlled because of fine PM. Enforcement people should be invited to these meetings to talk about why they did what they did.

At the conclusion of the public comment period, Task Force members recognized Diane Gelburd for her service as the out-going DFO of the AAQTF.

Prior to the break for lunch, Chief Lancaster asked for recommendations for the location of the next AAQTF meeting. It was suggested that the next meeting be held in California. It was stated that the "California delegation" would be happy to host the meeting and would offer late spring as a possible date. Other members of the Task Force suggested that the southern end of California (i.e., San Diego area) would be a good location since it offered the opportunity to see a biodiesel facility, other Ag operations, and abatement strategies and innovations in the area. A discussion about the timing of the visit included concerns about local weather, seasonal farm activities (or the lack thereof), and the need to not push the date for the meeting out so far that actions started today lose momentum. Chief Lancaster concluded the discussion by stating that the committee appears to be of one mind. Therefore, the location of the next meeting will be California.

Additional business conducted before the lunch break included: (1) the acceptance of the recommendation to shorten the post-lunch committee breakout session, (2) the reminder to send questions on biofuels to Sally Shaver for further consideration by EPA, and (3) the reminder that travel reimbursement documents are available on the table. Members were also reminded to make a copy of their voucher before sending the original to USDA.

At 12:00 p.m. the meeting was adjourned for lunch.

Thursday November 30, 2006

Day Three (Afternoon Session)

Call to Order: The afternoon session of the AAQTF was called to order by Diane Gelburd, DFO, at 1:00 PM. Task force members were instructed to regroup with their committee members until 1:30 p.m. to continue the brainstorming activity of developing their draft action plans.

At 1:30, a request was made and granted to allow another fifteen minutes for the committee breakout. At approximately 1:45 p.m., Task Force members re-grouped for a report out on the draft action plans developed by each committee. The purpose of the report out session was to share the initial thoughts of each committee with other members of the Task Force regarding potential environmental air quality issues to be addressed over the next two years. Action plans presented to the Task Force at this time are draft documents, requiring additional development. Upon revision of the action plans, each committee will bring the plan forward to the Task Force for discussion and adoption by the entire Task Force.

Emerging Issues Committee

The first committee to report out was the Emerging Issues Committee. Some of the issues identified as requiring resolution by this committee include, but are not limited to: (1) property line emission monitoring, (2) NH₃ as a PM_{2.5} precursor (e.g., can it be, should it be, implications), (3) implications of the new 8-hr ozone standard, (4) issues related to the development of an emission estimating methodology based on data from the CAFO monitoring study, (5) the potential to emit (PTE) issue and the assumption of 24/7 operation, and (6) the use of total suspended particulate (TSP) for determining the threshold under the prevention of significant deterioration (PSD) program.

GHG and VOC Committee

The next committee to present its draft action plan was the GHG and VOC Committee. Some of the issues identified as requiring resolution include, but are not limited to: (1) the evaluation of minimum standards for measuring, monitoring, and verifying GHG sequestration for the purpose of marketing and trading GHG credits, (2) the need for development of an auditing protocol for verifying emissions (or uptake) and the development of a coordinated method to apply predictive technologies, (3) identification of the uncertainties in GHG emissions and mitigation, (4) development of conservation management strategies (practices) that support the environmentally safe use of pesticides and (5) clarification of definitions of no-till, strip till, mulch till, and other types of tillage and cropping systems.

Diesel Engines and Alternative Fuels Committee

The next committee to report out was the Diesel Engines and Alternative Fuels Committee. They started their report by suggesting that the committee be renamed to the “Internal Combustion Engine and Alternative Fuels” Committee. Since no objections were raised, the name of the committee was changed. In addition to the name change request, the committee indicated that they identified over fifty issues that need to be addressed by the committee. Their plan included addressing issues related to: (1) identification of research needs related to engines and alternative fuels, (2) emission quantification, and (3) development of practices or conservation systems to assist farmers when controls are needed, to name just a few issues. The committee report out included a plan for future teleconference meetings to further develop the plan with the idea that the plan would be finalized by February 2007.

AFO Committee

The fourth committee to report out was the AFO Committee. The AFO Committee organized their issues into Group A (i.e., urgent priority issues) and Group B (i.e., high priority issues). Group A issues included, but are not limited to: (1) identification and quantification of the effectiveness of Conservation Management Plans, (2) development of guidance on CERCLA/EPCRA to resolve applicability, permitting and reporting issues, and (3) development of an appropriate emission estimation methodology for AFO emissions. Group B issues included: issues associated with farm size, integrators and how to work various incentives, (2) PM NAAQS (including PM Coarse and PM Fine) and EPA measurement methods, and (3) identification or clarification of appropriate definitions for applicability of regulations to agricultural sources.

PM and Ozone Committee

The last committee to report out was the PM and Ozone Committee. Issues of importance identified for inclusion in the committee action plan related to PM include: (1) PM sampler oversampling for Ag particulate, (2) PM monitoring and implementation, and (3) the representative pollutant issue to name just a few issues. With regard to ozone, the committee identified issues like the need for information in

support of ranking agricultural VOC emissions according to ozone formation potential (reactivity and volatility) and the need to evaluate the potential impacts of the primary and secondary ozone standards on agriculture after EPA completes its latest revision of the ozone NAAQS.

At the conclusion of the discussion on the draft action plans, committees indicated that they would be holding teleconference to finalize their action plans in anticipation of putting the plans forward for consideration by the entire Task Force. In addition, Task Force members made suggestions to support future AAQTF work such as the need to include links to air quality research on the AAQTF website to help Task Force members stay current on research activities related to the AAQTF focus. Others suggested that a presentation on the economic effects of using grain for increased production of ethanol rather than for animal feed would be useful. Finally, a recommendation was made regarding EPA's use of TSP in New Source Review (NSR) and PSD determinations.

Recommendation:

The Task Force should draft a letter to Mr. Bill Wehrum, EPA Acting Administrator for the Office of Air and Radiation, requesting collaboration with EPA on the development of an appropriate approach for the use of TSP when making NSR and PSD threshold determinations.

Motion:

Motion made by Dr. Shaw and seconded.

Result:

Motion passed unanimously without comment. [Note: Dr. Wakelyn offered to develop the letter which will need to be approved by the full Task Force prior to release to Mr. Wehrum.]

Closing Comments: Diane Gelburd thanked the committees for their work and dedication shown in the development of their action plans. Chief Lancaster added that he was impressed with Task Force member efforts during the meeting. The decision regarding the timing of the next meeting will hinge both on approval of a budget to support the meeting and on member schedules to maximize the inclusion of members. Following Chief Lancaster's remarks, the Chief and the staff were thanked for organizing the meeting.

After thanking Task Force members and staff for their participation in the meeting, Chief Lancaster adjourned the meeting at approximately 3 p.m.