USDA Agricultural Air Quality Task Force
Meeting Summary and Recommendations
Boise Idaho April 30 - May 1, 2014

Overview

The USDA Agricultural Air Quality Task Force (AAQTF) met for two days on April 30-May 1, 2014 at the Oxford Suites hotel in Boise ID. Of the 28 AAQTF members, 24 were in attendance. Those not attending were Manuel Cunha, Brock Faulkner, Brenton Sharratt, and Bryan Shaw. USDA Air Quality-related staff also was present, as well as five staff from the EPA.

The first day of the meeting included an overview of Idaho agriculture and air quality issues, legal perspectives on ammonia regulation in the U.S., an update on the state implementation plan (SIP) creditability of voluntary emissions reductions in California, a USDA greenhouse gas and climate change update, as well as agency updates from EPA, Forest Service, ARS, NIFA, and NRCS. The second day of the meeting included a discussion of agricultural air quality success stories, an overview of agricultural air quality in Alberta, an overview of ammonia and atmospheric chemistry, a public comment period, and subcommittee reports and recommendations.

Specific updates, action items, and recommendations from the subcommittees that were presented to the full AAQTF membership at this meeting were:

Air Quality Standards (AQS) Subcommittee

The AQS subcommittee has committed to developing success stories for the following topics:

- Agricultural equipment replacements in California's San Joaquin Valley
- Cotton gin air monitoring efforts

The AQS subcommittee provided the following recommendations, **which were approved by the full Task Force at the meeting:**

- Control measures for ammonia should only be required in state implementation plans if additional reductions are found to be needed to meet health-based air quality standards, and if there is there is clear scientific evidence that reasonable measures to reduce ammonia emissions would be effective in significantly reducing ambient concentrations of fine particulate matter.
- When preparing implementation plans, state and local agencies should prioritize control measures that reduce particulate matter emissions that result in the most significant adverse health effects. Chemical composition, particle size, the way the materials are released, and the potential for population exposure should be considered in these analyses.
- Research should continue into the relationship between ammonia emissions and ambient concentrations of fine particulate PM, and into the proper management of agricultural ammonia emissions.

If controls for ammonia emissions from agricultural operations are determined to be legally required under the Clean Air Act:

- The focus of any additional efforts to control ammonia emissions from affected agricultural operations should be on developing reasonable, responsible management practices for minimizing emissions of ammonia.

- The diversity of the industry, impacts on the economy, food production and other environmental impacts (especially on water) should be fully considered before establishing any new requirements.

The AQS subcommittee also made the following recommendation related to the review of the Paulot & Jacob ammonia article:

> The USDA AAQTF concurs with the findings of Faulkner et al. in their article entitled "Comment on 'Hidden Cost of U.S. Agricultural Exports: Particulate Matter from Ammonia Emissions,'" and encourages the editor of *Environmental Science and Technology* to consider the article for publication, pursuant to the journal's standard editorial and publication policies, in order to stave off potential unintended consequences leading to development of poor air quality policy as a result of the conclusions drawn by Paulot and Jacob (2014).

It was determined that the AAQTF members would review the recommendation and review article, and a vote on accepting this recommendation would be taken via e-mail prior to May 15, 2014.

Emissions Measurement and Mitigation (EM^2) Subcommittee

The EM^2 subcommittee has committed to developing success stories for the following topics:

- Conservation management plans for PM10 reductions in CA and AZ
- Using conservation tillage to reduce PM emissions in CA
- Conservation tillage effects on GHG emissions
- Conservation tillage and water use efficiency
- Conservation tillage and soil health
- Layer-hen housing belt systems for manure management
- Prescribed burning for wildfire mitigation

The EM^2 subcommittee is also currently working to prepare a white paper related to the implications for regulating ammonia from agricultural operations. The white paper is intended to be targeted to regulatory agencies and personnel to provide them with an understanding of the issues to consider and how ammonia is different than other traditional regulated air pollutants and will likely also have to be regulated differently.

The EM^2 subcommittee did not provide any recommendations at the Boise meeting.

Climate Variability Impacts (CVI)

The CVI subcommittee has not yet committed to developing any specific success stories and did not provide any recommendations at the Boise meeting.

Next Steps

Chief Weller has assigned Adam Chambers (AQAC Team) to work with NRCS Public Affairs staff and the AAQTF subcommittees to prepare, publish, and disseminate success stories developed by the subcommittees.

The next AAQTF meeting will be held from August 19-21 (tour on the 19th) at Texas A&M University in College Station TX. All three subcommittees plan to be very active in the interim periods, with regular,

frequent subcommittee teleconferences (monthly or so) organized by NRCS liaisons. Some possible topics for this meeting were identified and include: Ammonia (mitigation methodologies, more about its atmospheric chemistry, etc.); highlights of some specific greenhouse gas Conservation Innovation Grants; anaerobic digester and gasification technological advancements; the California GHG scoping plan and implications for agriculture; air quality and agricultural sustainability (including possible metrics, standards, stewardship levels, environmental markets, etc.); and collaborative agricultural approaches to air quality.