TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
MEMPHIS ENVIRONMENTAL FIELD OFFICE
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CERTIFIED MAIL 91 7108 2133 3932 2020 7186
RETURN RECEIPT REQUESTED

April 11, 2017

Mr. David Schwend, General Manager
Buzzi Unicem d/b/a Memphis Ready-Mix
1029 John A. Denie Road
Memphis, Tennessee 38134

Re: Compliance Evaluation Inspection (CEI)
National Pollutant Discharge Elimination System (NPDES) Permit Number TNG110041
Memphis Ready Mix – Walker Avenue Plant, 1280 Walker Avenue
Memphis, Shelby County, Tennessee

Dear Mr. Schwend:

On Tuesday, February 28, 2017, Cliff Caudle with the Tennessee Department of Environment and Conservation (TDEC) Division of Water Resources (DWR), Memphis Environmental Field Office (MEFO), conducted a Compliance Evaluation Inspection (CEI) at the above-referenced site located at 1280 Walker Avenue. Mr. Caudle was accompanied during the inspection by Mr. Joe Crawford, Batch Plant Manager at the facility. The Division appreciates the assistance of Mr. Crawford during the inspection and the assistance of Ms. DiAne Gordon of Environmental Compliance & Testing (ECT) in providing requested facility compliance documentation.

Overall, the inspection revealed the site to be in compliance with the terms and conditions of the NPDES permit. However, during the inspection, a minor amount of fine grayish-white material had accumulated in the concrete swale above Outfall 001. This material should be reclaimed and reused similarly to the material removed from the settling basins, as specified in RMCP Section 1.2.4.1., or taken to an appropriate landfill for disposal. Accumulated material from the site in proximity to the Outfall may indicate that additional Best Management Practices need to be used on-site, to prevent the migration of this material off-site.

Attached you will find a copy of the Compliance Evaluation Inspection Report and photos, which summarize the findings of the inspection. If you have any questions, please feel free to contact me at (901) 371-3028 or by email at cliff.caudle@tn.gov.

Sincerely,

Cliff Caudle
Environmental Scientist
Division of Water Resources
Memphis Environmental Field Office

Enclosure: CEI Report, photo document, ICIS report form
CC: TDEC/DWR/NCO, Enforcement and Compliance
TDEC/DWR/MEFO - file

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Water Resources

Memphis Environmental Field Office, 8383 Wolf Lake Drive, Bartlett, TN 38133

1-888-891-8332 (TDEC)

Compliance Inspection for Ready Mix Concrete Facilities General NPDES Permit

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Facility Name: Memphis Ready-Mix Walker Avenue Plant	**NPDES Tracking Number**: TNG110041
Facility Address: 1280 Walker Avenue, Memphis, Tennessee	
Permit Coverage Effective Date: January 22, 2013	**Permit Expiration Date:** October 31, 2017
Date/Time of Inspection: Feb. 28, 2017, 10:45AM –12:10PM	**Inspector Name:** Cliff Caudle

Official Contact Person Name: David Schwend, General Manager	
Address: Buzzi Unicem dba Memphis Ready-Mix, LLC 1029 John A. Denie Road Memphis, TN 38134	**Phone Number:** 901-386-8911 **Email:** David.Schwend@redemix.com

Introduction and Permitting Overview

On February 28, 2017, Mr. Cliff Caudle of the Tennessee Division of Water Resources (DWR) Memphis Environmental Field Office (MEFO) performed a Compliance Evaluation Inspection (CEI) at the Buzzi Unicem dba Memphis Ready-Mix (hereinafter referred to as "MRM") ready-mixed concrete facility located at 1280 Walker Avenue in Memphis, Tennessee (the "facility"). He met with Mr. Joe Crawford, Batch Plant Manager for MRM at the facility, to review the facility's monitoring records and to discuss the facility's self-monitoring program. Mr. Crawford also accompanied Mr. Caudle on an inspection of the facility. The following is a summary of the findings and observations during and after the inspection. The Division appreciates the assistance of Mr. Crawford during the inspection and the assistance of Ms. DiAne Gordon of ECT in providing requested facility compliance documentation.

