UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
AIR AND RADIATION

Mr. Terry L. Stokes
Chief Executive Officer
National Cattlemen's Beef Association
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Washington, D.C. 20004

Dear Mr. Stokes:

This letter is in follow up to my letter to you of June 5, 2006. This letter responds in greater detail to the potential requirements of the Environmental Protection Agency's (EPA) major source Clean Air Act (CAA) permit programs as they relate to cattle feeding operations. This letter also presents EPA's views regarding whether air pollutant emissions from certain activities at open-air cattle feeding operations are presumed to be either fugitive or non-fugitive emissions for purposes of EPA's rules for air permitting that implement the major New Source Review (NSR), including Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NNSR), construction permit and Title V operating permit requirements of the Clean Air Act. The cattle feeding operations discussed in this letter include: cattle loading and unloading by either truck or rail; feed mill operations for unloading, storage, blending and loading of grains and other feed ingredients; open-air, fenced-in lots or pens where animals are kept and fed until ready for market; and retention ponds to capture runoff from the feed lots and other on-site activities due to precipitation.

Under EPA's air permitting programs, only non-fugitive emissions count towards determining the applicability of those programs to cattle feeding operations. Based on site visits and the observations of its personnel, EPA generally presumes that air emissions from cattle loading and unloading, cattle feed lots, retention basins, roadways, and feed loading operations are fugitive emissions that do not count when determining major source status for construction and operating permitting. For cattle feeding operations, air emissions emitted from stacks, chimneys, vents, or functionally-equivalent openings associated with the feed handling, storage, and preparation operations are generally presumed by EPA to be non-fugitive and therefore count towards major source applicability. Emissions from feed handling storage and preparation operations which do not come from stacks, chimneys vents or functionally equivalent openings would generally be presumed by EPA to be fugitive, but more specific information may be needed on a case-specific basis to confirm that presumption. Emissions from any silo vents or openings are also generally presumed to be non-fugitive. Any dust generated from trucks traveling on the access roads and roads around the feed mill is presumed to be fugitive.

Background

At the request of the National Cattlemen's Beef Association, EPA representatives visited open-air cattle feedlots in Kansas, Idaho, and Texas. The purpose of the visits was to observe on-site operations that may result in air pollutant emissions and to evaluate whether air emissions from the various activities should be considered by EPA as either fugitive or non-fugitive emissions. These evaluations were designed for purposes of determining if these sources are major stationary sources that need to obtain major NSR construction or Title V operating permits as required under EPA's permit regulations.

Permit Requirements

The major NSR provisions of the CAA apply to new or modified major stationary sources of air pollutant emissions. State or local construction permit provisions also apply to certain changes at both major and minor stationary sources. The Title V operating permits program applies to existing and new major stationary sources. In most areas, these permitting programs are administered by States or local permitting agencies. The major source threshold in tons per year for permitting varies and depends on the permitting program, the air pollutant, the area's attainment status for that particular pollutant, and source category.

Under EPA's permitting programs, only non-fugitive emissions count towards determining the applicability of those programs to cattle feeding operations. Both EPA's major NSR and Title V regulations define fugitive emissions as "those emissions which could not reasonably pass through a stack, chimney, vent or other functionally-equivalent opening." See, e.g., 40 C.F.R. 70.2. Emissions at a source that actually pass through a stack, chimney, vent or other functionally-equivalent opening are non-fugitive emissions. An owner or operator of a source must include the fugitive emissions of all hazardous air pollutants (HAP) listed under section 112(b) of the Act in determining whether the source is a major source for purposes of section 112 and Title V, regardless of whether the source falls within a listed source category. See National Mining Ass'n v. EPA, 59 F.3d 1351 (D.C. Cir. 1995). In practice, we interpret the phrase "could not reasonably pass" by determining whether such emissions can be reasonably collected or captured (e.g. enclosures or hoods). Under this interpretation, any emissions actually collected or captured by the source are non-fugitive emissions. The answer is less clear when the source is not currently collecting or capturing the emissions. In these circumstances, we make case-by-case determinations as to whether a source could reasonably collect or capture such emissions.

Decisions on whether the emissions from a particular source are fugitive or non-fugitive are made on case-specific circumstances by the permitting authority. While this letter addresses the sources at cattle feeding operations we observed, it is possible for individual circumstances to change the general conclusions reached in this letter. Under EPA's rules for the typical cattle feeding operation, any emissions considered fugitive do not count towards determining if the source is a major stationary source.

