CITY OF ALBUQUERQUE

Environmental Health Department
Ryan C. Mast, Director

October 26, 2020

RE: Air Quality Permit No. 3340-RMD ~ New Mexico Terminal Services, LLC – Construction Permit – 9615 Broadway Blvd. SE

Environmental Health Dept.

Air Quality Program

PO Box 1293

Albuquerque, NM 87103

www.cabq.gov

Dear Interested Person:

Thank you for your interest in the permit application process for the proposed New Mexico Terminal Services, LLC facility. New Mexico Terminal Services, LLC. submitted an application for a new air quality construction permit to the Air Quality Program of the City of Albuquerque Environment Health Department. New Mexico Terminal Services, LLC. is requesting to construct and operate a 400 tons per hour (tph) hot mix asphalt plant with 133 tph railcar unloading and truck loading operations and 140 tph aggregate and recycled asphalt pavement products handling. The applicant is proposing an hourly production limit of 400 tons, seasonal daily operating throughput ranging from 3,200 tons during the winter months to 4,800 tons during the summer and fall, and an annual operating throughput of 800,000 tons. The new permit is identified as No. 3340-RMD.

The Air Quality Program evaluated all of the information submitted relating to the application. The Air Quality Program concluded that it met all applicable legal requirements, including those of the Clean Air Act, the New Mexico Air Quality Control Air (Air Act), the City and the County Joint Air Quality Control Board Ordinances, and applicable Albuquerque – Bernalillo County Air Quality Control Board (Air Board) regulations. The Air Quality Program determined that, if the facility is operated as required, it would comply with all air quality requirements and there was no legal basis to deny the permit application.

The Air Act imposes limits on permit denials and conditions. A construction permit may only be denied if the construction (1) will not meet applicable standards and regulations of the Clean Air Act, the Air Act and the Air Board's Regulations; (2) will cause or contribute to air contaminant levels in excess of any applicable ambient air quality standard; or (3) will violate any other provision of the Air Act or the Clean Air Act. NMSA 1978, § 74-2-7(C)(1). None of the information submitted demonstrated that any of those denial criteria would be met.

The Air Act also limits conditions requiring the use of certain technology and those imposing emission limits. The Air Quality Program's authority must be exercised within these legal constraints and Permit No. 3340-RMD meets those constraints.

Pursuant to the Air Act, NMSA 1978, § 74-2-7(H), any person who participated in a permitting action and who is adversely affected by it may file a petition for a hearing before the Air Board. The regulations for that process may be found at 20.11.81 NMAC, *see* http://164.64.110.134/parts/title20/20.011.0081.html. Compliance with those regulations is required. The petition must be submitted in writing to the Air Board in care of Ryan C. Mast, Director of the Environmental Health Department, to the following address within thirty (30) days from the date notice is given of the action:

Albuquerque – Bernalillo County
Air Quality Control Board
Attention: Ryan C. Mast, Director
Environmental Health Department
Air Quality Program
PO Box 1293
Albuquerque, NM 87103

Unless a timely petition for a hearing is received, the decision of the Air Quality Program shall be final.

Please note that Subsection C of 20.11.2.22 NMAC, "Board hearing filing fees," provides: "Every person who requests a hearing before the board shall pay a filing fee of $125.00, which shall be delivered to the board hearing clerk with the petition or other document that requests a hearing before the board." 20.11.2.22(C) NMAC. At the hearing, the burden of proof is on a petitioner to demonstrate whether a source will or will not meet applicable air pollution standards and regulations. NMSA 1978, § 74-2-7(K, L).

Further information about the Air Quality Program's decision and information about certain concerns which were raised during the permitting process are addressed in the Attachment to this letter. If you have any questions concerning the permit or the permitting process, please contact Isreal Tavarez at (505) 228-9754 or at itavarez@cabq.gov.

Regards,

Isreal L. Tavarez

Isreal L. Tavarez, P.E.
Environmental Health Manager
Permitting Division
Air Quality Program
Albuquerque Environmental Health Department

Enclosure: Attachment to Notification Letter

cc: File
Ryan C. Mast, Director, Environmental Health Department
Mara Elana Burstein, Deputy Director, EHD
Dario Rocha, Manager, Control Strategies Division, EHD

ATTACHMENT
Public Participation Notification Letter
for New Mexico Terminal Services Permit Application #3340-RMD

I. Application Processing Overview

Phase 1

On February 23, 2018, New Mexico Terminal Services, LLC (NMTS) submitted an application to the Air Quality Program (Program) for a new air quality construction permit to construct and operate a hot mix asphalt plant (HMA), a railcar unloading terminal, truck loading operations, and aggregate and recycled asphalt pavement (RAP) products handling facility. All of these activities collectively are referred to below as the "Facility." The Program issued that permit on September 19, 2018 and a petition challenging that permit was filed with the Albuquerque-Bernalillo County Air Quality Control Board (Air Board) on October 26, 2018.[1] The Program filed an unopposed motion to remand the permit back to the Program because, in preparing the Administrative Record, the Program realized that it had not published notice for the Public Information Hearing (PIH) in the newspaper as required. The Air Board granted that motion on February 22, 2019.

Phase 2

The Program held a properly noticed PIH for the remanded permit on July 24, 2019. On October 26, 2020 the Program issued the permit**.**

II. Detailed Description of the Application Processing

1. Submission of the Application and Public Participation

The public participation process for the NMTS Permit Applications #3340 and 3340-RMD (NMTS Permit Application) included the following activities:

Public Notice by the Applicant – February 15, 2018

- NMTS provided public notice on the application to the designated representative(s) of the recognized neighborhood associations and recognized coalitions that are within one-half mile of the exterior boundaries of the property.
- NMTS posted at the site the Proposed Air Quality Construction Permit Sign that was provided by the Program. The sign was posted prior of submitting the application to the Program. The Program informed NMTS to keep the sign posted until a decision on this application is made.

[1] The Program's notice that the permit had been issued was dated September 27, 2018, so the petition was filed within the required thirty days. *See* NMSA 1978, § 74-2-7(H).

Application

February 23, 2018:

- NMTS submitted an application to the Program for a new air quality construction permit.

March 23, 2018:

- The Program determined that the application was administratively complete.

Initial Public Notice by Department – March 27-28, 2018

The Program published the public notice (in English and Spanish) on the Program's website established for this application. The Program also posted the complete application at the same website. These documents were also available for public inspection at the Program's offices.

The Program sent the same public notice (in English and Spanish) to the designated representative(s) of the recognized neighborhood associations and recognized coalitions that are within one-half mile of the exterior boundaries of the Facility.

The Program sent the same public notice (in English and Spanish) to the State of New Mexico Environment Department, to EPA Region VI, City of Albuquerque (City) and Bernalillo County Administrations.

The Program called the Pueblo of Isleta (POI) and inquired where notice should be sent. The Program was told to send it to Mark Dixon, Natural Resources Liaison and Acting Director for the Livestock Board at the POI. The Program sent notice to Mr. Dixon.

Request for Public Information Hearing – April 10, 2018

The Program received a request for a PIH from Nora Garcia, President, Mountain View Neighborhood Association. The Environmental Health Department (Department) Director found that Ms. Garcia's request showed significant public interest about a significant air quality issue and granted the request.

The Program's Notice of the Availability of Its Technical Analysis—July 20, 2018

The Program issued notice of the availability of the Program's technical analysis (Technical Analysis). The Technical Analysis was available at the Program's offices and it was also posted on the Program's website.

The Program sent notice of the availability of the Technical Analysis to the designated representative(s) of the recognized neighborhood associations and recognized coalitions that are within one-half mile of the exterior boundaries of the Facility, including Nora Garcia, President, Mountain View Neighborhood Association.

First Public Information Hearing—held August 30, 2018

July 20, 2018:

- The Program sent the PIH public notice, in English and in Spanish, to the designated representative(s) of the recognized neighborhood associations and recognized coalitions that are within one-half mile of the exterior boundaries of the Facility. The Program also sent the PIH public notice to the applicant and his consultant, to the Director of the EPA's External Civil Rights Compliance Office, and to Nora Garcia who had requested the PIH.

- The Program published the PIH public notice, in English and in Spanish, on the Program's website.

August 30, 2018:

- The Program held the First PIH for the NMTS Permit Application at the Mountain View Community Center. The Program provided a Spanish interpreter. Mr. Lauro Silva, a member of the Mountain View Neighborhood Association, submitted the "EPA-454/R-00-019 (December 2000) – "Hot Mix Asphalt Plants Emission Assessment Report."

September 14, 2018:

- The Program kept the administrative record open until September 14, 2018 to allow the public to submit additional comments on the application. Mrs. Esther Abeyta, a resident of San Jose Neighborhood, submitted public comments by email on September 13, 2018.

Permit Issuance, September 19, 2018; and Remand, February 22, 2019

- The Program issued Permit No. 3340 to New Mexico Terminal Services, LLC on September 19, 2018.
- On February 22, 2019, in response to the Program's remand request, the Air Board remanded the permit back to the Program because the Program had not published the public notice for the public information hearing in the newspaper as required by 20.11.41.15(B)(6) NMAC.