The MRM Walker Avenue Plant (also referred to as "the facility") is covered under the General National Pollutant Discharge Elimination System (NPDES) Permit for Discharges of Storm Water Runoff and Process Wastewater Associated with Ready Mixed Concrete Facilities (TNG110000 – the "RMCP") under tracking number TNG110041. Coverage under the RMCP was issued on January 22, 2013, and expires on October 31, 2017. MRM is authorized under the RMCP to discharge process wastewater via Outfall 001 and storm water via Outfall SW1. Outfall 001 and SW1 are the same physical outfall. Discharge from the authorized outfalls is to the municipal storm sewer system, then to Cane Creek.

According to permit requirements, process water Outfall 001 must be monitored and any process water discharges sampled quarterly, at a minimum, and analyzed for pH, flow, total suspended solids (TSS), and iron (Fe). The permit also requires that storm water runoff at Outfall SW1 be sampled annually (during a qualifying rain event) and analyzed for pH, TSS, and Fe. Additionally, at a minimum, inspections of designated equipment areas should be conducted monthly per RMCP Section 7.3.4, and a comprehensive site evaluation should be performed annually and documented in an inspection and modification report per RMCP Section 7.7. Based on the findings of the evaluation, site BMPs should be modified accordingly within 12 weeks of the evaluation, and the Storm Water Pollution Prevention Plan (SWPPP) modified.

I. Records / Reports

The RMCP requires permittees to maintain copies of all pertinent facility documentation for their records, but does not require the documentation to be maintained at each plant. Documentation available for review on-site at the time of the inspection included the following:

- ✓ Copy of the facility's Notice of Coverage (NOC);
- ✓ 2014 1st, 2nd, 3rd, and 4th quarter Discharge Monitoring Reports (DMRs) for Outfall 001, and the annual DMR for Outfall SW1 along with corresponding chains of custody (COCs) and laboratory analytical reports;
- ✓ 2015 1st, 2nd, 3rd, and 4th quarter DMRs for Outfall 001 (No exceedances), and the annual DMR for Outfall SW1 along with corresponding chains of custody (COCs) and laboratory analytical reports; and
- ✓ 2016 1st, 2nd, 3rd, and 4th quarter DMRs for Outfall 001 (marked "No Discharge"), and the annual DMR for Outfall SW1 along with the corresponding chain of custody (COC) and laboratory analytical reports;
- ✓ Copies of monthly comprehensive site evaluations for January through December 2014, January through September 2015, and January through December 2016;
- ✓ Copies of annual comprehensive site evaluations for 2014, 2015, and 2016;
- ✓ pH data from the effluent at Outfalls SW1 and 001 (recorded on the COCs).

In an email to Ms. Gordon sent February 28, 2017, Mr. Caudle requested copies of the following documents.

- ✓ most recent, signed copy of Storm Water Pollution Prevention Plan (SWPPP),
- ✓ copies of monthly inspections for October, November, and December 2015,
- ✓ copies of flow measurements from process water sampling events, and
- ✓ copies of Ms. Gordon's 2016 pH calibration records.

A review of Division records confirmed that MRM had submitted all Process Water Discharge Monitoring Reports (DMRs) for the 1st Quarter 2014 through the 4th Quarter 2016 reporting period. Exceedances of pH for process water for all 4 quarters of 2014 were documented. According to the comments on the DMRs, new BMPs were employed, pH compliance was achieved in the first quarter of 2015, and no pH exceedances were documented for the facility throughout 2015 and 2016.

MRM had also submitted annual Storm Water DMRs for 2014, 2015, and 2016. Storm water DMRs for the 2014, 2015, and 2016 reporting periods indicated no exceedances of permit parameters. Please refer to Section IX below for additional information regarding storm water at the MRM Walker Avenue Plant.

According to the January 2017 SWPPP, as of March 31, 2017, the facility will report outfall monitoring directly to the U.S. EPA's NetDMR database.

