

Region 4 Enforcement Division
61 Forsyth Street, SW
Atlanta, GA 30303
INSPECTION REPORT

Inspection Date(s):	7/16/2024		Inspection Announced: Yes
Time:	Entry: 9:00 a.m.		Exit: 5:10 p.m.
Media:	Water		
Regulatory Program(s)	NPDES – Industrial Pretreatment Program		
Company Name:	Kia Motors, Inc.		
Facility Name:	Kia Motors, Inc.		
Facility/Site Physical Location:	7777 Kia Parkway		
(city, state, zip code)	West Point, GA 31833		
Geographic Coordinates (latitude, longitude):	32.91027, -85.13431		
Facility/Site Contact:	Shellee Pyron	EHS Environmental Manager	
	Shellee.pyron@kiageorgia.com		
	706-902-9208		
Industrial User Permit No:	GAP050268		
Publicly Owned Treatment Works (POTW):	City of West Point (City)		
POTW Permit Nos.:	City of West Point Water Pollution Control Plant (GA0020052)		
Facility/Site Personnel Participating in Inspection:			
Shellee Pyron	Kia Motors, Inc.	EHS Environmental Manager	706-902-9208
Stuart Countess	Kia Motors, Inc.	Not provided.	Not provided.
James Watson	Kia Motors, Inc.	Production Division Vice President	706-902-8703
T.J. White	Kia Motors, Inc.	Not provided.	Not provided.
Sherri Clark	Kia Motors, Inc.	EHS Environmental Program Manager	706-902-9206
Deb Walker	Kia Motors, Inc.	Not provided.	Not provided.
Tim Goff	Kia Motors, Inc.	Not provided.	Not provided.
Brandon York	Kia Motors, Inc.	Not provided.	Not provided.
Paricia-Anne Brownback	Kia Motors, Inc.	Not provided.	Not provided.
Cody Estopinal	Kia Motors, Inc.	Not provided.	Not provided.
Gregg Kim	Kia Motors, Inc.	Not provided.	Not provided.
Victor Gipson	Kia Motors, Inc.	Not provided.	Not provided.
Yong Kwon Kim	Kia Motors, Inc.	Not provided.	Not provided.
Inspector(s):			
Chuck Durham (Lead Inspector)	 Signature:		Date: 10/4/2024

	Eastern Research Group	EPA Contract Inspector	615-888-2928
Yatasha Moore (Report Author)	Signature: <u>Yatasha Moore</u>		Date: 10/4/2024
	Eastern Research Group	EPA Contract Inspector	615-776-3169
EPA Supervisor:			
Jairo Castillo	10/15/2024 <u>X</u> Jairo Castillo, P.E. Wastewater Enforcement Section Chief Signed by: Environmental Protection Agency		Date: 10/15/2024
	US EPA Region 4	EPA Manager	404-562-9257
Additional Persons Participating in Inspection:			
Mel-Chilecee Taylor	US EPA Region 4	Physical Scientist	404-562-9586
Eric Anderson	Georgia EPD	Environmental Engineer	470-610-4322

SECTION I – INTRODUCTION

Purpose of the Inspection

On July 16, 2024, Chuck Durham and Yatasha Moore, U.S. Environmental Protection Agency (EPA) Contract Inspectors (hereinafter, collectively termed the inspection team), conducted a pretreatment industrial user inspection of the Kia Motors, Inc. facility (hereinafter termed the facility or permittee). The purpose of the inspection was to evaluate compliance with the requirements of the Federal Pretreatment Regulations at 40 CFR Part 403. The inspection consisted of conversations with facility personnel and an inspection of the facility's process areas, wastewater generating processes, pretreatment system, sampling location, and chemical storage areas.

The facility is permitted to discharge industrial wastewater into the City of West Point (City) sewer under State SIU permit number GAP050268. The Georgia Environmental Protection Division (GA EPD) has correctly classified this facility as a categorical industrial user (CIU), additionally subject to the Metal Finishing Point Source Category's Pretreatment Standards for New Sources in 40 CFR 433.17.