Second Public Information Hearing—held April 24, 2019

March 20-24, 2019:

- On March 20, 2019, the Program published the public notice for the second public information hearing (Second PIH), in English and in Spanish, on the Program's website.
- On March 22, 2019, the Program sent public notice for the Second PIH to: designated representative(s) of the recognized neighborhood associations and recognized coalitions that are within one-half mile of the exterior boundaries of the Facility, and any persons who participated in the First PIH.
- On March 24, 2019, the Program published the public notice for the Second PIH in the Albuquerque Journal in English and in Spanish.

April 24, 2019:

- Mr. Eric Jantz, Staff Attorney for the New Mexico Environmental Law Center (NMELC), submitted written comments on the NMTS Permit Application on behalf of the Mountain View Neighborhood Association.
- The Program held the Second PIH for the NMTS Permit Application at the Mountain View Community Center. The Program provided a Spanish interpreter.

May 3, 2019:

- Mrs. Esther Abeyta submitted comments on the NMTS Permit Application to the Program.
- Mrs. Jennifer Owen-White, Refuge Manager for the Valle de Oro National Wildlife Refuge, submitted comments on the NMTS Permit Application to the Program on behalf of the Fish and Wildlife Service of the United States Department of Interior.

May 8, 2019:

- During the May 2019 Air Board Meeting, Mrs. Abeyta stated that the public notice published in the newspaper for the Second PIH contained an erroneous day of the week for the Second PIH (e.g. "Thursday April 24, 2019" when April 24 was a Wednesday).

Third Public Information Hearing—held July 24, 2019

May 26, 2019:

- The Program published the public notice in English and in Spanish for the third public information hearing (Third PIH) on the Program's website.
- The Program published public notice for the Third PIH in the Albuquerque Journal in English and in Spanish.
- The Program sent the public notice for the Third PIH to designated representative(s) of the recognized neighborhood associations and recognized coalitions that are within one-half mile of the exterior boundaries of the Facility; to persons who participated in the First or Second PIHs (including Nora Garcia, President, Mountain View Neighborhood Association); and to every person that had submitted a written request using the "Request Electronic Notification of Stationary Sources Permit Applications" link available at the Program's website.
- The Third PIH had to be rescheduled for July 24, 2019 (Rescheduled Third PIH) due to printing errors in the Albuquerque Journal public notice.

June 21, 2019:

- The Program published the public notice in English and Spanish for the Rescheduled Third PIH on the Program's website.
- The Program published public notice for the Rescheduled Third PIH in the Albuquerque Journal in English and in Spanish.
- The Program sent public notice for the Rescheduled Third PIH to designated representative(s) of the recognized neighborhood associations and recognized coalitions that are within one-half mile of the exterior boundaries of the Facility; to persons who participated in the First and Second PIHs (including Nora Garcia, President, Mountain View Neighborhood Association); and to every person that submitted a written request using the "Request Electronic Notification of Stationary Sources Permit Applications" link available at the Program's website.

July 23, 2019:

- Mr. Joel Young (Hearing Office for the Rescheduled Third PIH) and Ms. Carol Parker (Attorney with the City), received an email from Ms. Kendra Palmer, Paralegal for NMELC. The email included a letter signed by Mr. Eric Jantz, Staff Attorney for NMELC. The letter provided comments on the NMTS Permit Application on behalf of the Mountain View Neighborhood Association.

July 24, 2019:

- The Program held the Rescheduled Third PIH for the NMTS Permit Application at the Mountain View Community Center. The Program provided a Spanish interpreter.

July 30, 2019:

- The Program received an email from Aryn LaBrake, Executive Director for Friends of Valle de Oro, inquiring if she could submit comments on the application.
- Ms. Regan Eyerman, Environmental Scientist with the Program, replied to Ms. LaBrake, indicating that the deadline for submitting comments on the application was August 2, 2019.

August 1, 2019:

- Ms. Regan Eyerman received a phone call from Ms. Ramona Montoya, Environmental Specialist for the POI Environment Department, indicating that the POI did not receive the notice for the Third PIH.

August 2, 2019:

- Ms. Carina Munoz-Dyer, Environmental Supervisor with Program, contacted Ms. Montoya regarding her inquiry. Ms. Munoz-Dyer explained that all the public notices on this application had been sent to Mr. Mark Dixon with the Pueblo of Isleta. Ms. Munoz-Dyer also mentioned that the Program was willing to meet with her regarding this permitting action and/or the permitting process.
- Mr. Lauro Silva submitted comments regarding the NMTS Permit Application. Mr. Silva also tried to submit a file to the Program, but as the result of technical difficulties, it was not delivered to the Program.
- Mr. Eric Jantz, with the NMELC submitted supplemental comments to the Program on behalf of the Mountain View Neighborhood Association.
- Mr. Ruben Lucero, with the POI, contacted the Program indicating that the day before someone from the Mountain View Community had contacted him regarding the NMTS application and that that was the first time the POI had become aware of this permit application.

August 5, 2019:

- Mr. Isreal Tavarez, Manager for the Permitting Division of the Program, emailed Mr. Lucero providing copies of the public notifications that had been sent to the POI, a link to access the NMTS Permit Application, and stated that he would extend the deadline until August 13, 2019 to submit comments on this application.

August 8 and 19, 2019:

- Ms. Eyerman reached out to Mr. Silva regarding the undelivered document but did not receive a response.

August 23, 2019:

- Mr. Tavarez emailed Mr. Lucero apologizing because he did not verify his address following the automated response generated by the POI's email system for the email sent on August 5, 2019, and that the Program would extend the deadline for comment until August 29, 2019.

August 27, 2019

- Ms. Eyerman emailed Ms. Montoya and included the email that Mr. Tavarez sent to Mr. Lucero on August 23, 2019 indicating that the deadline for comment was extended until August 29, 2019.
- Ms. Montoya called Mr. Tavarez and left a voicemail asking for more time to review the application and agreeing to meet with the Program. She followed up with an email with the same information.

August 30, 2019:

- Mr. Tavarez replied to Ms. Montoya accepting a meeting with the POI for September 20, 2019 at 9:30 am.

September 20, 2019:

- Staff of the Program met with representatives of the POI, including Governor Max Zuni, at a POI facility to go over the permitting process, the permit application and the POI's concerns. The POI requested an extension to submit their comments on the NMTS Permit Application. Ms. Jolene Slowen, Deputy Director of EHD extended the deadline for comment until October 11, 2019.

October 11, 2019:

- The Program received a Protest and Comments Letter from the POI, which had several questions and comments regarding the application.

October 25, 2019:

- The Program sent a Request for Additional Information in response to the POI's Protest and Comments letter received on October 11, 2019. The Request for Additional Information addressed some of the comments and it also requested clarification or additional information for some of the comments and statements made in the POI's Protest and Comment Letter.

November 22, 2019:

- The Program received a response from the POI regarding the Program's Request for Additional Information sent by the Program on October 25, 2019.

III. Final Decision and the Program's Review and Responses to Comments from the Community

During the public participation process, the Program received several comments concerning the NMTS Permit Application. The Program reviewed and addressed these comments as described below.

1. Application Legibility

Ms. Abeyta raised a concern about the legibility of the application posted on the Program's website. Ms. Abeyta raised her concern about the application's legibility in comments emailed to the Program on September 13, 2018, the day before the deadline of Friday, September, 14, 2018 for submittal of comments to be submitted for August 30, 2018 public information hearing record which was the 1st public information hearing. The Program reviewed the application posted on the Program's website to evaluate Ms. Abeyta's concern about the legibility of the application. The Program's review of the document determined the pdf file posted on the Program's website did contain pages which had maps, photos and highlighted text that were completely or partially illegible.

As a result of the petition filed with the Albuquerque Bernalillo County Air Quality Control Board regarding the Department's decision to issue air quality construction permit #3340 the Program was required to compile the administrative record. During the Program's compilation of the administrative record the hard copy version of the application and the electronic pdf version of the application were updated on November 12, 2018 to replace the pages of the application which were illegible with pages which were legible. The electronic pdf file posted on the Program's website on March 27, 2018 which contained the illegible pages was a 7,690 kilobyte (KB) Adobe Acrobat Document pdf file and was replaced on the Program's website as of November 20, 2018 with the updated electronic pdf version file which is a 6,919 KB Adobe Acrobat pdf file. The replacement pdf file remains on the Program's website to the Present.

The updated electronic file of the application with legible pages has remained posted on the Program's website since November 20, 2018 until Present. The updated electronic file of the application was available for public review when the Program evaluated the NMTS permit application remanded back to the Program by the Air Board. The updated electronic file of the application with legible pages was available on the Program's website when the public notices were sent out for the 2nd and 3rd public information hearings.

2. Differences between the public notice and the application.

Mrs. Abeyta raised questions regarding differences between the emission information in the application versus the emissions information in the public notice. The application has more extensive emission information than the information provided in the public notice. The public notice contains only the emissions that would be allowed (the "controlled emissions") if the application were granted. The additional information that is available in the application (but which was not in the public notice) were the pre-controlled. The "pre-controlled" emissions are those that would result if no air quality protection were provided. The pre-controlled emissions are much higher because the controlled emissions table includes the effect of the required emission controls.

For example, Table B-3 in the application showed an estimated pre-controlled emission rate of 232.2 tons per year (tpy) of Carbon Monoxide (CO). After required control measures were applied, the estimated maximum controlled emission rate of CO drops to 54.1 tpy. The latter number was provided in the public notice because the table states, "The Program estimates that the maximum **allowable** emissions from this proposed Facility would be:…[CO 54.1 tpy for CO] [emphasis added]." Since the public notice table provides the allowable emissions, it was appropriate to use the CO emissions after control measures were applied. Those are the maximum CO emissions actually expected from and permitted from this Facility. *See* 20.11.41.13(C)(4)(requiring the applicant's notice to include "a preliminary estimate of the maximum quantities of each regulated air contaminant the source will emit if the permit is issued; 20.11.41.14(B)(2)(d) NMAC (requiring the Department's notice to provide the proposed emissions); *and* 20.11.41.15(B)(5) NMAC (requiring the public notice for a PIH to include emissions information as required for the applicant's notice, among other things).

3. Dust Control

Some members of the public raised questions about dust control at the Facility. The permit requires dust emissions be controlled by:

- limits placed on the hourly, daily and annual for both asphalt production and RAP throughput,
- requiring the use of baghouses with a 99.9% control efficiency to contain dust from the lime silo and the use of a baghouse with a 99.8% control efficiency for the drum dryer,
- limits placed on the hourly and daily amount of aggregate allowed for the railcar unloading operations;
- requiring wet suppression to reduce fugitive dust emissions from screening and conveying operations, and from storage piles; and
- applying wet suppression on a sufficient basis to prevent fugitive dust from active stock piles from leaving the property.

In addition, fugitive emissions from the haul roads will be controlled by:

- paving roads entering and exiting the facility, and requiring the use of watering and/or using dust suppressant on unpaved roads

The Program added conditions to the permit in response to public comments regarding fugitive dust.

- The permittee must enroll in the Program's system to receive electronic notices of city-issued shut down notices due to high wind events. As a result of shutdown notice, the permittee must:
    - shut down the Facility as soon as practicable upon receiving such notices,
    - record the date and time of shut downs due to high wind events,
    - monitor the site daily for the potential for fugitive dust issues,
    - document the results of daily monitoring, and

- monitor and keep records of water application to control fugitive dust.

4. Potential Fires

One member of the public voiced a concern about the substances at the site and their potential for fires. The oils that will be stored on site are combustible but not flammable. The aggregate piles, which would make up the majority of the materials stored at the facility, are not flammable. Any process equipment has the potential to catch fire but such fires are not common. NMTS would try to prevent fires, as it would not be in the best interest of the personnel and operations at the facility. In addition, the facility will be equipped with a one million-gallon storage tank for water as well as a fire hydrant connected to the Albuquerque-Bernalillo County Water Utility water system.

5. Process Equipment

The Program received comments about the permitting of equipment "TBD," i.e., "to be determined." Equipment at the Facility may be new or used. The permit requires the Facility to report the manufacturer, model number, and manufacturer date to the Program within thirty days of equipment installation. Each piece of equipment chosen is subject to limitations, for example, a process rate, a control efficiency or an emission limit. As a result of these limitations, it does not matter what brand equipment is used or whether the equipment is used or new, provided that it does not exceed the limitations imposed in the permit. The throughput and hours of operation will also be required to be monitored and recorded daily.

6. Fuel Oil

During the public participation, a concern was raised regarding NMTS's proposed combustion of "waste oil" in Emission Unit No. 22. In response to this concern, the Program conducted further evaluation, and determined that NMTS would not be using "waste oil." Instead, the permit authorizes NMTS to use "on-specification used oil" or natural gas/propane as fuel. The "on-specification used oil" will have to meet the specifications listed in 40 CFR 279.11 – Standards for Management of Used Oil.

7. Truck Traffic

<u>Emissions from mobile sources</u>

A "stationary source" permit evaluates the emissions expected from the operation of the stationary source(s) at a facility. Those expected emissions are added to background concentrations of pollutants to determine whether the source, as proposed, will protect air quality in accordance with the National Ambient Air Quality Standards. Emissions from mobile sources such as trucks are not controlled through the stationary source permitting process. Such sources are controlled by applicable federal standards imposed for mobile source engines, including cars, trucks, non-road engines, etc. Those emissions are captured by the background emissions monitored by the Program's ambient air quality monitoring network.

<u>On-site haul road emissions</u>

The permit requires the operator to limit fugitive dust generated from the haul roads within the property boundary by compliance with several permit conditions. The permit requires the entrance and exit haul roads be paved. These are the roads that will have the highest traffic and where the generation of haul road emissions would be the highest if the roads were not paved. Closer to the center of the facility, the fugitive dust from the haul roads will be controlled by the application of surfactants and/or millings and watering.

As explained previously, fugitive emissions from the haul roads will be controlled by paving roads entering and exiting the facility. In addition, the unpaved roads will be subject to the following conditions:

- using dust suppressants applied in amounts, frequency and rates recommended by the manufacturer and maintained as recommended by the manufacturer, and
- using wet suppression and millings.

8. Facility Records

During the First PIH, Mr. Lauro Silva raised concerns about public access to inspection records, asked how inspectors review records for accuracy, questioned the appropriateness of relying on records generated by the regulated source and inquired on the requirements for recordkeeping. Inspection records are available to the public by requesting them pursuant to the Inspection of Public Records Act. Records obtained by Program inspectors when they conduct inspections at a site are reviewed for accuracy and inclusion of any elements required by the permit, and inspectors may bring copies of such records back for the Program's files.

Any member of the public who believes that there may be a compliance issue at a facility (for example, due to blowing dust across the property boundary) should notify the City's 311 system and provide any relevant information including any available photos so that the Program can investigate further. The Program inspectors follow a policy of "trust but verify." That means that records may periodically be checked against other sources of information.

With regard to reliance on a permittee's records, if a permittee knowingly fabricates records or information from monitoring devices, such actions can be criminally prosecuted under both state and federal law. Under state law, upon conviction, a permittee would be subject to a $10,000 fine per day of violation and up to twelve months in jail. NMSA 1978, § 74-2-14(F). In addition, knowingly and willfully creating materially false records on a matter within the jurisdiction of a federal agency (such as the Environmental Protection Agency) can be prosecuted as a federal felony. The Program operates through delegated authority from the (EPA; therefore, if the permittee knowingly and willfully provided false statements to the Program on matters relating to compliance with federal requirements, the permittee could be federally prosecuted. *See U.S. v. Wright*, 988 F.2d 1036, 1039 (10th Cir. 1993); and *U.S. v. Louisiana Pacific Corp.*, 925 F.Supp. 1484 (D. Colorado 1996). In light of these potential sanctions, it is not likely that most permittees would knowingly fabricate records.

9. Odor Control

The Air Board does not have any regulations regarding odor control.

Odors can be caused by hydrogen sulfide (H_2S). The modeling section investigated the ambient impacts of H_2S emissions.

The H_2S emissions were calculated at 44 lb/year. A H_2S emission rate about 4 times higher than the 44 lb/year was input to AERMOD as a safety factor. Specifically, an H_2S emission rate of 0.0219 lb/hr was used with the Baghouse Stack emission point. Using 5 years of meteorological data, the maximum hourly impact was 0.17 µg/m3. The level of the New Mexico Ambient Air Quality Standard for H_2S is 13.9 $\mu g/m^3$ per the New Mexico Environment Department's (NMED) Air Dispersion Modeling Guidelines. The significance level for modeled H_2S impacts is 1.0 $\mu g/m^3$. In other words, an emission rate 4 times higher than calculated for the plant produced a maximum impact 5 times lower than the significance level for impacts and more than 50 times lower than the level of the standard.

10. Cumulative Impacts

During the public participation process, the Program received various questions regarding cumulative impacts. The Program evaluates the proposed application and proposed activities, to determine what requirements would apply to that activity to protect air quality.

It is not likely that cumulative impacts would result from criteria pollutants. If the emissions from a proposed new source combined with the emissions from existing sources would exceed air quality standards, then an applicant must propose a lower level of activity, accept tighter emission controls on the activity, or find another location. The requirement to conduct modeling for most criteria pollutants limits the potential for cumulative impacts.

Some participants have raised concerns about neighborhoods becoming overburdened with permitted facilities. The air dispersion modeling addresses the cumulative impact of the criteria air pollutants to assure that this does not happen. The nature of the activities to be conducted at the Facility required NMTS to submit an air dispersion modeling analysis to demonstrate compliance with all health-based ambient air quality standards for carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), total suspended particulate matter (TSP), coarse particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$). Even though TSP was in the model the EPA approved the repeal of the New Mexico Environment Department (NMED) TSP standard in April 2019 so emissions limits for TSP are not in Permit #3340-RMD. Hydrogen sulfide, a component of odors, was not included in the model as the EPA has determined its emissions from hot mix asphalt (HMA) plants are negligible.

Air Dispersion Modeling Evaluation of Ambient Air Quality Standards

Air dispersion models evaluate the expected impact to air quality (e.g., the National Ambient Air Quality Standards for CO, NO_2, SO_2, PM_{10}, and $PM_{2.5}$) as a result of the proposed emissions at the Facility when combined with existing activities and the existing background level of air contaminants. Thus, air dispersion modeling is a form of cumulative impacts analysis.

The Program reviewed the air dispersion modeling analysis submitted with the NMTS application. The Program concluded that the emissions from the proposed activities by NMTS are not expected to exceed health-based ambient air quality standards for CO, NO_2, SO_2, PM_{10}, and $PM_{2.5}$ when combined with background levels of air contaminants and other nearby sources such as NMTS Transloading Facility, New Mexico Aggregates, and Western Organics.

The modeling section investigated the ambient impacts of both H_2S and Lead (Pb) emissions.

The H_2S emissions were calculated at 44 lb/year. A H_2S emission rate about 4 times higher than the 44 lb/year was input to AERMOD as a safety factor. Specifically, an H_2S emission rate of 0.0219 lb/hr was used with the Baghouse Stack emission point. Using 5 years of meteorological data, the maximum hourly impact was 0.17 $\mu g/m^3$. The level of the New Mexico Ambient Air Quality Standard for H_2S is 13.9 $\mu g/m^3$ per the New Mexico Environment Department's (NMED) Air Dispersion Modeling Guidelines. The significance level for modeled H_2S impacts is 1.0 $\mu g/m^3$. In other words, an emission rate 4 times higher than calculated for the plant produced a maximum impact 5 times lower than the significance level for impacts and more than 50 times lower than the level of the standard.

A Pb emission rate of 0.006 lb/hr was calculated for burning used oil for the operation of the asphalt drum dryer. The level of the NAAQS for Pb is 0.15 $\mu g/m^3$ and the significance level for impacts is 0.03 $\mu g/m^3$. AERMOD was run, per NMED guidance on Pb modeling, with the 0.006 lb/hr emission rate. The maximum monthly average impact for both scenarios was 0.00161 $\mu g/m^3$ which is an order of magnitude below the significance level for Pb and two orders of magnitude below the level of the Pb NAAQS.

Cumulative Impacts from Hazardous Air Pollutants

Regarding cumulative impacts from hazardous air pollutants (HAP), the data that is available to EHD (described below) indicates that unacceptable cumulative impacts from HAP are not likely in Albuquerque-Bernalillo County for several reasons.

First, pursuant to Section 112 of the federal Clean Air Act, a source has to emit at least 10 tons per year of a single hazardous air pollutant (HAP) or at least 25 tons per year of all HAP combined to be a major source of HAP. Albuquerque-Bernalillo County has only one major source of HAP—the Albuquerque-Bernalillo County Water Utility Authority. Because Albuquerque-Bernalillo County does not have a substantial industrial economic base emitting major quantities of HAP, its stationary sources are smaller and have lower emissions of HAP making unacceptable cumulative impacts less likely than in urban areas that have a higher number of major HAP sources.

Second, the EPA has developed the National Air Toxics Assessment (NATA) to provide information about the cumulative impacts from HAP. In 2018, EPA released its 2014 National Air Toxics Assessment (NATA). See Fact Sheet at https://www.epa.gov/national-air-toxics-assessment/2014-nata-fact-sheet. NATA is a screening tool intended to help EPA and state, local and tribal air agencies determine which areas, pollutants or types of pollution sources need to be examined further to better understand risks to public health. NATA provides broad estimates of the risk of developing cancer and other serious health effects from HAP over census tracts across the country. It does not estimate any person's individual risk.

In any community, HAP may be emitted from a variety of sources, including mobile sources (cars, trains, planes, lawn mowers, construction equipment, etc.), stationary sources (government and industrial operations), individual residences (from heating and cooking activities), and natural sources (such as plants and trees). It is important to understand that even small sources (such as one's home or car) can attain significance when they are numerous. Any analysis of cumulative impacts must look at HAP from all of the above source categories, not one source category (such as stationary sources) in isolation. For Albuquerque-Bernalillo County, NATA indicates that cancer risks and non-cancer risks from HAP from stationary sources are well below levels, which would raise concerns about cumulative impacts.

Cancer Risks from HAP

According to NATA, the average cancer risk from HAP nationwide is 30 in one million. This average includes rural and urban census tracts from the lower forty-eight states. About half of the cancer risk nationally comes from formaldehyde which is produced when HAP and other pollutants react with each other in the air. This is known as secondary formation—it results from all emissions of HAP. HAP from many sources, large and small, interact to form formaldehyde which generally accounts for about half of the cancer risk nationwide from air pollution. The remaining half of nationwide cancer risk comes from HAP that are directly emitted to the air.

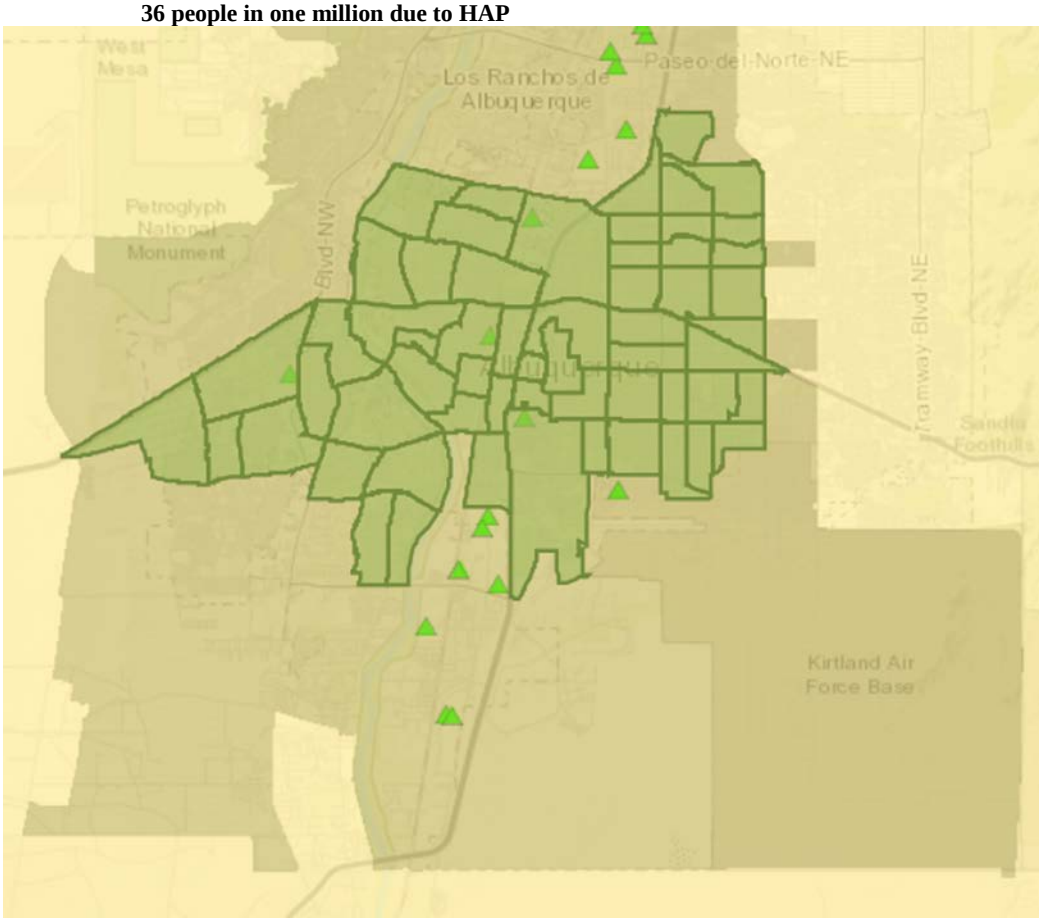
Although emissions of HAP have been declining, some local areas (less than 1% of all census tracts nationwide) face challenges. Industrial emissions of three pollutants, ethylene oxide, chloroprene and coke oven emissions contribute to most of the risk in these tracts. Albuquerque-Bernalillo County has no industrial sources permitted to emit chloroprene or coke oven emissions. It has one source that is permitted to emit ethylene oxide (the Veteran's Administration Hospital). As a result, Albuquerque-Bernalillo County has a lower risk profile for HAP emissions than jurisdictions with source authorized to emit these pollutants.

EPA has stated that when NATA shows a potential cancer risk of greater than 100 in a million in a census tract, it means there may be an elevated cancer risk in that tract from HAP. A risk level of 100 in a million

refers to the likelihood that 100 people in one million (1 in 10,000) people would develop cancer if they breathe air containing the same amount of the same air toxic for 70 years. To put NATA's numbers in perspective, the cancer risk from all causes (i.e., not just HAP) nationwide is 336,000 in one million—so a cancer risk of 100 in a million from HAP is small compared to the cancer risk from all other causes.

In Albuquerque-Bernalillo County, the average cancer risk from HAP is 27 in one million. That includes the urban center as well as outlying census tracts in the far western or far eastern areas of the county where there are fewer stationary sources, fewer roads and fewer residences to generate HAP emissions. Fifty-nine of the total of 159 Bernalillo County census tracts exceed the national average cancer risk of 30 in one million. Those census tracts center on the Big-I and have cancer risks ranging from 30 to 36 in one million. All of these are well below EPA's benchmark of 100 in one million. A map showing where those census tracts with risks from 30 to 36 in one million are located is provided in Figure 1 below. While these census tracts with risk ranging from 30 to 36 in one million exceed the national average, they are all well below EPA's acceptable risk level of 100 in a million and are typical of urban areas around the country.

Figure 1 – Map Showing All Bernalillo County Census Tracts with a Cancer Risk between 30 and 36 people in one million due to HAP



The census tract where NMTS is located is in Mountain View. That census tract is not among the census tracts identified in Figure 1. The Mountain View census tract (Tract 4001) has a total cancer risk of 26 in one million. This is lower than the Bernalillo County average of 27 in one million and lower than the national average of 30 in one million. NATA is a screening cumulative risk assessment. The information in NATA does not raise concerns about cumulative impacts from HAP where the NMTS activity would be located.

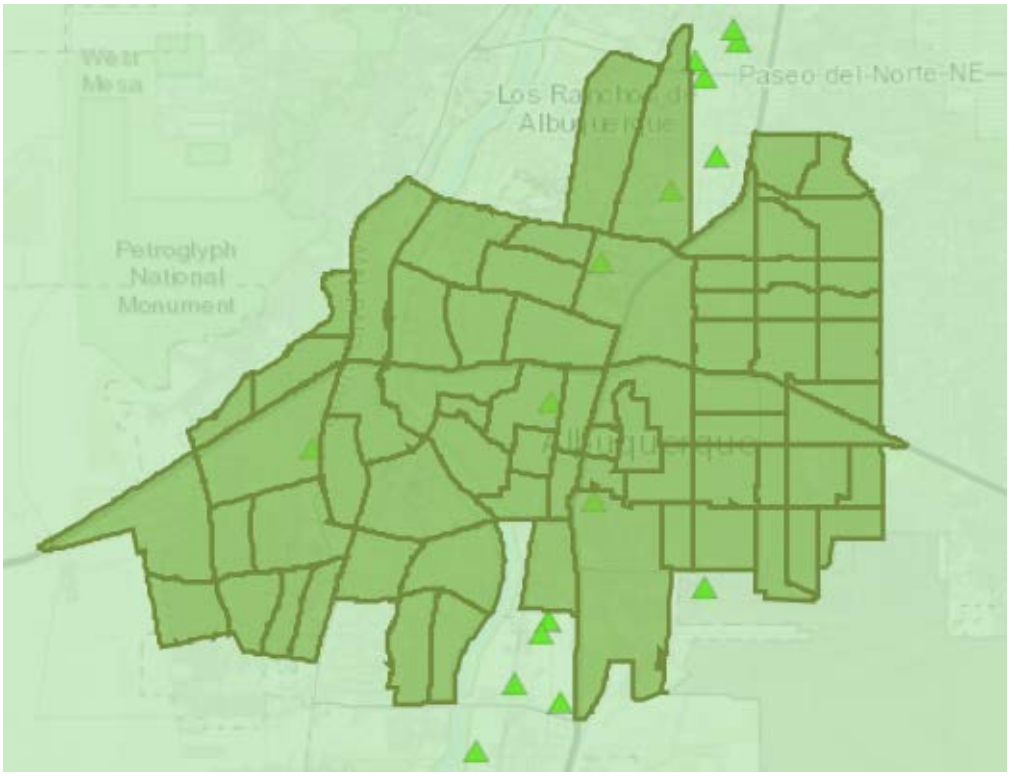
Non-Cancer Health Risks from HAP

To estimate non-cancer health impacts, EPA calculates what is known as a hazard index. A hazard index of 1 or lower means air toxics are unlikely to cause adverse noncancer health effects over a lifetime of exposure. Because the driver of noncancer impacts is the respiratory hazard index, EPA maps the respiratory hazard index for census tracts across the country. The respiratory hazard index for the nation overall is 0.44. This includes both rural and urban areas.

There are no census tracts in Bernalillo County that have a respiratory hazard index of 1 or more. The average county wide respiratory hazard index is 0.37 which is lower than the national average. The respiratory hazard index in all 159 of the Albuquerque-Bernalillo County census tracts are well below 1, so this NATA analysis would suggest that air toxics in Bernalillo County are unlikely to cause adverse noncancer health effects over a lifetime of exposure.

While all Albuquerque-Bernalillo County census tracts are below 1, the urban area has a higher respiratory hazard index than rural areas. Seventy census tracts (out of 159 total) located in the urban core of Bernalillo County have a respiratory hazard index between 0.4 and 0.6. These are higher than the county average but still well below 1. Those seventy urban census tracts are shown in Figure 2 below.

Figure 2 – Map Showing All Bernalillo County Census Tracts with a Respiratory Hazard Index between 0.4 and 0.6.



The census tract where NMTS is located is in Mountain View. That census tract is not among the urban census tracts identified in Figure 2. The Mountain View census tract (Tract 4001) has a respiratory hazard index of 0.35. This is lower than the Bernalillo County average of 0.37 and lower than the national average of 0.44. NATA is a screening cumulative risk assessment. The information in NATA does not raise concerns about cumulative impacts from HAP where the NMTS activity would be located.

11. Rail Line

The Program received questions about the NMTS's use of the rail line. The Program understands that aggregate material will be the only product delivered to the facility by rail, and all other products will be delivered to the facility by truck.

12. Water Runoff

The Program received questions about water runoff from the Facility. Runoff from the facility is not regulated by the air permit. Any questions or concerns about water runoff in Bernalillo County should be directed to the Stormwater Compliance Program with Bernalillo County Public Works at (505) 848-1544 or water@bernco.gov.

13. Environmental Justice/ Racism

Some commenters made comments regarding Environmental Justice during the public participation process. The EPA recommends that environmental regulatory agencies incorporate opportunities for meaningful public engagement during the permitting process.

As shown above, in this case, the Program provided multiple opportunities for public engagement throughout the NMTS application process. These opportunities have been described above.

14. Protection of Public Health

Various questions were asked about the protection of public health. As previously discussed in Item 10 – Cumulative Impacts, the Program concluded that all health based ambient air quality standards would be met. Compliance with the ambient air quality standards protects public health from cumulative impacts from criteria pollutants.

15. Land Use

Some commenters raised concerns regarding the land use of the NMTS property, contending that the zoning of the chosen property does not allow for a hot mix asphalt plant. The Program does not have authority over zoning decisions, noise issues, water pollution, traffic, etc. The Program reviews construction applications and, if all air quality legal requirements are met, the Program issues a permit for the operation of a facility. Air quality permits address protection of ambient air quality of the City and Bernalillo County. The Program does not address all of the other possible regulatory areas in which an applicant may require a permit (e.g., protecting water quality, occupational health and safety, building permits, proper waste handling, etc.).

The Bernalillo County Planning and Development Services handles land use matters in the unincorporated areas of Bernalillo County that are not Tribal Lands. Questions about land use should be referred to them at the contact information found here: https://www.bernco.gov/planning/planning.aspx .

16. Prevention of Significant Deterioration

The Program also received comments contending that the NMTS hot mix asphalt plant is a "major stationary source" under the Prevention of Significant Deterioration (PSD) regulation, 20.11.61 NMAC.

The PSD Regulations apply to **major stationary sources** or **major modifications** "as defined in 20.11.61 NMAC." This is a new permit, therefore, this application does not involve a major modification. Part 61 would only apply if the new source approved in Permit No. 3340 meets the definition of a "major stationary source" in Part 61.

The term "major stationary source" is defined in 20.11.61.7(KK) NMAC. In order to understand the definition of "major stationary source," it is essential to understand the phrase "potential to emit" which is used in that definition. The term "potential to emit" is defined in 20.11.61.7(SS) NMAC.

"Potential to emit" means [emphasis added]:

> The maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollutant control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design **if the limitations or the effect that the limitation would have on emissions is federally enforceable**.

Albuquerque—Bernalillo County has an EPA approved State Implementation Plan to implement the Prevention of Significant Deterioration program, as well as other Clean Air Act requirements. *See* 40 C.F.R. § 52.1620(c). The term "federally enforceable" includes, among other things, requirements within any state implementation plan; requirements developed pursuant to 40 C.F.R. Parts 60 (Standards of Performance for New Stationary Sources) and 61 (National Emissions Standards for Hazardous Air Pollutants); and any permit requirements established pursuant to 40 CFR Part 52.21. 20.11.61.7(AA) NMAC. As a result, when calculating the "potential to emit" for the NMTS facility, the permit conditions are applied. In other words, it is the "controlled" emissions, not the "uncontrolled" emissions, which determine a facility's potential to emit for the purposes of the Prevention of Significant Deterioration program.

Permit No. 3340-RMD imposes a number of limitations on the NMTS potential to emit which are federally enforceable. For example, in Table 1b Process Units 21 and 22 are required to operate with baghouses with 99%+ control efficiencies for particulate. Table 1c shows which Process Equipment must comply with the New Source Performance Standards which apply to Hot Mix Asphalt and Non-Metallic Mineral Processing facilities. Condition 1.Q. requires operation of Process Units 8 and 11 with an atomized water spray bar to assure compliance with federal ambient air quality standards for particulate. The aggregate effect of all of the limitations imposed in the permit is to reduce the potential to emit of criteria pollutants to the following annual amounts:

Nitrogen Oxides	23.7 tons per year
Carbon Monoxide	54.1 tons per year
Volatile Organic Compounds	20.3 tons per year
Sulfur Dioxide	23.6 tons per year
Particulate Matter (PM10)	15.5 tons per year
Particulate Matter (PM2.5)	10.7 tons per year

A source can be a "major stationary source" if it meets any one of three requirements:

(a) it is a source listed in Table 1 of 20.11.61.26 NMAC that emits or has a potential to emit of 100 tons per year of any regulated NSR pollutant;

(b) it is any stationary source that emits or has the potential to emit of 250 tons per year of any regulated NSR pollutant; or,

(c) any physical change that would occur at a stationary source not otherwise qualifying as a major stationary source, if the change would constitute a major stationary source by itself.

20.11.61.7(KK)(1) NMAC.

A regulated NSR pollutant means:

(1) any pollutant for which a National Ambient Air Quality Standard ("NAAQS") has been promulgated [i.e., nitrogen dioxide, carbon monoxide, lead, sulfur dioxide, ozone or particulate PM10 or PM2.5];

(2) any pollutant subject to a standard under Section 111 of the Clean Air Act;

(3) any class I or class I substance subject to a standard promulgated under or established by Title VI of the Act [Stratospheric Ozone Protection];

(4) any pollutant that otherwise is "subject to regulation" under the act as defined in 20.11.61.7(CCC) NMAC [pollutants which are subject to a Clean Air Provision or a nationally applicable regulation that requires actual control of the quantity of the emissions of that pollutant, among other things and subject to certain exceptions not relevant here];

(5) excluding any hazardous air pollutant [subject to certain exceptions not relevant here];

(6) particulate emissions including gaseous emissions which condense to form particulate matter at ambient temperatures [subject to certain exceptions not relevant here].

In this case, the NMTS Facility does not meet any of the above thresholds required to be a "major stationary source." This type of source is not listed in Table 1 of 20.11.61.26 NMAC and, even if it were, there are no emissions of any pollutant more than 100 tons per year. This source does not emit 250 tons per year of any regulated NSR pollutant. Finally, the change authorized by the permit does not entail a physical change which would be a major stationary source by itself. Therefore, the NMTS Facility is **not** a "major stationary source" under the Prevention of Significant Deterioration (PSD) regulation, 20.11.61 NMAC.

17. Owner's Criminal Record

Some commenters shared their concerns regarding Mr. Karl Pergola, who is identified in the application as the responsible official for NMTS and who is described in the application as a "Managing Member" of NMTS. This last summer, Mr. Pergola pled guilty and was convicted and sentenced for ten felony counts of tax fraud. Neither the Clean Air Act nor the state Air Quality Act address criminal convictions for non-air quality crimes. These laws do penalize certain criminal acts but they have to be related to the air quality activity at issue. No law requires that an application for a stationary source permit be denied for a conviction for tax fraud.

For example, Section 14 of the Air Quality Control Act imposes fourth degree felony penalties for certain knowing violations of air quality requirements. NMSA 1978, § 74-2-14(C) and (D). However, fraudulently failing to pay taxes which are due to the state is not a violation of an air quality requirement. Mr. Pergola's conviction for tax fraud does not create a legal basis to deny an application for an air quality permit to NMTS, for which Mr. Pergola is the Managing Member.

18. Air Quality Program Authority

During the public participation process, some commenters had questions regarding the Program's authority and jurisdiction. The Program has been designated by the EPA to ensure that Albuquerque-Bernalillo County maintain attainment with the federal National Ambient Air Quality Standards. EPA has also delegated authority to the Program to implement and enforce applicable federal HAP regulations in permits for stationary sources. No federal HAP regulations apply to the NMTS permit because the HAP emissions are low (4.2 tons per year). The Program has issued a permit to NMTS, which imposes all of the applicable requirements promulgated by the Air Board.

IV. Final Decision and the Program's Review and Responses to Comments from the Pueblo of Isleta

Summary of Communications Between the Pueblo of Isleta and the Program
The Program received two letters from the POI. The Protest and Comment Letter, was received on October 11, 2019 (POI First Letter) and a response to the Program's Request for Additional Information was received on November 22, 2019 (POI Second Letter).

POI First Letter

POI hired a contractor, Stone Lions Environmental Corporation (Stone Lions), to review the application from NMTS and the air dispersion modeling (ADM) conducted by Montrose Air Quality Services, LLC (Montrose) on behalf of the applicant. Stone Lions provided several statements and comments regarding Montrose ADM. The Program reviewed every statement and comments made by the Stone Lions and POI. As a result, the Program needed further explanation on some of the comments, and the rationale behind some of the statements and calculations. As a result, the Program responded to POI First Letter on October 25, 2019 asking for additional information (Program's Request for Additional Information).

POI Second Letter

Subsequently, on November 22, 2019 the Program received a response from the POI to the Program's Request for Additional Information. The response provided a response to each of the questions/items in the Request for Additional Information from the Program, and included 28 new items requesting additional information.

The following are comments presented by the POI.

1. Land Use and Zoning

Current and future development of the Pueblo of Isleta lands
The POI expressed concern regarding the location of the proposed Facility because their lands have been affected by the industrial and commercial land uses located to the north; and their future development plans will be affected by the close proximity of the proposed Facility.

2. Zoning and Special Permit

The POI expressed a concern because the property is currently zoned as an A-1 (Rural Agricultural Zone) and NMTS applied for a Special Use Permit in 2016 for an Industrial Park. The POI also stated that the proposed use and layout of the Special Use Application, and the approved development plan issued by the

Bernalillo County Planning Commission are very different from the proposed Facility in the air quality application.

PROGRAM'S RESPONSE
Comments and concerns on land use and zoning have been addressed in Section III, 15 – Land Use. Concerns about land use and zoning should be brought to the attention of the appropriate planning and zoning authority.

3. Mobile Sources

The POI commented that the proposed facility will cause dust and pollution from trucks and train traffic, and the POI has reservations regarding the Program's capability to ensure that fugitive dust emissions are minimal. Additionally, the POI suggested that the Program should take into account mobile sources when evaluating the air quality in the area, specifically in the adjoining property owners.

PROGRAM'S RESPONSE
Comments and concerns regarding emissions from mobile sources and haul roads have been addressed in Section III, 7– Truck Traffic.

4. Montrose Air Dispersion Modeling and Application

According to Stone Lions, Montrose's ADM is seriously flawed and made the following comments on NMTS application, Montrose's ADM, and the Program's review of this information:

Emission Factors
The POI stated that the emission factors used to calculate emissions do not accurately predict emissions from sources, specifically the AP-42 emission factor used to calculate the $PM_{2.5}$ emissions for Process Unit #22 (HMA Drum Dryer/Mixer), which Stone Lions said that it had "E" rating indicating that "the emission factor was developed from test data for which there may be reason to suspect that the facility tests from which the emission factor was derived do not represent a random sample of the industry."

PROGRAM'S RESPONSE
The applicant used the total PM_{10} emission factor from Table 11.1-3 with a fabric filter of 0.023 lb/ton with a rating of "C" and not "E" as mentioned by Stone Lions in the POI First Letter. The Program verified that this was the correct emission factor to be used. For Process Unit #22, the applicant assumed that the Total PM_{10}, which was calculated using the emission factor rated C of 0.023 lb/ton from Table 11.1-3 (03/04), consisted entirely of $PM_{2.5}$. This is a more simple approach because some of the particulate emissions consist of coarse and fine particulates. Assuming that all the particulate emissions consist of fine particulates was a more conservative assumption and the Program did not object to it. Therefore, it is fair to conclude that public health is protected if the air dispersion model shows that the $PM_{2.5}$ emissions did not exceed the NAAQS assuming that all the particulate emissions consists of entirely $PM_{2.5}$.

Stone Lions also stated that the $PM_{2.5}$ NAAQS would be exceeded at ten locations of the POI and calculated that the worst-case emission rate for $PM_{2.5}$ was 52 pound per hour (pph) and not the 9.2 pph as reported in the application.

PROGRAM'S RESPONSE

On October 25, 2019 the Program requested additional information regarding the 52 pph emission rate presented as the worst-case emission rate. The Program was unable to replicate this number and requested information of how this emission rate was derived and all the assumptions that were made.

The POI responded on November 22, 2019 and indicated that the 52 pph was derived from the AP-42 emission factors but did not provide clarification on how the hourly emission was calculated. Instead, it followed with a new comment requesting the City and Program provide what the worse-case scenario would be at the ten locations identified by the POI located within one-mile from the proposed facility.

Receptors Location

Stone Lions stated that the NAAQS for $PM_{2.5}$ was exceeded multiple times when they substituted the receptors in Montrose's ADM with ten different locations of interest to POI and gave each receptor a five-foot flagpole above ground surface.

PROGRAM'S RESPONSE

In the Request for Additional Information, the Program also asked to provide the rationale for using a five-foot height flagpole and any guidance or technical documentation used to support this approach. The Program asked for any models runs that the POI wishes the Program to consider in evaluating the application, along with all related model reports and files. In the POI Second Letter, the POI indicated that they chose a five-foot flagpole because that is the approximate height to the nose and mouth of a standing person.

However, this is not an appropriate reason to use flagpole receptors. Most clean air agencies require the use of ground-level receptors in regulatory air dispersion modeling. As requested by the Program in the Request for Additional Information to the POI, the Program needs a copy of the guidance, technical documentation, or a citation that recommends the use of a five-foot flagpole. An example of such citation is the use of flagpoles recommended by the NMED Air Quality Bureau when high concentration can be predicted at an elevated receptor: *"Elevated receptors should be placed on nearby buildings at points of public access where elevated concentrations may be predicted. Use flagpole receptors in areas with multi-story buildings to model state and federal standards. In cases where nearby buildings have publicly accessible balconies, rooftops, or similar areas, the applicant should consult with the Bureau modeling staff to ensure proper receptor placement. PSD increment receptors are limited to locations at ground level."*

AERMOD Outdated Version

Stone Lions has commented that Montrose ADM was conducted using an outdated version of AERMOD (16216r). Stone Lions stated that of the 107 runs executed by Montrose, 57 model runs were executed with the AERMOD version 16216r. Stone Lions commented that AERMOD version 16216r was correct version until March 21, 2018. On March 22, 2018 the EPA issued a new version of AERMOD, 18081. Stone Lions argues that the EPA releases updated versions of AERMOD to correct bus, make enhancements or improve algorithms in the AERMOD. Therefore, State Lions stated that the Montrose ADM is unreliable and it should be replaced with a new model using the correct version.

PROGRAM'S RESPONSE

Regarding the different version of AERMOD, the Program is aware that AERMOD is updated regularly, and as any other software, the effect of the updates on modeled ambient air impacts may range from zero to highly significant.

The Program was uncertain on the POI purpose of the comment. On October 25, 2019, the Program asked the POI if they determined that if using an earlier version resulted in an underestimation of ambient air quality standards, and the Program also asked for the models runs and all related files and reports used to demonstrate the underestimation.

Additionally, the Program counted 68 modeling files submitted by the applicant. The Program requested clarification on the 107 modeling runs presented by Stone Lions.

POI Second Letter did not provide any models run by Stone Lions but it requested an explanation of why using an older version of AERMOD is appropriate, and wants the Program to ensure that the use of a current version will not result in "highly significant" impacts.

The Program does not start using a new version of AERMOD the day it's issued. Experience has shown it's wise to continue using a stable release and let other people work the bugs out of the new version. Once a modeling review has begun, that review is typically finished using the same version of AERMOD that was used in the beginning of the review.

Changes to AERMOD code rarely result in important differences in modeled impacts. In the experience of Program's staff, changes to the processing of meteorological data are more likely to result in a change to impacts than changes in the AERMOD code itself. The changes to AERMET for the 18081 update were considered at the time of the update. The changes were minor and the Program did not rush to update either AERMOD or the meteorological data set used by AERMOD.

Regardless of the nature of the changes to AERMOD, a quick test reveals the concern over AERMOD versions is not critical. The final one-hour NO2 model was run on 16Oct2019 with AERMOD version 18081. The impacts were the same as with AERMOD version 16216r. The version of AERMOD was the only change for this test. Even the meteorological data input to AERMOD was not changed. The modeling files are available for inspection.

A test was also run using AERMOD version 19191 to compare to the results using AERMOD version 16216r. The model using AERMOD version 19191 used meteorological data processed with AERMET version 19191. The results from using AERMOD version 16216r used the same KABQ 2001-2005 meteorological data but processed with AERMET version 16216. For select individual receptors, differences in impacts from using the two different versions of AERMOD and AERMET were less than 1 µg/m3 but most receptors did not have any changes.

POI also indicated that the 107 modeling files were obtained from the NMELC and requested a clarification of which of the 107 models runs were considered by the Program. Montrose submitted 68 modeling files to the Program. If Stone Lions counted the files under the "EHD Review" folder in addition to the files submitted by Montrose, then the total comes out close to the number Stone Lions is claiming. The difference in files counted may be due to semantics in describing what was counted. However, the Program is still not certain how Stone Lions came up with 107 model runs especially when considering that they also claim those model runs were executed by Montrose.

Meteorological Data

Stone Lions made a change to the meteorological data used in Montrose ADM. Stone Lions used the surface observations, upper air sounding, and ASOS one-minute data collected by the National Weather Service at the Albuquerque International Airport from the year 2018; and it was processed using the most recent version of AERMET 19191. Stone Lions argues that Montrose used pre-processed meteorological data files from the Program's website for the period of 2001 to 2005, which was processed using AERMET Version 16216.

PROGRAM'S RESPONSE

In the POI First Letter, the POI states that 2018 National Weather Service data from the Albuquerque International Airport was processed with AERMET version 19191 and used in PM2.5 modeling executed

by Stone Lions. The Program agrees that it is not the responsibility of the POI or their consultant to create such a meteorological data set or to run models. However, the POI First Letter states that Stone Lions did that. The Program would like to review the meteorological data and other model inputs as well as the results of the model.

Additionally, in order to address POI's comments on the results of Stone Lions preliminary modeling review and the meteorological data, the Program asked for the following:

- The input and output files of the preliminary modeling review conducted by Stone Lions;
- Explanation of any changes on the parameters including the background concentrations to Montrose ADM files;
- The raw surface and upper-air data files for input to both AERMINUTE and AERMET;
- The input files with directions to AERMET and AERMINUTE for all stages of processing. Prior to 18081 of AERMET, the control file name (or input filename) for AERMET was cascaded as aermet.inp; and
- The AERMINUTE and AERMET output files.

The POI Second Letter did not provide the additional information requested by the Program, instead the POI requested "a mutual exchange of this information and will provide the requested documentation upon receipt from the Program." Additionally, POI stated that all permit applicants must use the most recent National Weather Service Data and the most current version of the model. The POI stated that "it is not the protestant's obligation to run new modeling using the most recent model and current data." The POI provided a link to the website where the Program could find the raw surface observation data, the upper air sounding data, and the ASOS one-minute data. However, .Stone Lions already has the modeling files submitted to the City as well as those created during the review of the modeling completed by the Program.

The Program created two wind roses for the Albuquerque International Airport National Weather Service Data, one for the period 2001-2005 and one for the period 2014-2018. The wind roses show similar distributions of wind directions and speeds. Although the climate is changing, the change is not rapid enough to result in great differences between the two wind roses.

The Program performed several tests on the modeling submitted for NMTS application #3340. The tests included updated versions of AERMOD and AERMET as well as using 2014-2018 meteorological data and more detailed surface characteristics.

- Updated versions of AERMOD and AERMET. The test was performed between AERMOD v18081/AERMET v16216 and AERMOD v19191/AERMET v19191 for 1-hour NO_2. The maximum modeled impact for 1-hour NO_2 was 181.0 $\mu g/m^3$ for both scenarios which is unchanged from the final/third submittal of NO_2 modeling for NMTS during the modeling review. Additionally the location of the maximum modeled impact was also unchanged on the fence west of the source HMASTK for both scenarios.
- 2014 – 2018 vs 2001 – 2005 Meteorological Data. The test was performed comparing 2014 – 2018 and 2001 – 2005 meteorological data for 24-hour $PM_{2.5}$. The 8th highest max daily averaged over five years for the 2014 - 2018 meteorological data was 30.3 $\mu g/m^3$ and for the 2001 – 2005 meteorological data was 30.3 $\mu g/m^3$. Using a background value of 20 $\mu g/m^3$ as of January 15, 2020 for the 2014 -2018 data and a background of 18 $\mu g/m^3$ for 2001-2005 the modeling still passes with both the 2001 -2005 and 2014 – 2018 meteorological data.
- 1-hour NO_2 Test of Detailed SFC Roughness Profile. The 8th highest max daily averaged over five years using the 2014 – 2018 met data and five sector characteristics in AERMET v1919 was 172.5 $\mu g/m^3$. AERMOD v19191 was used. In the modeling review completed in June 2018, the 8th

highest max daily averaged over five years using 2001 – 2005 meteorological data processed with AERMET v16216 was 181.0 µg/m^3.