Ms. Gordon conducts monthly comprehensive inspections at the facility, which exceeds the criteria for monthly inspections of designated equipment areas as specified in Section 7.3.4 of the RMCP. Ms. Gordon designates one comprehensive inspection "Annual" to fulfill the annual comprehensive facility evaluation requirement as specified in Section 7.7 of the RMCP, in place of one of the monthly inspections. As a reminder, the SWPPP should be evaluated at least annually based on the comprehensive evaluations and updated accordingly.

Ms. Gordon provided an unsigned copy of the SWPPP dated January 2017 via email on March 15, 2017, and provided a signed copy on April 3, 2017. Please refer to Section VIII below for additional information regarding pollution prevention at the MRM Walker Avenue Plant.

Please refer to Section IV below for additional information regarding flow measurement. Please refer to Section VI below for additional information regarding COCs, laboratory data sheets, and pH meter calibration.

II. Facility Site Review

The MRM Walker Avenue Plant is located at 1280 Walker Avenue (Figure 1) in Memphis, Tennessee. According to the facility SWPPP, the MRM – Walker Avenue Plant includes a batch office and a ready-mix concrete batch plant on the western portion of the site (Figure 1; Photo 1). Cement is stored in an enclosed silo and emptied directly into the mixer trucks. Sand, silica gravel, and limestone are stored in open stockpiles along the northern side and eastern portion of the site (Photo 2).

The site slopes to the south toward Walker Avenue. The seven-stage concrete treatment basin system is located at the south-central perimeter along Walker Avenue, and the batch plant and operations area drains to the treatment basin system (Figure 1; Photo 3). The approximately 6-foot retaining wall along the southern site boundary forms the south wall of the basin system, and maintains site elevations approximately 4 feet higher than Walker Avenue east and west of the basins. The truck washing station and slump rack are adjacent to the settling basins (Photo 3).

Based on the site inspection and according to the SWPPP, the facility discharges process water to Outfall 001 and storm water to Outfall SW1, which is the same physical outfall (Figure 1; Photos 4 & 5). Outfall 001/SW1 is located at the eastern end of the site at Walker Avenue. The sign designating a process water discharge was in place as required by the NPDES permit and contained required information (Photo 4). According to Ms. Gordon, some of the process water on-site is recycled back into the plant's batch process.

Process water sampling is conducted at Outfall 001 and analyzed according to permit requirements. At the time of the inspection, clear water was flowing from the basin system to Outfall 001 (Photo 5). Impacts to downstream waters could not be verified, as the outfall flows immediately into a catch basin and into the subsurface storm drainage system.

According to Mr. Crawford, the settled solids are removed from the settling basins on average once per week. Removed solids are placed in a three-sided, concrete block trap immediately east of the basin system for dewatering (Photo 6). The trap was not discharging at the time of the inspection. Once dried, solids are processed on the adjacent property to the north by agreement with the property owner, along with reclaimed and recycled concrete, for sale as fill (Photo 7). Concrete trucks wash out excess concrete in a gravel-bermed trap (Photo 8) on the adjacent north property, as well, and surface flow from this area is directed southward toward the treatment basins.

Water that is sprayed onto the aggregate stockpiles on the eastern end of the site for temperature control is considered process water, and discharges to Outfall 001 from the east driveway or from an opening in the retaining wall east of the east drive (Photo 9).

An approximately 1,000 square foot metal building (Photo 10) at the east end of the site houses containers of various truck washing products and diesel fuel additives, which are kept in closed, heavy plastic containers. Concrete admixtures are also kept on-site in heavy plastic containers near the batch plant (Figure 1; photo 10).

The only potential exposure to storm water is during filling/transfer to the containers. No evidence of spills was observed at the time of the inspection.

No truck or heavy equipment maintenance and servicing are performed at the MRM Walker Avenue Plant. The diesel AST with secondary containment was in service with no issues noted. A second fuel AST of double-walled steel construction was not in service and no issues were noted.

III. Effluent / Receiving Waters

Clear water was flowing in the southern perimeter swale along Walker Avenue to Outfall 001 (Photo 5). At the time of the inspection, a minor amount of fine grayish-white material had accumulated in the concrete swale above Outfall 001. This material should be reclaimed and reused similarly to the material removed from the settling basins, as specified in RMCP Section 1.2.4.1., or taken to an appropriate landfill for disposal. Accumulated material from the site in proximity to the Outfall may indicate that additional Best Management Practices need to be used on-site, to prevent the migration of this material off-site. No visible oil sheen or other observable pollutants were present at Outfall 001 or in the swale up-gradient of Outfall 001. The sign designating process water discharge was in place as required by the NPDES permit (Photo 4) and contained required information.

IV. Flow Measurement

Ms. Gordon conducts the flow measurement at Outfall 001. A review of the DMRs indicated that flow is measured using a one gallon container and a stop watch. Additionally, the flow measurements are recorded on the Chains of Custody in Millions of Gallons per Day (MGD). According to the NDPES permit, flow is "Report" only. Therefore, the method used to estimate the flow rate at Outfall 001 is acceptable.

V. Self-Compliance Program

A review of Division records confirmed that MRM had submitted all Discharge Monitoring Reports (DMRs) for the reporting period (1st Quarter 2014 through the 4th Quarter 2016), and also submitted annual Storm Water DMRs for 2014, 2015, and 2016. Please refer to Section I above for additional information regarding DMR/facility compliance.

In addition, MRM has conducted monthly inspections and annual comprehensive evaluations of the Walker Avenue Plant per Sections 7.3.4 and 7.7 of the RMCP, respectively. Please refer to Section I above for additional information regarding monthly inspections and annual evaluations at the MRM Walker Avenue Plant.

VI. Laboratory

Ms. Gordon of ECT is responsible for the facility's sample collection, including measurement of pH at Outfall SW1, and pH and flow when there is a discharge at Outfall 001. Ms. Gordon stated that the samples are collected directly into the containers provided by the laboratory, and placed in a cooler of ice for transport to the laboratory. Analysis of samples had been contracted to Cornerstone Laboratories LLC, located at 1775 Moriah Woods Blvd., Ste. 12, in Memphis, Tennessee. Chains of custody from annual storm water monitoring indicated that the temperature of the samples upon receipt at the laboratory was < 4° C, in accordance with test procedures approved under 40 CFR Part 136, as referenced in RMCP Section 8.9.4.

According to Ms. Gordon, she uses a digital pH meter to obtain the pH of the samples immediately after sample collection, which is within 15 minutes of sample collection and complies with test procedures approved under 40 CFR Part 136, as referenced in RMCP Section 8.9.4. The pH is recorded on the COCs at the time of sampling as noted in Part 1 of the report. The pH meter is calibrated before each sampling event. Ms. Gordon, per Division request, provided a log of pH calibrations through 2016 via email to the MEFO on March 15, 2017. The log contains calibrations using pH buffer solutions 4.01, 7.00 and 10.00, which are appropriate for the pH values typically encountered at the site, as recorded on the COCs at the time of sampling.

A review of the analytical methods used by Cornerstone Laboratories LLC revealed that the methods used to analyze for TSS and Fe are in accordance with test procedures approved under 40 CFR Part 136 and referenced in RMCP Section 8.9.4.

VII. Operation and Maintenance

Based on observations during the inspection, the MRM Walker Avenue Plant appears to be adequately maintaining areas onsite that are exposed to storm water. Additionally, the seven-stage sediment/settling basin that discharges to Outfall 001 appears to be adequately maintained. No issues relating to the daily operation of the facility were observed at the time of the inspection.

VIII. Pollution Prevention

The SWPPP is a written plan required by the RMCP that includes but is not limited to a site map, identification of potential pollutant sources, and a description of measures or practices to prevent these pollutants from discharging off-site and/or to waters of the state.

On February 28, 2017, Mr. Caudle requested (via email) a copy of the most recent, signed SWPPP from Ms. Gordon. An unsigned copy of the facility SWPPP dated January 2017 was provided via email by Ms. Gordon on March 15, 2017. A signed copy was provided via email by Ms. Gordon on April 3, 2017.

As a reminder, the SWPPP should be reviewed annually, at a minimum, and updated as necessary. Please refer to RMCP Section 7.34 and Section I above for additional information regarding monthly inspections, and to RMCP Section 7.7 and Section I above for additional information regarding annual comprehensive evaluations.

IX. Storm Water

Rain and thunderstorms had occurred on the morning of the inspection, and the plant was batching concrete as well. As a result, at the time of the inspection, water was discharging from the treatment basins and flowing to Outfall 001/SW1. Storm water undoubtedly contributed to the discharge from the basins, but the discharge from the basins was by definition a process water discharge. The water appeared to be clear with no on-site issues noted. Impacts to downstream waters could not be verified, as the outfall discharges to the subsurface storm drainage system. No visible oil sheen, color, or other observable pollutants were present in the basin system or in the vicinity of Outfall 001/SW1.

TDEC - Division of Water Resources
Memphis Field Office

ICIS NPDES Facilities Inspection Report

Facility Data

NPDES ID:	TNG110041	Facility Site Name	Buzzi Unicem Ready Mix LLC dba Memphis Ready Mix (Walker Avenue Plant)		
		Address	1280 Walker Avenue, Memphis, Tennessee 38106		
Permit Eff. Date:	22-JAN-13	Permit Exp Date:	31-OCT-17	SIC Code:	3273

Compliance Monitoring Information

Compliance Monitoring Activity Name	Compliance Evaluation (non-sampling) (CEI)
* If Bio Monitoring is selected above, select the method used:	
Compliance Monitoring Activity	Evaluation

Compliance Monitoring Dates/Times

Entry Date/Time (mm/dd/yyyy hh:mm):	02/28/2017 10:45	Exit Date/Time (mm/dd/yyyy hh:mm):	02/28/2017 12:10

Facility Representatives

Mr. Joe Crawford, Batch Plant Manager, 901-946-6783	Mr. David Schwend, General Manager, 901-386-8911
On-Site Representative(s)Title, Phone Number	Responsible Official(s), Title, Phone Number

Statute and Section Information

Federal Statute:	CWA - Clean Water Act	State Statute:	Tennessee Water Quality Control Act
Programs:	NPDES- Base Program (Limits, Reporting, & Schedule)		
Compliance Monitoring Reason:	Core Program		
Compliance Monitoring Agency Type:	State	Agency Name:	TDEC - DWR
Did EPA assist/ Inspection?	No	Time Physically conducting activity: Days:	1 Hours:
Inspection Type:	State	Compliance Monitoring Action Outcome:	
Lead Agency:	State	Compliance Monitoring Rating Code:	Unrated
If Joint Inspection, what was the purpose of the other party?			

Areas Evaluated During Inspection (*Check only those areas evaluated*)

☐ Permit	☒ Self - Compliance Program	☐ Pretreatment
☒ Records / Records	☐ Compliance Schedule	☒ Pollution Prevention
☒ Facility Site Review	☒ Laboratory	☒ Storm Water
☒ Effluent / Receiving Waters	☒ Operations & Maintenance	☐ Combined Sewer Overflow
☒ Flow Measurement	☐ Sludge Handling / Disposal	☐ Sanitary Sewer Overflow

Compliance Monitoring Summary

See attached Compliance Evaluation Inspection report

EPA and State Representatives

Cliff Caudle, Environmental Scientist	TDEC-DWR / Memphis Field Office / 901-371-3028	Apr 11, 2017
Inspector's Signature	Agency / Office / Phone	Date
Joellyn Brazile, CPESC, Envir. Program Manager	TDEC-DWR / Memphis Field Office / 901-371-3025	Apr 11, 2017
Manager's Signature	Agency / Office / Phone	Date