Opening Conference

Upon arriving at approximately 9:00 a.m. on July 16, 2024, the inspection team met with the facility representatives listed on the cover page.¹ The inspection team was accompanied by Ms. Mel-Chilecee Taylor (US EPA Region 4) and Mr. Eric Anderson (GA EPD). The inspection team presented credentials, provided business cards, and informed the facility representatives of the purpose and intent of the inspection.

The facility representatives explained that the facility assembles gas and electric vehicles. According to the facility representatives, the wash line etchant was changed over the winter shutdown (December 2023-January 2024) from zinc phosphate to a phosphate-free zirconium to better meet etching needs for the aluminum in the new electric vehicle production line. As part of this process change, the facility also changed the degreaser used. At the time of the inspection, the facility had installed and was in the process of commissioning a reverse osmosis unit as part of the wastewater treatment process. This will allow the facility to recirculate treated wastewater back into the facility and reduce the amount of wastewater discharged to the City.

¹ The majority of the facility responses were provided by Ms. Shelle Pyron, Mr. James Watson, and Ms. Sherri Clark. Specific other staff listed on the cover of this report provided additional details throughout various parts of the inspection.

Facility Description

The facility is located at 7777 Kia Parkway, West Point, Georgia. The facility employs approximately 3,200 people and operates 24 hours per day, Monday through Friday, with three operating shifts. The facility has weekend production as needed, based on demand. The facility consists of multiple buildings including offices, production process areas, a wastewater treatment area, and chemical storage areas.

According to the facility representatives, the facility receives cold rolled steel. Parts are stamped in the stamping shop. Panels are robotically assembled in the welding shop. Car bodies are then painted using electrodeposition in the paint shops before moving to the assembly shop. The facility performs a series of tests on the completed cars before sending them outside to the test track. Cars then come back inside for a shower and leak test before being prepared for shipping. The facility does not perform any battery or engine manufacturing onsite.

Wastewater collected for pretreatment and discharge to the City includes wastewaters from the die wash, rinse waters from the paint shop wash line, the shower test track, and environmental testing on paints and vehicle fluids in the quality lab. Additionally, the facility manually cleans out the trench drain under the fluid fill line once or twice per year. The facility discharges approximately 200,000 gallons per day (gpd) of sanitary wastewater and approximately 220,000 gpd of process wastewater.

The facility added biological treatment to its wastewater pretreatment process in 2021. The facility's current wastewater pretreatment process begins with three collection pits followed by two equalization tanks. Wastewater is then pretreated in a series of tanks where metals precipitation is performed. Wastewater is then clarified before being treated with biological membrane filters and discharged to the City. Sludge from the clarifiers is dewatered using a filter press and solids are hauled off-site by AmWaste to Salem Landfill.

SECTION II – OBSERVATIONS

Wastewater Pretreatment

The inspection team began the walk-through portion of the inspection by walking through the facility's wastewater pretreatment process. The facility operates its pretreatment process through a contract with Treatment Technologies.

Wastewater from the production area flows into three inground pits that are approximately 66,000 gallons each (see Photograph 1). Wastewater is then pumped into two 100,000-gallon equalization tanks in parallel (see Photograph 2). Wastewater is

pumped from the equalization tanks to a treatment tank where sulfuric acid is added. Wastewater is then pumped to tank 104 where lime is added. As the wastewater leaves tank 104, ferric chloride is added. Sulfuric acid is added in tank 105. As wastewater leaves tank 105, hydroxide is added to aid in additional metals removal. Wastewater is then pumped to the floc tank where polymer is added. Wastewater then flows through the clarifier. Treated water from the clarifier goes to a small holding tank before it is fed to the membrane biological reactor (MBR). Solids from the clarifier go to a sludge thickener tank before being sent through the filter press for dewatering. Wastewater from the dewatered sludge is pumped back to the inground holding pits at the beginning of the wastewater treatment process.

At the time of the inspection, the facility had installed and was in the process of commissioning a reverse osmosis system to treat some of the effluent from the MBR. The reverse osmosis system will allow the facility to use treated wastewater in its production process instead of discharging it to the City.

Production Area

The inspection team then proceeded through the welding area of the production process. The facility uses robots for assembly of doors and welding.

The inspection team then proceeded to the die wash area. The facility uses high pressure hoses with soap and water to clean stamping dies. According to the facility representatives, a rust preventative is periodically used for some dies. The dies are dried with air from a hose before being hand dried with towels. Wastewater from the die wash area flows into a drain that discharges to the facility's wastewater treatment process.

The inspection team proceeded to observe the car shower test area. While moving to the shower test area, the inspection team observed the vehicle assembly process. As vehicles are fully assembled, they are driven on the test track. From the test track, vehicles go through the shower test tunnel where a rainstorm is simulated in order to test the vehicles for leaks. According to the facility representatives, the water from the shower test area is discharged every two weeks to the facility's wastewater treatment process.

The inspection team then proceeded to the facility's quality lab. The quality lab tests various fluids that are used throughout the production and assembly process. The inspection team observed a sink in the quality lab that is used to rinse out lab

equipment. According to the facility representatives, this sink discharges to the facility's wastewater treatment process (see Area of Concern 1).

Hazardous Materials Storage Building

The inspection team proceeded to the facility's hazardous materials storage building. This building contains separate areas for 90-day hazardous waste storage and universal waste storage. Additionally, this building is also used to store items that the facility's insurance company does not want stored inside of the building, including brake fluid. The inspection team did not observe any floor drains in the building.

The inspection team observed non-hazardous waste in 55-gallon drums, including isopropyl alcohol, seatbelts, used oil, paint filters, paint rags, and air bags. The inspection team also observed hazardous waste stored in 55-gallon drums that were properly labeled. Hazardous waste produced by the facility includes waste paint, methyl ethyl ketone, waste gasoline, and purged solvents.

Paint Shop

The inspection team then proceeded to walk through the facility's paint shop. Vehicle bodies go through the following stages in the paint shop:

- Pretreatment (zirconium conversion coating process)
- Electrodeposition
- Sealing
- Under Body Sealing (UBS)
- Electrodeposition inspection
- Primer coat
- Primer inspection
- Top coat
- Top coat inspection

The zirconium conversion coating process listed above consists of the following stages:

- Water rinse with deionized water
- Degreaser
- Zirconium
- Final rinse with deionized water

The electrodeposition bath consists of the following products:

- Pigment

- Resin
- Acetic acid for pH control
- Solvent
- Water

Wastewater from the paint shop is discharged to one of the three holding pits at the wastewater treatment system.

SECTION III – REPORTING AND MONITORING RESULTS

The inspection team reviewed the facility's self-monitoring reports for December 2022 – June 2024. The facility experienced exceedances of the zinc permit limit in January and June 2024. The facility provided electronic notification to GA EPD of these permit limit exceedances. According to the facility representatives, the commissioning of the new reverse osmosis system was thought to be the cause of these permit limit exceedances. The facility's permit issued by GA EPA does not require the facility to develop a slug discharge control plan and the facility has not developed a slug discharge control plan.

SECTION IV – AREAS OF CONCERN

The inspection team held a closing conference with the facility representatives that included a review of the preliminary inspection observations and areas of concern. The presentation of areas of concern listed below does not constitute a formal compliance determination:

1. During the site inspection, the inspection team observed a sink in the facility's quality lab that discharges to the facility's wastewater treatment process (see Photograph 4). According to the facility representatives, this sink is used to rinse out lab equipment. The inspection team recommends that the facility place signage above the sink stating that expired or other waste bulk chemicals should not be poured down the drain.
2. During the site inspection, the inspection team observed that the facility was not storing all chemicals in secondary containment. According to the facility representatives, chemicals are only stored in secondary containment if they are actively in use (see Photographs 3 and 5). Additionally, the inspection team observed a chemical tote under the paint line in the paint shop that was not fully on secondary containment. This tote was in the area of a floor drain discharging to the facility's wastewater pretreatment process. The inspection team recommends that the facility ensure that all chemicals are properly stored in secondary containment to ensure that they do not accidentally enter the wastewater treatment system in the event of a leakage or rupture.

3. According to the facility representatives, the facility is collecting self-monitoring samples using time-proportional composite samples. Based on the files reviewed, time-proportional samples were collected for the last three years of files reviewed. However, the facility's discharge permit requires the use of flow-proportional composite samples. The facility is required to ensure that self-monitoring samples are collected using flow-proportional composite samples as required by the discharge permit.
4. During the site inspection, the inspection team observed that the facility did not have a manual thermometer inside the composite sampler. Footnote 2 of Table II in 40 CFR 136.3(e) states that "for an composite sample collected with an automated sample..., refrigerate the sample at ≤ 6 °C during collection unless specified otherwise in this Table II or in the method(s)" It is recommended that the facility place a manual thermometer inside the composite sampler to ensure that the inside of the composite sampler is maintaining samples below 6 °C as required in 40 CFR Part 136.

SECTION V – DOCUMENTS REQUESTED AFTER THE INSPECTION

During the closing conference portion of the inspection, the inspection team requested the documents listed below from the facility. The facility provided these documents to the inspection team on July 19, 2024.

- Self-monitoring reports for January, February, and June 2024
- Most recent hazardous waste manifest dated June 26, 2024
- Correspondences sent to GA EPD related to installation of the reverse osmosis system and notifications of violations in January and June 2024

No additional concerns were noted from the review of these documents.

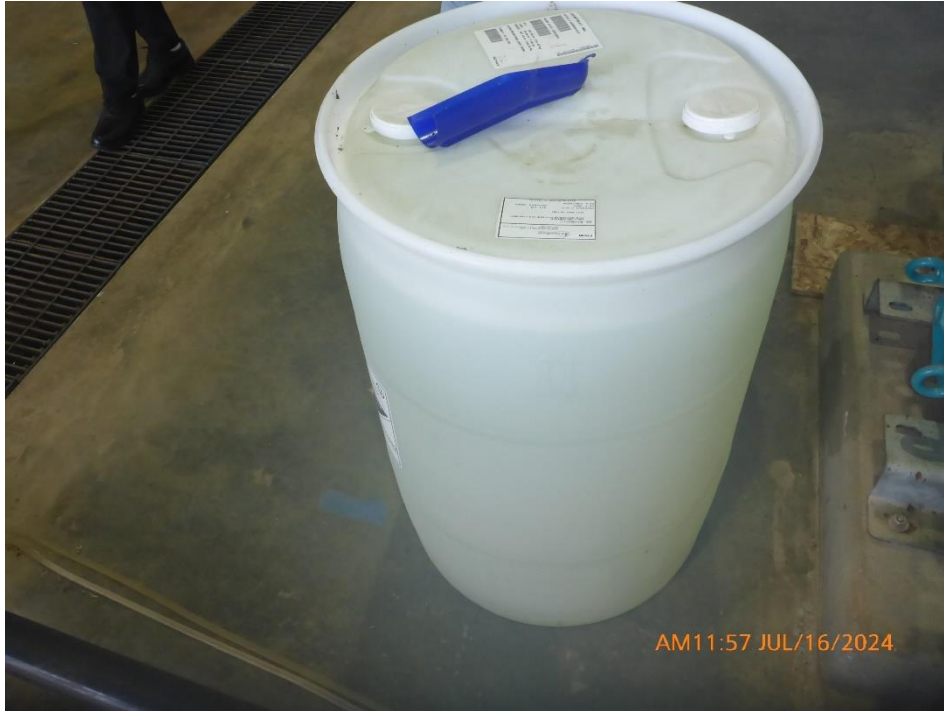
SECTION VI – PHOTOGRAPH LOG



Photograph 1: Three 66,000-gallon wastewater collection pits (underground).



Photograph 2: Wastewater equalization tanks.



Photograph 3: Drum of chlorine scavenger not on secondary containment near a floor drain in the wastewater treatment area.



Photograph 4: Sink in the quality lab that discharges to the wastewater treatment process.



Photograph 5: Chemical tote in the paint shop observed to be partially on secondary containment.

= END OF REPORT =