- 24-hour $PM_{2.5}$ Test of Detailed SFC Roughness Profile. The 8th highest max daily averaged over five years using the 2014 – 2018 met data and five sector characteristics in AERMET v1919 was 31.5 µg/m^3. AERMOD v19191 was used. The background used was 18 µg/m^3. The most current background for modeling is 20 µg/m^3 which results in the cumulative impact of 33.5 µg/m^3 and the modeling passes when more detailed surface characteristics in the met data are used. Comparing the model run that used 2014 – 2018 meteorological data with only two sectors of surface characteristics, the impacts increased by 1.2 µg/m^3 with the use of five sectors of surface characteristics.

Exceedance of the PM2.5 NAAQS

Stone Lions made two different statements "the PM 2.5 NAAQS was exceeded multiple times at each of the ten Pueblo of Isleta locations;" and "it appears very likely that the PM 2.5 NAAQS will be exceeded at many locations…" These statements were made after making several changes to the modeling input files, which included: adding a five-foot height flagpole to receptors; utilizing the AERMOD Version of 19191 in all models except the PM2.5 for Unit #22; using a PM2.5 emission rate of 52 pph; and using 2018 meteorological data from the National Weather Service at the Albuquerque International Airport that was processed using AERMET Version 19191.

PROGRAM'S RESPONSE

Stone Lions, on behalf of the POI, conducted preliminary air dispersion modeling and changed several of the input files, including meteorological data, emission factors, and receptors. However, the POI First Letter did not include modeling files, or any data supporting their assessment. Therefore, on October 25, 2019, the Program requested the PM 2.5 modeling run conducted by Stone Ions, including input and output files for the modeling as well as detailed explanation of any changes in parameters including background concentrations, from the Montrose files.

Discrepancies between Montrose's Model and the NMTS Permit Application

Stone Lions stated that while preparing and executing Montrose ADM, they found 421 discrepancies between the Montrose ADM and NMTS Permit Application. The discrepancies were related to the source parameters and the emission rates identified as a result of that comparison.

As a result of the discrepancies, Stone Lions concluded that it is "virtually impossible to produce accurate and reliable calculated ambient air PM 2.5 concentrations" based on the number of discrepancies between Montrose ADM and the application, and the outdated version of AERMOD.

PROGRAM'S RESPONSE

Regarding the discrepancies mentioned by Stone Lions, the Program also noted discrepancies in evaluation of the applicant's model and the Application. The Program does not request corrections of discrepancies if they provide more protection of public health than the corrective action would take.

However, on October 25, 2019, the Program requested additional information from the POI, so the Program could determine whether the discrepancies identified by Stone Lions needed to be addressed. The Program requested the following information to evaluate any potential impacts:

- A detailed description of the discrepancies, including page number where available;
- A copy of Stone Lions Excel Spreadsheet, which identifies these discrepancies;
- Details each discrepancy and an explanation of the values in the Application versus the corresponding values in the model; and
- Highlight the discrepancies that the POI contends will result in inadequate protection of air quality.

In the POI Second Letter, the POI did not provide the requested information but it responded that it is the applicant's responsibility to provide accurate and complete information on the Application and that the modeling should be in support of the information provided in the application. The POI also stated that any discrepancies between the application and the modeling should be identified by the Applicant or the Program, and they should include an explanation of how those discrepancies will be more protective of public health.

Discrepancies found by the Program between the NMTS Permit Application and Montrose ADM input files are documented in the modeling log found in the DVD sent to the NMELC. Some of the discrepancies found are the following:

- In the particulate models, the mineral filler silo baghouse (source ID: HMAFILL) was characterized as having a default/vertical release. The application characterized HMAFILL as having a horizontal release. Given the relatively low emission rate of HMAFILL, important changes to the modeling results were not expected. The lack of important changes with this discrepancy was verified with a modeling run.
- Another discrepancy noted by Program was related to the exit velocity of the asphalt cement heater. The asphalt cement heater was modeled with an exit velocity of 4 feet per second (ft/s) while the application listed an exit velocity of 17 ft/s. Assuming the application is correct and the model was wrong, the lower exit velocity in the model would have resulted in higher ambient impacts than the correct exit velocity. Mistakes that result in overestimates of ambient impacts make the model less likely to pass and thus provide more protection of public health than the correction would provide.

The POI is correct in asserting that it is the applicant's responsibility to provide an accurate and complete application. However, if Stone Lions has found discrepancies that could affect the issuance of this permit, the POI should reveal those discrepancies rather than keeping them hidden. The Program has already requested this information once and the Pueblo has not provided this information. The Program takes its job to protect public health very seriously, and it is critical that any discrepancies are share with the Program in timely manner

Use of Waste Oil

Stone Lions commented that in the Public Notice of the Proposed Air quality Construction Permit Application, the Program said that the HMA plant drum dyer would be permitted to burn either fuel oil or natural gas. Stone Lions also pointed out that in the draft of the Air Quality Construction Permit prepared by the Program Unit #22 is authorized to burn fuel/waste oil or natural gas/ propane as fuel. Stone Lions stated that combustion of waste oil results in the emission of numerous dioxins, furans, chemical carcinogens and chemicals capable of causing reproductive toxicity. Additionally, Stone Lions also stated that the toxins and emissions from the combustion of waste oil in Unit 22 is unknown, and that the combustion process of fuel oil or waste oil will generate lead air emissions at a rate 24 times higher than the lead emissions from the combustions of natural gas or propane.

PROGRAM'S RESPONSE

Regarding Stone Lions' comment on the combustion of waste oil in Unit 22, the May 24, 2019 draft permit did not and the issued permit does not use the term waste oil. The May 24, 2019 draft permit and the issued permit both utilize the term "used oil" and limits the source to use oil that meets the specification of 40 CFR §279.11, and as previously discussed in Section III, 6 – Fuel Oil.

Stone Lions did not submit evidence that the substance to be emitted by the facility's operations as regulated by the permit would reach ambient concentrations of pollutants high enough to cause the health effects "capable" of causing reproductive toxicity.

Regarding the concerns raised by the POI on lead air emissions, the Program created a model for the lead (Pb) from the proposed NMTS HMA to determine how much throughput would be required at the drum dryer to reach the NAAQS and Significance Level[2] for lead. The Program ran different scenarios as proposed in the permit application and used the ones that showed the poorest dispersion. Additionally, the model assumed used oil was the only fuel source for the drum during all hours of operation. Following the NMED guidelines for Pb modeling, the Program used a monthly averaging period to compare to the standard, which is a more protective of public health, since the NAAQS for lead is a standard that is averaged quarterly. The Program's results were the following:

The Federal Standards for Lead are:
NAAQS 0.15 µg/m3 Significance Level: 0.03 µg/m3

Based on the application,
a 400 tph throughput will generate 0.006 pph of Pb emissions

Modeling demonstrated that,
the maximum monthly average was 0.00161 µg/m3 (located on the western fence of NMTS property).

With this information, the Program wanted to find out the following:

- The calculated emission rate (pph) needed to reach a Significance Level of 0.0031µg/m3
- Find the throughput (tph) that will result in the calculated Pb emission rate that will reach the Significance Level of 0.03µg/m3
- The calculated emission rate (pph) needed to reach the Pb NAAQS of 0.15 µg/m3
- Find the throughput (tph) that will result in the calculated Pb emission rate that will reach the Pb NAAQS

[2] Significance Level is the concentration in the ambient air of a specific pollutant that will require cumulative modeling for that pollutant.

To find the emission rate and throughput to reach the Significance Level for Lead, the Program did the following:

If 0.006 pph Pb emission rate generates a concentration of 0.00161 µg/m3 at the fenceline,
What emission rate will be needed to reach a concentration of Significance Level of 0.03 µg/m3?
Result, a Pb emission rate of 0.1118 pph will be needed to reach to the Pb Significance Level of 0.0031 µg/m3

Next, how much throughput will be needed to generate 0.1118 pph Pb emissions?
Result, a throughput of 7,453.33 tph will be needed to emit 0.1118 pph of lead emissions, which will reach the Significance Level for lead of 0.03 µg/m3. This is 19 times the hourly throughput authorized in the permit.

To find the emission rate and throughput to reach the NAAQS for Lead, the Program did the following:

If a Pb emission rate of 0.006 pph generates a concentration of 0.00161 µg/m3 at the fence,
What emission rate will be needed to reach the NAAQS for Pb of 0.15 µg/m3?
Result, a Pb emission rate of 0.559 pph will be needed to reach the NAAQS for PB of 0.15 µg/m3.
This is 93 times the Pb emission rate based on the hourly throughput authorized in the permit.

Next, How much throughput will be needed to generate 0.559 pph of Pb emissions?
Result, a throughput of 37,267 tph will be needed to emit 0.559 pph of lead emissions, which will reach the NAAQS for lead of 0.15 µg/m3
This is 93 times the hourly throughput authorized in the permit.

This exercise led to the following conclusion:

The facility would need an hourly throughput at the drum dryer 19 times and 93 times greater than the 400 tph production limit burning used oil at all of hours of operation to reach a significance level and NAAQS for lead, respectively.