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To the members of the House Committee on Environmental Regulation.

April 19, 2021

Via hand delivery.

Re: HB 767 by Rep. Huberty - Supporting testimony of Public Citizen

Dear Chairman Landgraf and members of the committee:

Public Citizen appreciates the opportunity to testify for HB 767, Relating to best management practices for aggregate production operations.

The bill directs the Texas Commission on Environmental Quality (TCEQ) to develop best management practices for the aggregate production industry and to publish those practices on the TCEQ website. Currently this industry is subject to registration and, every three years, inspection by the TCEQ. There are no established best management practices.

I. Particulate matter has serious health impacts

Best practices for these facilities are necessary to reduce emissions of fine particulate matter (PM_{2.5}). Every year 17,000 Texans die from air pollution.¹ Particulate matter is by far the most dangerous pollutant in Texas. Particulate matter is associated with a wide range of health impacts including:

- Death²
- Heart Attack³
- Stroke⁴
- Diabetes⁵
- Impairment of brain development.⁶
- Low birth weight, with the strongest association being for road dust⁷

Air pollution regulations in Texas often target ozone pollution because many areas of the state do not meet the federal Clean Air Act standards for ozone. But in fact the overall health impacts of particulate matter are far greater than those of ozone. Two examples follow:

¹ See http://acmg.seas.harvard.edu/publications/2021/vohra_2021_ff_sup.pdf.

² See <https://www3.epa.gov/region1/airquality/pm-human-health.html>

³ See <https://www.thelancet.com/action/showPdf?pii=S2542-5196%2819%2930262-1>.

⁴ See <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6176083/>.

⁵ See <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5583950/>.

⁶ See <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5017593/>.

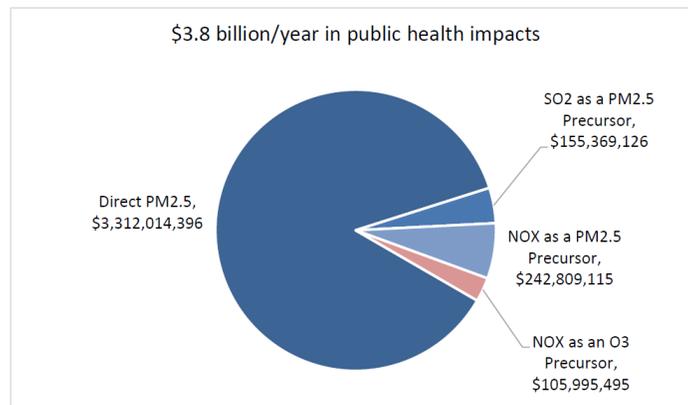
⁷ See <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3055585/>.



A. PM health impacts in Central Texas

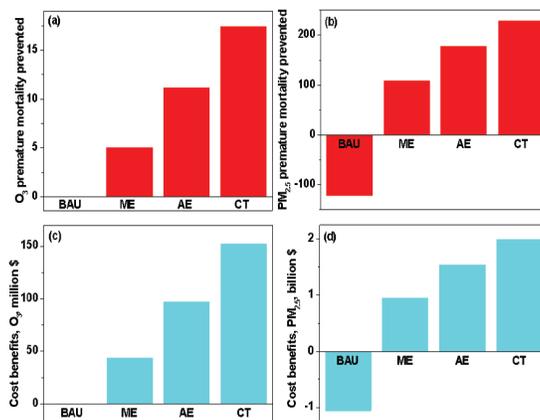
In a recent analysis of the health impacts of air pollution in Central Texas, the CAPCOG Clean Air Coalition attributed the vast majority of health impacts to fine particulate matter or PM_{2.5}:⁸

Figure 1. Estimated Monetized Impacts of Regional Emissions of NO_x, SO₂, and PM_{2.5}



B. PM impacts in Houston by 2040

In a study comparing the impacts of various transportation electrification scenarios in the year 2040,⁹ researchers at the University of Houston calculated the following health impacts of ozone and particulate matter:



⁸ Hoekzema, Andrew, “CAC Meeting 8/12/2020 Item 6: Consider Participation in EPA’s Particulate Matter Advance Program” CAPCOG Clean Air Coalition (3 Aug. 2020).

⁹ Choi, Yunsoo et. al., “Evaluation of the air quality impacts of clean combustion technologies, emissions controls and fleet electrification in the Houston Metropolitan Area for the year 2040” (October 2018) available at <https://www.citizen.org/wp-content/uploads/migration/public-citizen-air-quality-transportation-houston-report-october-2018.pdf>.



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The studies shows that an aggressive electrification approach (AE) brings approximately \$100 million in health benefits from ozone reduction in the year 2040 and roughly \$1.5 billion in PM health benefits. The Business as Usual (BAU) case offerd negligible health impacts from ozone and \$1 billion in negative health consequences for particulate matter.

II. Best Management Practices for the Aggregates Industry

Public Citizen submitted an extensive list of industry best practices in comments to the House Interim Committee on Aggregate Production Operations. The following is an abbreviated list of best management we recommend be considered as means to reduce fine particulate matter at aggregate production operations:

- Traffic routes to minimize travel distance and exposure to residential areas.
- Speed limits of 5 mph on unsurfaced site roads and 10 mph on properly surfaced and maintained site roads.
- Covering vehicles carrying loose material.
- Use of road sweepers to ensure that road movements do not give rise to mud or materials on the roads.
- Wheel washing facilities.
- Road edges and pathways swept by hand and damped down as necessary.
- Park vehicles and maintain equipment in the same locations, to help locate spills and leaks.
- Regulate the loading rate of materials (loading more slowly may reduce dust emissions).
- Regulate the loading sequence of materials.
- Develop and post procedures for delivery and off-loading of aggregate.
- Roof and enclose truck loading bays.
- Install dust control equipment at loading bays.
- Underground or covered transfer for coarse and fine aggregates.
- Dust suppression with water spray on plant roadways and yard.
- Pave roadways and necessary process areas.
- Sweep paved areas with vacuum sweeper or mist paved areas.
- Use chlorides or other dust control chemicals on unpaved process areas where allowed.
- Add vegetative cover on non-paved plant grounds.
- Cover conveyor belts.
- Drive-over hoppers.
- Underground aggregate bunkers.
- Enclose aggregate stockpiles in bins
- Prevent enclosed stockpiles from exceeding the height of bins.
- Sprinkle coarse and lightweight aggregate stockpiles.
- Use of water sprays to damp down dry/dusty working areas as required.
- Suppression activity to be increased during dry and/or windy periods.
- Use of hoardings and/or sheeting of stockpiles to reduce dust migration.



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- Deliveries of dusty materials to be sprayed with water.
- Dampen materials being delivered to control dust.
- Shield stockpiles from the wind or store them in bins.
- Enclose or cover conveyors and fit them with belt cleaners.
- Clean up spilt material immediately to prevent contamination of waterways.
- Review and monitoring of potential dust sources and control & mitigation measures undertaken on a regular basis, both on and off site to ensure no migration of dust. Monitoring to check for visible signs of dust emissions and deposition.
- Regular reviews of mitigation methodology to be undertaken by Environmental Manager and Project Manager for site.

These are among the control strategies we recommend be considered by the TCEQ when developing best management practices.

III. Implementation and enforcement of best management practices.

HB 767 is a good first step—it requires TCEQ to develop best management practices and to publish them on its website. We recommend clear timelines for implementation of BMPs at new and existing facilities. We also recommend eventual enforcement of BMPs by TCEQ. We see HB 767 as the first step toward implementing BMPs at aggregate production operations.

We support HB 767 because it directs TCEQ to develop best management practices for aggregate production operations.

Thank you for the opportunity to provide this testimony. If you would like to discuss our position further, I can be reached at ashelley@citizen.org, 512-477-1155.

Respectfully,

Adrian Shelley
Texas Office Director
Public Citizen

CC: Rep. Alex Dominguez,
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