Below is more detailed information regarding various activities observed at the cattle feeding operations. In general, we do not attempt to address situations where sources other than the ones we discuss below exist at particular cattle feeding operations.

Feed Lots - The cattle population of the sites we observed ranged from around 4,000 to 150,000 head. The largest feed lot complex was approximately 750 acres. The cattle arrive weighing approximately 300-500 pounds and after 6 months or so they leave weighing approximately 800-1500 pounds, depending on the breed. After reaching the proper weight, the cattle are sent by truck or rail to meat processing plants. The cattle are kept outside in fenced feed lots and are not housed in barns. We observed wind-blown dust (i.e., particulate emissions) from the feed lots that was generated by hoof movement of the cattle in the corrals. Dust was also generated from movement of horses that are used by cowboys in the corrals. Some lots use sprinkler systems as needed to reduce dust, especially in dry conditions. We generally view the emissions from such feed lots as fugitive emissions because it is not reasonable to cover or vent these large open areas.

Storage/Retention Basins: The retention basins at cattle feedlot operations are designed to retain runoff from the feedlots. In the situations we observed, there are natural barriers in place to prevent solids from entering them. However, a small amount of manure may reach the basin. The volume is usually designed for a minimum of 45 days storage of precipitation and runoff from a 25-year, 24-hour storm. Since many cattle feedlot operations are in areas with very little annual rainfall, the basins may not contain water on a continuous basis. The water is held and is usually used for irrigation on nearby lands. In the more arid areas, the basins may be very large but are also very shallow. It should be noted that these are not lagoons or publicly owned treatment works which are designed for wastewater treatment purposes. Anaerobic or aerobic lagoons are specifically designed and operated to allow a certain amount of time for treatment of the wastewater, and they receive the wastewater from the animal facilities within a very short period of time. At cattle feedlots we visited, the manure is not conveyed to the basin directly as it is at other types of animal production facilities which collect and treat the wastewater in lagoon systems. The manure remains in the feedlot to be managed there, and only the small portion which mixes with the rainwater may reach the retention basin itself. The manure is scraped from the pens usually on an annual basis and is then spread on nearby lands. Emissions from retention basins are primarily ammonia, with much smaller levels of hydrogen sulfide and volatile organic compounds. All of the basins observed were open-air, and we are not aware of any cattle feeding operations that cover their retention basins. We were made aware that some retention basins have never contained any runoff water. Due to the size of the basins, their fluctuating levels due to variations in precipitation and evaporation, minimal emissions, and expenses involved, EPA's presumption would be that it is not reasonable to cover and vent these large basins and that therefore the emissions would be presumed to be fugitive. There may be circumstances where a particular basin may be reasonable to cover and vent, such as if the basin were being utilized as a wastewater treatment lagoon. The decision of whether the emissions are fugitive will need to be confirmed on a case-by-case basis. The interpretation of emissions from retention basins only applies to Clean Air Act requirements and not to the Clean Water Act and implementing regulations applicable to animal feeding operations.

Feed Mills - Different feed ingredients (e.g., grains, corn, supplements) are trucked in, unloaded, stored in silos or piles, and then mixed to feed the cattle. During feed material loading and unloading, some visible dust (i.e. particulate emissions) is generated by truck dumping and use of front end loaders. In some cases, there was a building housing the boilers and feed preparation operations. The boilers, typically gas- or propane-fired, provide heat used for feed processing. Boiler stack emissions are clearly non-fugitive. There are several vents throughout the building. Any emissions that may come from these openings would generally be viewed as non-fugitive. There are also other openings throughout the building for access and ventilation. Based on the observations on the visits, EPA would generally presume emissions from these openings to be fugitive but more specific information may be needed on a case-specific basis to confirm that presumption. Emissions from any silo vents or openings are also generally presumed to be non-fugitive. Any dust generated from trucks traveling on the access roads and roads around the feed mill is presumed to be fugitive.

Please note that this letter merely sets forth EPA's current views, which may be applied by the Agency in exercising its authority to determine major source and major modification applicability issues under the Clean Air Act. Any EPA decision applying the views expressed in this letter to a particular situation will be made based on the applicable statute, regulations, and factual circumstances. In addition, this guidance is intended to assist in the decision-making process that the appropriate State or local permitting authority must go through as it addresses these issues on a case-by-case basis. Accordingly, the views set forth today do not constitute final agency action for purposes of judicial review. This letter only addresses open-air cattle feeding operations.

Thank you for your correspondence, and I hope the views expressed in this letter respond to points made in your letter.

Sincerely,

William L. Wehrum
Acting Assistant Administrator