

November 26, 2003

California Livestock TOG Emissions Updates Message

During an Emission Inventory Technical Advisory Committee (EITAC) meeting about a year ago, those present agreed that the ARB would take primary responsibility for estimating livestock emissions for the state. We provided our draft estimates for total organic gases (TOG) to the districts in October 2003. Based on comments received, we made several corrections to the data regarding allocating emissions to counties split by air basin or district lines.

To meet scientific and policy deadlines, the updated livestock data were loaded to the CEIDARS database and are now incorporated into the baseline data used for Central California Ozone Study (CCOS) modeling. Any additional updates to the livestock emissions will be incorporated to the current and future CEIDARS data sets, but the CCOS modeling data will remain unchanged.

In reviewing the draft livestock emissions data, six districts provided updated population estimates. Unfortunately, in attempting to incorporate the district-by-district population changes, we found that it was not technically sound to make the revisions without significant additional validation and feedback.

In summary, we ran into two main issues in attempting to update the livestock population estimates using district or county supplied population data. First, all of our estimates are currently based on consistent data sets from CDFA (beef and dairy cattle) and USDA (all other livestock). By updating some counties and not others, populations would no longer be on the same basis. This creates inconsistencies because population data provided by local county agricultural commissioners can be inadequate for emission inventory purposes. For example, agricultural commissioner population counts typically do not include support animals (calves, heifers, bulls) for cattle, and do not include residence time adjustments (for poultry). So, using different county data based on different assumptions would create inequities between regions.

The second issue has to do with non-cattle livestock. The most recent county specific data for these animals (poultry, swine, horses, goats) is from the USDA 1997 census (a 2002 census is in progress). These county data are scaled to the year 2000 using overall statewide population counts for 2000. In some counties, numerous livestock operations have closed or moved, but we do not have a reasonable process to readily collect this information for each county in the state. In addition, particularly for poultry, many animals are not allocated to specific counties to avoid disclosing confidential information, but these animals must be allocated somewhere, so they are distributed to counties not disclosing their populations.

For more detailed information regarding these issues, or if you are considering updating your district's livestock population data, please see the link below that provides a discussion of the population estimates and the updated data.
<http://www.arb.ca.gov/emisinv/areasrc/drftmeth.htm>

If after reading the supporting documentation and consulting with your local livestock experts, you would like to update the ARB default livestock population data loaded to the CEIDARS emissions database, we will assist you in that process through our district liaisons.

The ARB contact for the livestock methodology is Patrick Gaffney at pgaffney@arb.ca.gov.