



Region 2 Caribbean Environmental Protection Division
Multimedia Permits and Compliance Branch
Air Protection Team

CAA Inspection Report

Inspection Date(s): July 17-20, 2023

Facility Names: PR Asphalt Barranquitas;
PR Asphalt Caguas;
PR Asphalt Carolina;
PR Asphalt Humacao; and
PR Asphalt Salinas

Facility Addresses: PR-152 Km 1.0, Barrio Quebrada Grande, Barranquitas, PR 00794
PR 152, km 56.9, Bo. Cañabón Caguas, PR 00727
PR-887 km 0.6, Bo. San Martín, Carolina, PR 00987
PR-198 KM 26.6, Barrio Cotto Mabú, Humacao, PR 00791
PR-1 KM 83.4, