

Associated Check List

<u>Checklist Name</u>	<u>Unit Name</u>
AIR INVESTIGATION - EQUIPMENT	EQUIP
MONITORING AND SAMPLING revised 06/2013	
AIR COMPLAINT INVESTIGATION	CMPL

Investigation Comments:

INTRODUCTION

On February 15, 2019, Ms. Archer Chattin, Environmental Investigator ('Investigator') of the Texas Commission on Environmental Quality (TCEQ), Dallas/Fort Worth (DFW) Region office, conducted an Air Quality Complaint (AIR-CMPL) investigation at Cowtown Redi Mix located at 2105 S State Highway 5, McKinney, Collin County, Texas. The investigation was conducted in response to two citizen complaints. Incident No. 305918, received on January 24, 2019, alleging that dust was impacting their property and requested sampling. Incident No. 305916, received January 18, 2019, alleged that their property was being impacted by dust. They also had concern that a nearby school was being impacted by operations at the facilities. On January 24, 2019, the investigator contacted all the complainants and discussed the investigation.

The area of interest in this investigation contains multiple facilities that conduct operations with the potential to produce dust, including three facilities that are currently the subject of ongoing Air Quality Complaint investigations: Cowtown Redi Mix (RN10871193) being addressed in this investigation, Lhoist North America McKinney Terminal (RN100804632) being addressed in Investigation No. 1554380, and TXI Operations McKinney Plant (RN102171238) being addressed in Investigation No. 1540584.

The purpose of the investigation was to determine if potential emissions sources in the area were operating in compliance with applicable state and federal air quality regulations, evaluate potential nuisance and to evaluate the effectiveness of corrective actions taken by the facility. Mr. Michael Wei and Ms. Jessica Sprague, Environmental Investigators for TCEQ, and Mr. Wesley Carpenter, Plant Manager for Cowtown Plant 5, participated in this investigation. Mr. Sam Shmaisani, Owner of Cowtown Redi Mix, was the regulated entity contact for this investigation.

DAILY NARRATIVE

On February 15, 2019, the investigators arrived in the vicinity of the complaint at 10:00 am and took weather readings using an anemometer. The temperature was 54 degrees Fahrenheit with 50% humidity and wind from the southwest at an average of 2 miles per hour.

Ms. Chattin met with the complainant associated with Incident No. 305918 and discussed the investigation. The complainant expressed emotional distress and concern for their health and the health of their community due to the impact of breathing cement dust. The investigators observed dust on surfaces at the property. The investigators took Tape Lift Samples of dust present on the complainant's property from uncovered surfaces. The investigators left the property.

The complainant associated with Incident No. 305916 was not available during the investigation but requested samples be taken at their property. The investigators took Tape Lift Samples of dust present on uncovered surfaces on the complainant's property. The investigators left the complainant's property and arrived near Malvern Elementary School at approximately 10:45 am and took Tape Lift Samples of dust on uncovered surfaces in the area around the school.

The investigators observed the facility from off property for approximately two hours and did not observe dust emissions leaving the property during that time. The investigators used the Optical Gas Imaging Camera (OGIC) to observe the facilities and detected no emissions.

The investigators arrived at Cowtown Redi Mix at 1:30 pm. No visible emissions were observed onsite or leaving the property. Ms. Chattin observed that some traffic areas appeared wet but did not observe any sprinklers or a water truck actively operating onsite. The investigators met with Mr. Carpenter and discussed the purpose of the investigation. Ms. Chattin asked if there had been any operational changes or incidents that had the potential to emit dust since the previous investigation.

Mr. Carpenter said they had not had any incidents and no operations had been changed. Ms. Chattin asked how

the facility was mitigating dust emissions and Mr. Carpenter stated that they have a water truck that waters at least once a day and all trucks are washed down before leaving the property, and that the facility was conducting visible emissions observations as required by their permit. The investigators took two Tape Lift reference samples onsite, one near the batch drop point and one in the in-plant road used for entering and exiting the facility. Ms. Chattin observed that there were areas of accumulated sand and dirt on paved traffic areas but overall the pavement appeared clean. The investigators left the area at approximately 1:45 pm.

The investigators also took two Tape Lift reference samples at TXI Operations McKinney Plant 3. For additional information regarding the investigation at this facility see Investigation No. 1540584.

Tape Lift samples were sent to the TCEQ Air Laboratory and the particles collected are characterized using polarized light microscopy and Scanning Electron Microscopy to determine the concentrations of different minerals and organic compounds. On March 22, 2019, the TCEQ laboratory returned the final results from the tape lift samples (see Attachment 1: Laboratory Analysis Results). The analysis used polarized light microscopy to analyze and compare particles taken offsite to particles taken from TXI Operations and Cowtown Redi Mix.

The reference sample no. 1540584-L was taken at the Cowtown Redi Mix batch drop point. The sample contained between 71 and 80% cement dust, between 5 and 20% each common clays, glassy spheres, and rubber dust; and less than 5% carbon and fungal material. EDS analysis of cement dust particles in the sample showed primary peaks of carbon, oxygen, aluminum, silicon, and calcium. EDS analysis of a feldspar crystal in the sample showed primary peaks of aluminum, silicon, and potassium.

The reference sample no. 1540584-M was taken in a high traffic area at Cowtown Redi Mix. The sample contained over 80% common clays and minerals, and less than 5% spiderwebs. EDS analysis of a quartz crystal in the sample showed primary peaks of oxygen, and silicon. EDS analysis of a feldspar crystal in the sample showed primary peaks of oxygen, aluminum, silicon, and potassium.

The reference sample no. 1540584-J was taken at the TXI Operations Batch drop point. The sample contained between 71 and 80% cement dust, between 5 and 20% each carbonaceous material and glassy spheres; and less than 5% common clays and minerals and rubber dust. EDS analysis of cement dust particles in the sample showed primary peaks of carbon, oxygen, aluminum, silicon, and calcium.

The reference sample no. 1540584-K was taken in a high traffic area at TXI Operations. The sample contained over 80% common clays and minerals, and less than 5% cement dust, glassy spheres, and rubber dust. EDS analysis of a quartz crystal in the sample showed primary peaks of oxygen, and silicon. EDS analysis of a feldspar crystal in the sample showed primary peaks of oxygen, aluminum, silicon, and potassium.

Sample 1540584-D was taken near Malvern Elementary. The sample contained between 21 and 30% cement dust, between 31 and 40% common clays and minerals, and less than 5% each of carbonaceous material, fungal material, glassy spheres, plant Trichomes, pollen, and spider webs. EDS analysis of cement particles showed primary peaks of carbon, aluminum, silicon, oxygen, potassium, and calcium. The x-ray spectra of the cement particles analyzed were consistent with the reference samples taken at both the Cowtown and TXI Operations batch drop points.

Sample 1540584-B was taken at the complainant's property associated with Incident No. 305916. The sample contained between 31 and 40% cement dust, between 31 and 40% common clays and minerals, between 5 and 20% rubber dust, and less than 5% each of fungal material, glassy spheres, plant fibers, and pollen. EDS analysis of cement particles showed primary peaks of carbon, aluminum, silicon, oxygen, sodium, and calcium. The x-ray spectra of the cement particles analyzed were consistent with the reference samples taken at both the Cowtown and TXI Operations batch drop points.

Sample 1540584-C was taken at the complainant's property associated with Incident No. 305918. The sample contained between 21 and 30% each cement dust and rubber dust, between 31 and 40% common clays and minerals, between 5 and 20% plant stellate hairs, and less than 5% each of carbonaceous material, fungal material, glassy spheres, plant fibers, pollen, and insect parts. EDS analysis of cement particles showed primary peaks of carbon, aluminum, silicon, oxygen, and calcium. The x-ray spectra of the cement particles analyzed were consistent with the reference samples taken at both the Cowtown and TXI Operations batch drop points.

Sample 1540584-G was also taken at the complainant's property associated with Incident No. 305918. The sample contained between 5 and 20% each cement dust and rubber dust, between 31 and 40% each of fungal material and common clays and minerals, and less than 5% each of glassy spheres, white paint overspray, pollen, and spider webs, and starch grains. EDS analysis of cement particles showed primary peaks of carbon, aluminum, silicon, oxygen, and calcium. The x-ray spectra of the cement particles analyzed were consistent with the reference samples taken at both the Cowtown and TXI Operations batch drop points.

Ms. Chattin reviewed sample results. The laboratory analysis concludes that the cement dust particles observed on the tape-lift samples taken from the complainant's properties and the facilities appeared to be consistent with each other. Cowtown Redi Mix and TXI Operations appear to be the only potential sources of cement dust in the immediate area of the complainant's properties and have both been observed to have visible emissions leaving their properties in previous investigations, therefore both facilities will be considered sources of the cement dust observed on the complainant's properties. Ms. Chattin checked past meteorological data to determine when the last rain event in the area of the sample locations to approximate a time frame for accumulation of the dust sampled. The investigator found that the most recent rain event had occurred on February 7, 10 and 11, 2019. The second most recent rain event occurred on January 3, 2019.

On April 11, 2019, the complainant associated with Incident No. 305916 submitted a written statement stating how the dust from the regulated entities was impacting them and their property. On April 12, 2019, the complainant associated with Incident No. 305918 submitted a written statement describing how the dust from the regulated entity was impacting them and their property.

The presence of cement dust in the recent dust accumulation found at the complainants' properties, along with complainant statements of inability to use and enjoy their outdoor spaces due to the presence of the dust appears to constitute a discharge of air contaminants in such concentration and duration as to interfere with the normal use and enjoyment of complainants' properties. This is a violation of 30 TAC 101.4. It is a category B17 violation, in accordance with the Enforcement Initiation Criteria (EIC) revision 16 and is classified as moderate. TXI Operations McKinney Plant 3 also received a violation of 30 TAC 101.4 based on this determination. For additional information see investigation no. 1540584.

The presence of cement dust at the complainants' properties also appears to suggest that corrective actions implemented by Cowtown Redi Mix are not sufficiently minimizing dust emissions leaving the property.

Exit Interview

On April 4, 2019, Ms. Chattin discussed the results of the investigation with Mr. Shmaisani and provided an Exit Interview Form via email (see Attachment 2: Exit Interview Form).

GENERAL FACILITY AND PROCESS INFORMATION

Process Description

Cowtown Redi Mix Plant 5 is a permanent concrete batch plant. Washed raw aggregate materials are hauled to site in covered trucks. Aggregates are loaded into aggregate bins using front-end loaders. Cement and fly ash are pumped to pigs from delivery trucks using a closed air hose pumping system. Cement is moved via air hose from pig to cement silo. Fly ash is moved from pig to fly ash silo via air hose. Aggregate bins and silos feed to discharge point. Emissions for aggregates, cement, and fly ash are handled by the central dust collection system and the silo collectors.

BACKGROUND

Compliance History

RE Name: Cowtown Plant 5 RN: RN108711193
Classification: Satisfactory Rating: 1.80 Publication Date: November 15, 2018
Customer Name: Cowtown Redi Mix Inc CN: CN602718157
Classification: Satisfactory Rating: 3.12 Publication Date: April 2, 2019

Agreed Orders, Court Orders, and other Compliance Agreements

No agreed orders, court orders, or other compliance agreements exist regarding this facility in the last five years.

Prior Enforcement Issues

On June 14, 2018, a Notice of Violation was sent to the facility noting three violations for failure to prevent visible

emissions from leaving the property, failure to perform and record Quarterly Visible Emissions Observations, and failure to provide start of construction and start of operation notification to the Region Office. The facility submitted corrective actions to address the violation on July 17, 2018 and the violations were resolved in investigation no.1512752.

Complaints

The TCEQ DFW Region office has received two other air quality related complaints regarding this facility in the last two years. Incident no. 279013 was received on February 19, 2018. The complainant alleged that the facility was creating excessive dust and operating a concrete recycling facility that was not authorized. This complaint was addressed in Investigation no. 1473172. No violations were alleged. Incident no. 281812 was received on March 27, 2018. The complainant alleged that steam and dust from the facility was impacting their property. This complaint is addressed in investigation 1484663 and resulted in a Notice of Violation. The violations were resolved in investigation 1512752.

ADDITIONAL INFORMATION

Conclusions, Recommendations, and Current Enforcement Actions

One violation is alleged for failure to prevent the discharge of an air contaminant, specifically cement dust, in such concentration and duration as to interfere with the normal use and enjoyment of complainant's properties. A Notice of Violation letter will be sent to the facility and a copy of the report will be sent to the complainants. Close Incidents Nos. 305916 and 305918.

Additional Issues

None

NOV Date 04/16/2019 **Method** WRITTEN

**OUTSTANDING ALLEGED VIOLATION(S)
ASSOCIATED TO A NOTICE OF VIOLATION**

Track Number: 710357

Compliance Due Date: 04/30/2019

Violation Start Date: 2/15/2019

**30 TAC Chapter 101.4
5C THSC Chapter 382.085(b)**

Alleged Violation:

Investigation: 1554375

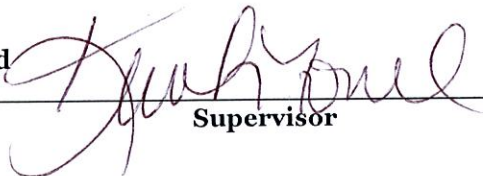
Comment Date: 04/15/2019

Failure to prevent the discharge of cement dust in such duration and concentration as to interfere with the normal use and enjoyment of property. During an investigation conducted on February 15, 2019, the investigators observed dust accumulation on complainants' properties and took Tape Lift Samples. The investigators also took reference samples at TXI Operations and Cowtown Redi mix. The sample analysis determined that the cement dust particles observed on the tape-lift samples taken from the complainant's properties and the facilities appeared to be consistent with each other. TXI Operations and Cowtown Redi mix are the only potential sources of cement dust in the area of the complainants properties and both have been observed to have visible emissions leaving their properties during previous investigations, therefore both facilities will be considered sources of the cement dust observed on complainants' properties. The complainants stated that this dust causes them not to be able to use outdoor spaces or furniture because the dust ruins clothes and causes concern for their health when they breathe it. The presence of cement dust at the complainants' properties also appears to suggest that corrective actions implemented by Cowtown Redi Mix are not sufficiently minimizing dust emissions leaving the property.

Recommended Corrective Action: Provide a written description of corrective actions taken to adress the violations within 14 days of the Notice of Violation letter.

Signed 
Environmental Investigator

Date 4/15/19

Signed 
Supervisor

Date 4/15/19

Attachments: (in order of final report submittal)

- Enforcement Action Request (EAR)
- Letter to Facility (specify type) : NOV
- Investigation Report
- Sample Analysis Results
- Manifests
- Notice of Registration

- Maps, Plans, Sketches
 - Photographs
 - Correspondence from the facility
 - Other (specify) :
2: Exit Interview Form
-

TCEQ

DFW Region



Attachment 1 **Laboratory Analysis Results**

Cowtown Plant 5 – RN108711193
Cowtown Redi Mix Inc – CN602718157

Investigation No.: 1554375
Investigation Date: 2/15/19

Pages: 12

Texas Commission on Environmental Quality

Laboratory and Quality Assurance Section
P.O. Box 13087, MC-165
Austin, Texas 78711-3087
(512) 239-1716

Laboratory Analysis Results

Request Number: 1902004

Request Lead: Frank Martinez

Region: T04

Date Received: 2/22/2019

Facility(ies) Sampled	City	County	Facility Type
TXI Operations Concrete Batch Plant	McKinney	Collin	Manufactory

Sample(s) Received

Field ID Number: 1540584-H Sampling Site: Suspected Source Comments: Tape lift of Lhoist wash out.	Laboratory Sample Number: 1902004-001RS Date & Time Sampled: 02/15/19 13:00:00	Sampled by: Archer Chattin Valid Sample: Yes
Field ID Number: 1540584-I Sampling Site: Suspected Source Comments: Tape lift of Lhoist bulk dry line.	Laboratory Sample Number: 1902004-002RS Date & Time Sampled: 02/15/19 13:00:00	Sampled by: Archer Chattin Valid Sample: Yes
Field ID Number: 1540584-L Sampling Site: Suspected Source Comments: Tape lift of Cowtown drop point.	Laboratory Sample Number: 1902004-003RS Date & Time Sampled: 02/15/19 13:25:00	Sampled by: Archer Chattin Valid Sample: Yes
Field ID Number: 1540584-M Sampling Site: Suspected Source Comments: Tape lift of Cowtown traffic area.	Laboratory Sample Number: 1902004-004RS Date & Time Sampled: 02/15/19 13:25:00	Sampled by: Archer Chattin Valid Sample: Yes
Field ID Number: 1540584-J Sampling Site: Suspected Source Comments: Tape lift of TXI drop point.	Laboratory Sample Number: 1902004-005RS Date & Time Sampled: 02/15/19 13:10:00	Sampled by: Archer Chattin Valid Sample: Yes
Field ID Number: 1540584-K Sampling Site: Suspected Source Comments: Tape lift of TXI traffic area.	Laboratory Sample Number: 1902004-006RS Date & Time Sampled: 02/15/19 13:10:00	Sampled by: Archer Chattin Valid Sample: Yes
Field ID Number: 1540584-D Sampling Site: Complainant's Property Comments: Tape lift of a sign.	Laboratory Sample Number: 1902004-007 Date & Time Sampled: 02/15/19 10:45:00	Sampled by: Archer Chattin Valid Sample: Yes
Field ID Number: 1540584-B Sampling Site: Complainant's Property Comments: Tape lift of an unknown. (301247)	Laboratory Sample Number: 1902004-008 Date & Time Sampled: 02/15/19 10:20:00	Sampled by: Archer Chattin Valid Sample: Yes
Field ID Number: 1540584-C Sampling Site: Complainant's Property Comments: Tape lift of an unknown. (301400)	Laboratory Sample Number: 1902004-009 Date & Time Sampled: 02/15/19 10:05:00	Sampled by: Archer Chattin Valid Sample: Yes
Field ID Number: 1540584-G Sampling Site: Complainant's Property Comments: Tape lift of an unknown. (301400)	Laboratory Sample Number: 1902004-010 Date & Time Sampled: 02/15/19 10:05:00	Sampled by: Archer Chattin Valid Sample: Yes

Texas Commission on Environmental Quality

Laboratory and Quality Assurance Section

P.O. Box 13087, MC-165

Austin, Texas 78711-3087

(512) 239-1716

Laboratory Analysis Results**Request Number: 1902004****Sample(s) Received**

Field ID Number: 1540584-F

Laboratory Sample Number: 1902004-011

Sampled by: Archer Chattin

Sampling Site: Complainant's Property

Date & Time Sampled: 02/15/19 10:35:00 Valid Sample: Yes

Comments: Tape lift of an unknown. (301019)

Field ID Number: 1540584-A

Laboratory Sample Number: 1902004-012

Sampled by: Archer Chattin

Sampling Site: Complainant's Property

Date & Time Sampled: 02/15/19 10:35:00 Valid Sample: Yes

Comments: Tape lift of an unknown. (301019)

Requested Laboratory Procedure(s):


Analysis: AP007MIC

Environmental Sample Characterization using Polarized Light Microscopy

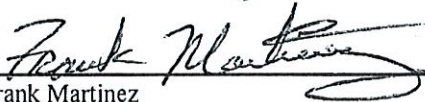
Analysis: AP008MIC

Sample Characterization using Scanning Electron Microscope with an Energy Dispersive X-Ray Microanalysis Spectrometer

Please note that this analytical technique is not capable of measuring all compounds which might have adverse health effects. For questions on the analytical procedures please contact the laboratory manager at (512) 239-1716.

Analyst: 

Amy Harvey

Date: 3/21/19Laboratory Manager: 

Frank Martinez

Date: 3/22/19

Laboratory Analysis Results

Request Number: 1902004

Analysis Code: AP007MIC & AP008MIC

Sample Number: 1902004-001RS

Analysis began: 2/27/2019

Analyst: Amy Harvey

SOP: AP007MIC Analysis completed: 3/19/2019

Sample 1540584-H was heavily loaded. Lime accounted for over 80% of the particle coverage. Other particles present in quantities less than 5% included spider web.

Sample Number: 1902004-001RS

Analysis began: 3/4/2019

Analyst: Amy Harvey

SOP: AP008MIC Analysis completed: 3/19/2019

Energy Dispersive Spectroscopy (EDS) of a lime particle showed elements carbon, oxygen, sulfur, and calcium. The primary peaks in the x-ray spectrum were carbon, oxygen, sulfur, and calcium.

EDS analysis of a second lime particle showed elements carbon, oxygen, and calcium. The primary peak in the x-ray spectrum was calcium.

EDS analysis of a third lime particle showed elements carbon, oxygen, magnesium, aluminum, silicon, and calcium. The primary peaks in the x-ray spectrum were carbon, oxygen, and calcium.

Sample Number: 1902004-002RS

Analysis began: 2/27/2019

Analyst: Amy Harvey

SOP: AP007MIC Analysis completed: 3/19/2019

Sample 1540584-I was heavily loaded. Lime accounted for over 80% of the particle coverage. Other particles present in quantities less than 5% included common clays and minerals.

Sample Number: 1902004-002RS

Analysis began: 3/4/2019

Analyst: Amy Harvey

SOP: AP008MIC Analysis completed: 3/19/2019

EDS analysis of a lime particle showed elements carbon, oxygen, and calcium. The primary peaks in the x-ray spectrum were oxygen and calcium.

EDS analysis of a second lime particle showed elements carbon, oxygen, and calcium. The primary peaks in the x-ray spectrum were carbon, oxygen, and calcium.

EDS analysis of a third lime particle showed elements carbon, oxygen, magnesium, silicon, sulfur, and calcium. The primary peaks in the x-ray spectrum were carbon, oxygen, and calcium.

Sample Number: 1902004-003RS

Analysis began: 2/27/2019

Analyst: Amy Harvey

SOP: AP007MIC Analysis completed: 3/19/2019

Sample 1540584-L was heavily loaded. The sample contained between 71 and 80% cement dust, between 5 and 20% common clays and minerals, between 5 and 20% glassy spheres, and between 5 and 20% rubber dust. Other particles present in quantities less than 5% included carbonaceous material and fungal material.

TCEQ laboratory customer support may be reached at Frank. Martinez@tceq.texas.gov

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Laboratory Analysis Results

Request Number: 1902004

Analysis Code: AP007MIC & AP008MIC

Sample Number: 1902004-003RS

Analysis began: 3/4/2019

Analyst: Amy Harvey

SOP: AP008MIC Analysis completed: 3/19/2019

EDS analysis of a glassy sphere particle showed elements carbon, oxygen, magnesium, aluminum, silicon, calcium, titanium, and iron. The primary peaks in the x-ray spectrum were oxygen, aluminum, silicon, and calcium.

EDS analysis of a second glassy sphere particle showed elements carbon, oxygen, sodium, magnesium, aluminum, silicon, potassium, calcium, titanium, and iron. The primary peaks in the x-ray spectrum were oxygen, sodium, aluminum, silicon, and calcium.

EDS analysis of a cement particle showed elements carbon, oxygen, magnesium, aluminum, silicon, calcium, and iron. The primary peaks in the x-ray spectrum were oxygen, aluminum, silicon, and calcium.

EDS analysis of a second cement particle showed elements carbon, oxygen, magnesium, aluminum, silicon, calcium, titanium, and iron. The primary peaks in the x-ray spectrum were oxygen, aluminum, silicon, and calcium.

EDS analysis of a third cement particle showed elements carbon, oxygen, aluminum, silicon, calcium, and iron. The primary peaks in the x-ray spectrum were carbon, oxygen, silicon, and calcium.

EDS analysis of a mineral (feldspar) particle showed elements carbon, oxygen, aluminum, silicon, and potassium. The primary peaks in the x-ray spectrum were aluminum, silicon, and potassium.

Sample Number: 1902004-004RS

Analysis began: 2/28/2019

Analyst: Amy Harvey

SOP: AP007MIC Analysis completed: 3/19/2019

Sample 1540584-M was heavily loaded. Common clays and minerals accounted for over 80% of the particle coverage. Other particles present in quantities less than 5% included carbonaceous material, and cement dust.

Sample Number: 1902004-004RS

Analysis began: 3/4/2019

Analyst: Amy Harvey

SOP: AP008MIC Analysis completed: 3/19/2019

EDS analysis of a mineral (quartz) particle showed elements oxygen and silicon. The primary peaks in the x-ray spectrum were oxygen and silicon.

EDS analysis of a mineral (feldspar) particle showed elements carbon, oxygen, magnesium, aluminum, silicon, phosphorus, potassium, calcium, and iron. The primary peaks in the x-ray spectrum were oxygen, aluminum, silicon, and potassium.

Sample Number: 1902004-005RS

Analysis began: 2/28/2019

Analyst: Amy Harvey

SOP: AP007MIC Analysis completed: 3/19/2019

Sample 1540584-J was heavily loaded. The sample contained between 71 and 80% cement dust, between 5 and 20% glassy spheres, and between 5 and 20% carbonaceous material. Other particles present in quantities less than 5% included common clays and minerals and rubber dust.

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Laboratory Analysis Results

Request Number: 1902004

Analysis Code: AP007MIC & AP008MIC

Sample Number: 1902004-005RS

Analysis began: 3/5/2019

Analyst: Amy Harvey

SOP: AP008MIC Analysis completed: 3/19/2019

EDS analysis of a glassy sphere particle showed elements carbon, oxygen, sodium, magnesium, aluminum, silicon, potassium, calcium, and iron. The primary peaks in the x-ray spectrum were oxygen, aluminum, and silicon.

EDS analysis of a second glassy sphere particle showed elements carbon, oxygen, magnesium, aluminum, silicon, potassium, calcium, titanium, and iron. The primary peaks in the x-ray spectrum were oxygen, aluminum, silicon, and calcium.

EDS analysis of a cement particle showed elements carbon, oxygen, magnesium, aluminum, silicon, and calcium. The primary peaks in the x-ray spectrum were carbon, oxygen, silicon, and calcium.

EDS analysis of a second cement particle showed elements carbon, oxygen, magnesium, aluminum, silicon, calcium, and iron. The primary peaks in the x-ray spectrum were carbon, oxygen, aluminum, and silicon.

EDS analysis of a third cement particle showed elements carbon, oxygen, silicon, and calcium. The primary peaks in the x-ray spectrum were carbon, oxygen, and calcium.

Sample Number: 1902004-006RS

Analysis began: 2/28/2019

Analyst: Amy Harvey

SOP: AP007MIC Analysis completed: 3/19/2019

Sample 1540584-K was heavily loaded. Common clays and minerals accounted for over 80% of the particle coverage. Other particles present in quantities less than 5% included cement dust, glassy spheres, and rubber dust.

Sample Number: 1902004-006RS

Analysis began: 3/5/2019

Analyst: Amy Harvey

SOP: AP008MIC Analysis completed: 3/19/2019

EDS analysis of a mineral (quartz) particle showed elements carbon, oxygen, and silicon. The primary peaks in the x-ray spectrum were oxygen and silicon.

EDS analysis of a mineral (feldspar) particle showed elements carbon, oxygen, aluminum, silicon, and potassium. The primary peaks in the x-ray spectrum were oxygen, aluminum, silicon, and potassium.

Sample Number: 1902004-007

Analysis began: 2/28/2019

Analyst: Amy Harvey

SOP: AP007MIC Analysis completed: 3/19/2019

Sample 1540584-D was heavily loaded. The sample contained between 21 and 30% cement dust, between 31 and 40% common clays and minerals, and between 31 and 40% rubber dust. Other particles present in quantities less than 5% included carbonaceous material, fungal material, glassy spheres, plant trichomes, pollen, and spider web.

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Laboratory Analysis Results

Request Number: 1902004

Analysis Code: AP007MIC & AP008MIC

Sample Number: 1902004-007

Analysis began: 3/7/2019

Analyst: Amy Harvey

SOP: AP008MIC Analysis completed: 3/19/2019

EDS analysis of a glassy sphere particle showed elements carbon, oxygen, sodium, magnesium, aluminum, silicon, potassium, calcium, titanium, and iron. The primary peaks in the x-ray spectrum were carbon, oxygen, aluminum, and silicon.

This x-ray spectrum of a glassy sphere particle is consistent with reference samples -003RS and -005RS.

EDS analysis of a cement particle showed elements carbon, oxygen, sodium, aluminum, silicon, chlorine, potassium, calcium, and iron. The primary peaks in the x-ray spectrum were carbon, oxygen, aluminum, silicon, and potassium.

EDS analysis of a second cement particle showed elements carbon, oxygen, magnesium, aluminum, silicon, chlorine, calcium, and iron. The primary peaks in the x-ray spectrum were carbon, oxygen, aluminum, silicon, and calcium.

These x-ray spectra of cement particles are consistent with reference samples -003RS and -005RS.

EDS analysis of a third cement particle showed elements carbon, oxygen, aluminum, silicon, and calcium. The primary peaks in the x-ray spectrum were carbon, oxygen, and calcium.

This x-ray spectrum of a cement particle is consistent with reference samples -001RS and -002RS (lime), and -003RS and -005RS (cement). This particle was categorized as cement due to its presence as a component of the larger cement aggregate.

EDS analysis of a mineral (quartz) particle showed elements carbon, oxygen, aluminum, and silicon. The primary peaks in the x-ray spectrum were oxygen, and silicon.

Sample Number: 1902004-008

Analysis began: 2/28/2019

Analyst: Amy Harvey

SOP: AP007MIC Analysis completed: 3/19/2019

Sample 1540584-B was heavily loaded. The sample contained between 31 and 40% cement dust, between 31 and 40% common clays and minerals, and between 5 and 20% rubber dust. Other particles present in quantities less than 5% included fungal material, glassy spheres, plant fibers, and pollen.

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Laboratory Analysis Results

Request Number: 1902004

Analysis Code: AP007MIC & AP008MIC

Sample Number: 1902004-008

Analysis began: 3/7/2019

Analyst: Amy Harvey

SOP: AP008MIC Analysis completed: 3/19/2019

EDS analysis of a glassy sphere particle showed elements carbon, oxygen, magnesium, aluminum, silicon, potassium, calcium, titanium, and iron. The primary peaks in the x-ray spectrum were oxygen, aluminum, silicon, and calcium.

This x-ray spectrum of a glassy sphere particle is consistent with reference samples -003RS and -005RS.

EDS analysis of a cement particle showed elements carbon, oxygen, sodium, magnesium, aluminum, silicon, potassium, calcium, and iron. The primary peaks in the x-ray spectrum were carbon, oxygen, aluminum, silicon, and calcium.

This x-ray spectrum of a cement particle is consistent with reference samples -003RS and -005RS.

EDS analysis of a second cement particle showed elements carbon, oxygen, sodium, aluminum, silicon, and calcium. The primary peaks in the x-ray spectrum were carbon, oxygen, and calcium.

This x-ray spectrum of a cement particle is consistent with reference samples -001RS and -002RS (lime), and -003RS and -005RS (cement). This particle was categorized as cement due to its presence as a component of the larger cement aggregate.

EDS analysis of a mineral (quartz) particle showed elements carbon, oxygen, and silicon. The primary peaks in the x-ray spectrum were oxygen, and silicon.

Sample Number: 1902004-009

Analysis began: 2/28/2019

Analyst: Amy Harvey

SOP: AP007MIC Analysis completed: 3/19/2019

Sample 1540584-C was lightly loaded. The sample contained between 21 and 30% cement dust, between 31 and 40% common clays and minerals, between 5 and 20% plant stellate hairs, and between 21 and 30% rubber dust. Other particles present in quantities less than 5% included carbonaceous material, fungal material, glassy spheres, insect parts, plant fibers, and pollen.

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Laboratory Analysis Results

Request Number: 1902004

Analysis Code: AP007MIC & AP008MIC

Sample Number: 1902004-009

Analysis began: 3/8/2019

Analyst: Amy Harvey

SOP: AP008MIC Analysis completed: 3/19/2019

EDS analysis of a glassy sphere particle showed elements carbon, oxygen, magnesium, aluminum, silicon, calcium, titanium, and iron. The primary peaks in the x-ray spectrum were carbon, oxygen, aluminum, silicon, and calcium.

This x-ray spectrum of a glassy sphere particle is consistent with reference samples -003RS and -005RS.

EDS analysis of a cement particle showed elements carbon, oxygen, sodium, magnesium, aluminum, silicon, potassium, calcium, and iron. The primary peaks in the x-ray spectrum were oxygen, aluminum, silicon, and calcium.

EDS analysis of a second cement particle showed elements carbon, oxygen, magnesium, aluminum, silicon, calcium, and iron. The primary peaks in the x-ray spectrum were carbon, oxygen, aluminum, silicon, and calcium.

These x-ray spectra of cement particles are consistent with reference samples -003RS and -005RS.

EDS analysis of a third cement particle showed elements carbon, oxygen, magnesium, silicon, sulfur, chlorine, and calcium. The primary peaks in the x-ray spectrum were carbon, oxygen, and calcium.

This x-ray spectrum of a cement particle is consistent with reference samples -001RS and -002RS (lime), and -003RS and -005RS (cement). This particle was categorized as cement due to its presence as a component of the larger cement aggregate.

EDS analysis of a mineral (felspar) particle showed elements carbon, oxygen, sodium, aluminum, silicon, calcium, and iron. The primary peaks in the x-ray spectrum were oxygen, sodium, aluminum, and silicon.

EDS analysis of a mineral (dolomite) particle showed elements carbon, oxygen, magnesium, and calcium. The primary peaks in the x-ray spectrum were oxygen, magnesium, and calcium.

EDS analysis of a mineral (quartz) particle showed elements carbon, oxygen, aluminum, and silicon. The primary peaks in the x-ray spectrum were oxygen and silicon.

Sample Number: 1902004-010

Analysis began: 2/28/2019

Analyst: Amy Harvey

SOP: AP007MIC Analysis completed: 3/19/2019

Sample 1540584-G was heavily loaded. The sample contained between 5 and 20% cement dust, between 31 and 40% common clays and minerals, between 31 and 40% fungal material, and between 5 and 20% rubber dust. Other particles present in quantities less than 5% included glassy spheres, paint overspray (white), pollen, spider web, and starch grains.

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Laboratory Analysis Results

Request Number: 1902004

Analysis Code: AP007MIC & AP008MIC

Sample Number: 1902004-010

Analysis began: 3/8/2019

Analyst: Amy Harvey

SOP: AP008MIC Analysis completed: 3/19/2019

EDS analysis of a glassy sphere particle showed elements carbon, oxygen, sodium, magnesium, aluminum, silicon, potassium, calcium, titanium, and iron. The primary peaks in the x-ray spectrum were oxygen, aluminum, and silicon.

This x-ray spectrum of a glassy sphere particle is consistent with reference samples -003RS and -005RS.

EDS analysis of a cement particle showed elements carbon, oxygen, aluminum, silicon, potassium, calcium, and iron. The primary peaks in the x-ray spectrum were oxygen, aluminum, silicon, and calcium.

EDS analysis of a second cement particle showed elements carbon, oxygen, sodium, magnesium, aluminum, silicon, chlorine, potassium, calcium, and iron. The primary peaks in the x-ray spectrum were carbon, oxygen, aluminum, silicon, and calcium.

These x-ray spectra of cement particles are consistent with reference samples -003RS and -005RS.

EDS analysis of a third cement particle showed elements carbon, oxygen, aluminum, silicon, and calcium. The primary peaks in the x-ray spectrum were carbon, oxygen, and calcium.

This x-ray spectrum of a cement particle is consistent with reference samples -001RS and -002RS (lime), and -003RS and -005RS (cement). This particle was categorized as cement due to its presence as a component of the larger cement aggregate.

EDS analysis of a mineral (dolomite) particle showed elements carbon, oxygen, magnesium, silicon, and calcium. The primary peaks in the x-ray spectrum were oxygen, magnesium, and calcium.

EDS analysis of a mineral (quartz) particle showed elements oxygen, and silicon. The primary peaks in the x-ray spectrum were oxygen, and silicon.

EDS analysis of a mineral (limestone) particle showed elements carbon, oxygen, aluminum, silicon, and calcium. The primary peaks in the x-ray spectrum were carbon, oxygen, and calcium.

EDS analysis of a mineral (feldspar) particle showed elements carbon, oxygen, aluminum, silicon, and potassium. The primary peaks in the x-ray spectrum were oxygen, aluminum, silicon, and potassium.

Sample Number: 1902004-011

Analysis began: 3/4/2019

Analyst: Amy Harvey

SOP: AP007MIC Analysis completed: 3/19/2019

Sample 1540584-F was moderately loaded. The sample contained between 21 and 30% cement dust, between 31 and 40% common clays and minerals, between 21 and 30% rubber dust, and between 5 and 20% pollen. Other particles present in quantities less than 5% included carbonaceous material, glassy spheres, plant stellate hairs, and plant trichomes.

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Laboratory Analysis Results

Request Number: 1902004

Analysis Code: AP007MIC & AP008MIC

Sample Number: 1902004-011

Analysis began: 3/8/2019

Analyst: Amy Harvey

SOP: AP008MIC Analysis completed: 3/19/2019

EDS analysis of a glassy sphere particle showed elements carbon, oxygen, magnesium, aluminum, silicon, calcium, titanium, and iron. The primary peaks in the x-ray spectrum were oxygen, aluminum, silicon, and calcium.

This x-ray spectrum of a glassy sphere particle is consistent with reference samples -003RS and -005RS.

EDS analysis of a cement particle showed elements carbon, oxygen, magnesium, aluminum, silicon, chlorine, potassium, calcium, and iron. The primary peaks in the x-ray spectrum were carbon, oxygen, aluminum, silicon, and calcium.

EDS analysis of a second cement particle showed elements, carbon, oxygen, sodium, magnesium, aluminum, silicon, chlorine, potassium, calcium, and iron. The primary peaks in the x-ray spectrum were oxygen, aluminum, silicon, chlorine and potassium.

These x-ray spectra of cement particles are consistent with reference samples -003RS and -005RS.

EDS analysis of a mineral (quartz) particle showed elements carbon, oxygen, and silicon. The primary peaks in the x-ray spectrum were oxygen and silicon.

Sample Number: 1902004-012

Analysis began: 3/4/2019

Analyst: Amy Harvey

SOP: AP007MIC Analysis completed: 3/19/2019

Sample 1540584-A was moderately loaded. The sample contained between 5 and 20% cement dust, between 31 and 40% common clays and minerals, and between 31 and 40% rubber dust. Other particles present in quantities less than 5% included glassy spheres, insect parts, plant fibers, plant trichomes, and pollen.

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Laboratory Analysis Results

Request Number: 1902004

Analysis Code: AP007MIC & AP008MIC

Sample Number: 1902004-012

Analysis began: 3/8/2019

Analyst: Amy Harvey

SOP: AP008MIC Analysis completed: 3/19/2019

EDS analysis of a glassy sphere particle showed elements carbon, oxygen, sodium, magnesium, aluminum, silicon, potassium, calcium, titanium, and iron. The primary peaks in the x-ray spectrum were carbon, oxygen, sodium, magnesium, aluminum, silicon, and calcium.

This x-ray spectrum of glassy sphere particle is consistent with reference samples -003RS and -005RS.

EDS analysis of a cement particle showed elements carbon, oxygen, sodium, magnesium, aluminum, silicon, chlorine, potassium, calcium, and iron. The primary peaks in the x-ray spectrum were oxygen, aluminum, and silicon.

EDS analysis of a second cement particle showed elements carbon, oxygen, sodium, magnesium, aluminum, silicon, potassium, calcium, and iron. The primary peaks in the x-ray spectrum were oxygen, aluminum, silicon, and calcium.

These x-ray spectra of cement particles are consistent with reference samples -003RS and -005RS.

EDS analysis of a mineral (quartz) particle showed elements carbon, oxygen, and silicon. The primary peaks in the x-ray spectrum were oxygen and silicon.

EDS analysis of a mineral (feldspar) particle showed elements carbon, oxygen, sodium, aluminum, and silicon. The primary peaks in the x-ray spectrum were oxygen, sodium, aluminum, and silicon.

EDS analysis of a mineral (dolomite) particle showed elements carbon, oxygen, magnesium, silicon, and calcium. The primary peaks in the x-ray spectrum were carbon, oxygen, magnesium, and calcium.

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Laboratory Analysis Results

Request Number: 1902004

Analysis Code: AP008MIC

Qualifier Notes:

- ND - not detected
- NQ - concentration can not be quantified due to possible interferences or coelutions.
- SDL - Sample Detection Limit (Limit of Detection adjusted for dilutions).
- SQL - Sample Quantitation Limit (Limit of Quantitation adjusted for dilution).
- INV - Invalid.
- J - Reported concentration is below SDL.
- L - Reported concentration is at or above the SDL and is below the lower limit of quantitation.
- E - Reported concentration exceeds the upper limit of instrument calibration.
- M - Result modified from previous result.
- T - Data was not confirmed by a confirmational analysis. Compound and/or results is tentatively identified.
- F - Established acceptance criteria was not met due to factors outside the laboratory's control.
- H - Not all associated hold time specifications were met. Data may be biased.
- C - Sample received with a missing or broken custody seal.
- R - Sample received with a missing or incomplete chain of custody.
- I - Sample received without a legible unique identifier.
- G - Sample received in an improper container.
- U - Sample received with insufficient sample volume.
- W - Sample received with insufficient preservation.

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TCEQ

DFW Region



Attachment 2 **Exit Interview Form**

Cowtown Plant 5 – RN108711193
Cowtown Redi Mix Inc – CN602718157

Investigation No.: 1554375
Investigation Date: 2/15/19

Pages: 1

TCEQ EXIT INTERVIEW FORM: Potential Violations and/or Records Request

Regulated Entity/Site Name		Cowtown Redi mix Plant 5		TCEQ Add. ID No.	108711193
Investigation Type		CMPL	Contact Made In-House (Y/N)	Y	Purpose of Investigation
Regulated Entity Contact		Mr. Sam Shmaisani		Telephone No.	Date Contacted
				FAX #/Email address	FAX/Email date

NOTICE: The information provided in this form is intended to provide clarity to issues that have arisen during the investigation process between the TCEQ and the regulated entity named above and *does not represent final TCEQ findings related to violations*. Any potential or alleged violations discovered after the date on this form will be communicated to the regulated entity representative prior to the issuance of a notice of violation or enforcement. Conclusions drawn from this investigation, including additional violations or potential violations discovered (if any) during the course of this investigation, will be documented in a final investigation report.

Issue		For Records Request, identify the necessary records, the company contact and date due to the agency. For Alleged and Potential Violation issues, include the rule in question with the clearly described potential problem. Other type of issues: fully describe.	
No.	Type ¹	Rule Citation (if known)	Description of Issue
1	AV	30 TAC 101.4	Failure to prevent the discharge of cement dust in such concentration and duration as to interfere with the normal use and enjoyment of complainant's properties.

Note 1: Issue Type Can Be One or More of: AV (Alleged Violation), PV (Potential Violation), O (Other), or RR (Records Request)

Did the TCEQ document the regulated entity named above operating without proper authorization?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Did the investigator advise the regulated entity representative that continued operation is not authorized?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Document Acknowledgment. Signature on this document establishes only that the regulated entity (RE) representative received a copy of this document and associated continuation pages on the date noted. If contact was made by telephone, the document will be sent via FAX or Email to RE; therefore, the RE signature is not required.

Archer Chattin	4/4/19	
Investigator Name (Signed & Printed)	Date	Regulated Entity Representative Name (Signed & Printed)
		Date

If you have questions about any information on this form, please contact your local TCEQ Regional Office.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, call 512/239-3282.