

Recommendation to the Fort Collins City Council

from the City Air Quality Advisory Board

regarding Draft Construction Permit issued to Martin Marietta Materials, Inc.

August 25, 2014

We are pleased to offer the following comments regarding Draft Construction Permit number 13LR2446 issued to Martin Marietta Materials Inc (MMM). We reviewed the technical report analyzing the Draft Permit, prepared by Air Resource Specialists, Inc., for the City of Fort Collins Environmental Services Department and the Larimer County Department of Health and Environment, dated August 2014. We used the report to assist the Air Quality Advisory Board in preparing our comments below.

Our interest lies in the fact that the plant, though not in our city, is immediately adjacent to our city neighborhoods. Residents of these neighborhoods have well-stated concerns about the effect of emissions from this facility on their health and safety. Many of these concerns can and should be better addressed in the permit analyses and permit conditions. Due to the close proximity of many homes and a school, special care needs to be exercised by the State in issuing permits to construct equipment, operate the plant, and maintain emissions compliance at this facility. Consequently, we are requesting that the State air permit(s) to MMM go the extra mile. Using the discretion allowed within the State Air regulations, the APCD can ensure that the MMM facility is an extra-clean model Asphalt Batch Plant.

With this in mind, we find the draft permit to be seriously deficient. After correcting these deficiencies, we request that the State issue a second draft construction permit and restart the 30-day comment period to allow review of the additional information. The deficient areas are:

- Xylene, hexane, and polycyclic aromatic hydrocarbons (PAH) are hazardous air pollutants for asphalt batch plants that are missing from the analyses. Toluene emissions are incorrectly calculated. The emission factor (EF) listed in AP-42 for hexane is 0.00092 lb/ton, for PAH 0.00019 lb/ton, and for xylene 0.00020 lb/ton. For toluene emitted from the drum mix asphalt source, it appears the draft permit used the AP-42 emission factor for #2 fuel oil rather than for natural gas.
- The analysis fails to consider and the draft permit fails to include emissions from the aggregate materials mining and processing operation immediately west of the asphalt plant. The Clean Air Act defines a source as “*Any building, structure, facility, equipment, or installation, or any combination thereof belonging to the same industrial grouping that emit or may emit any air pollutant subject to regulation under the Federal Act that is located on one or more contiguous or adjacent properties and that is owned or operated by the same person or by persons under common control.*” Thus, all operations from mining through asphalt manufacturing should be part of one consolidated permit. Though the materials mining and processing operations

primarily emit particulates, proper control of the emissions as a stipulation of the permit would also necessarily help reduce fugitive HAPs that have adhered to the particulates. The net result of such controls will be an overall cleaner facility.

We also find that the draft permit did not include several standard and routine permit conditions that if implemented can make MMM a model facility. We strongly recommend that the permit explicitly address each of these additional issues.

- Make enforceable all of the control equipment currently operating on the asphalt plant that reduces ozone precursor emissions. MMM is within the Denver/Northern Front Range ozone nonattainment area therefore Reasonably Available Control Technology (RACT) should be required on volatile organic compound (VOC) sources. MMM has installed and is currently successfully operating control equipment to reduce emissions of VOCs and associated hazardous air pollutants including recycling exhaust air from the asphalt plant outlet conveyor back to the asphalt plant burner along with installing condensers on the liquid asphalt storage tanks. The APCD has determined that “no additional control” meets RACT. But MMM is already using these technologies so they have to be considered reasonably available and therefore must clearly constitute RACT. It makes sense then to add these control measures and devices as legally enforceable conditions in the permit.
- Make the process for designing and approving the Operating & Maintenance (O&M) Plan open and transparent by requiring notification by the State of the public, the City, and other governmental entities when the plan is submitted to the APCD by MMM, allowing the public to comment on the proposed details prior to APCD approval, and including the final O&M plan in the permit. Key to protecting the community affected by this facility is ensuring that the facility operates within the limits allowed in the permit. Sufficient compliance measures should be employed to ensure that the control equipment is operating properly and that emission testing is done as often as is necessary. This includes the ongoing monitoring and recordkeeping that MMM plans to undertake to document compliance with the terms and conditions of the permit. Completeness is critical since all commitments for compliance monitoring and recordkeeping made by MMM in the O&M Plan will become enforceable requirements of the permit.
- Make odor detection, control and abatement measures enforceable. This plant has been and is currently subject to odor complaints. The company has previously responded to these complaints with specific measures. These measures should be included in the permit as legally enforceable conditions.
- Include as permit conditions Sall Reasonably Available Control Technology (RACT) and Reasonably Available Control Measures (RACM) requirements for all sources (point, mobile, and non-point) for all of the operations from mining through asphalt manufacturing, as part of the consolidated permit and O&M Plan described above.

- APCD should find that CO emission factors listed in AP-42 for natural gas-fired drum mix hot asphalt plants, like MMM, constitute RACT. If this were the case, the permitted CO emission limit for MMM would be lower. MMM lies within a designated attainment-maintenance area for carbon monoxide (CO), where new/modified CO emission sources are required under Regulation #3, Part B, III.E to install reasonably available control technology (RACT). The APCD has determined that for MMM, “no additional control” meets RACT. Yet AP-42 shows a CO emission factor for a natural gas-fired facility of 0.13 lb/ton. This is less than half the 0.291 lb/ton emission factor established in the draft permit. Unless APCD can defend its decision, the more stringent emission factor and emission limit should be used.
- The permit should require that this specific source be tested to confirm the presence and emission rate of hazardous air pollutants, especially those known to be carcinogenic. The key concerns of residents in proximity to this facility are the HAPs. Though we recognize that the State has limited authority over HAPs and their control, confirming the actual HAPs emissions from the facility would substantially help inform everyone about the level of threat. HAPs quantification is required in some other states. For example, in North Carolina, in 1999 the Division of Air Quality issued an asphalt plant permitting policy, which requires new and modified asphalt plant applications to quantify all 97 Toxic Air Pollutants (TAPs) emitted to determine the need for air toxics permit limits using EPA AP-42 emissions. If the emissions of a specific TAP are below their regulatory threshold in NC Regulation 15A NCAC 2Q.0711, an air quality permit is not required. If the TAP emissions exceed its threshold, a dispersion modeling demonstration must be performed. The results of this model must show that the emissions are below the acceptable ambient level (AAL) listed in NC Regulation 15A NCAC 2D.1104, and air quality permit emission limit, for the respective TAP not to exceed the AAL, is required. See <http://www.ncair.org/toxics/asphalt/>)
- Opacity testing should be conducted using both fuels (natural gas and LPG) approved in the permit.
- Emissions tests should be completed on a regular cycle for the plant on both approved fuels, natural gas and LPG. For example, in some other states, annual testing of equipment is required. For example, Arizona’s General Permit for Hot Mix Asphalt Plants requires that, if any equipment has emission limits specified for any criteria pollutants, the Permittee is required to conduct performance tests once every year. (See: http://azdeq.gov/calendar/sveugp_hmap.pdf, page 24.)
- The permit should specify whether or not the particulate testing is required to include condensable particulate matter (CPM). The hot exhaust from the baghouse emissions stack suggest that CPM emissions may be present, so the CPM fraction of the PM emissions needs to be regulated even if not otherwise included in the proposed permit limits.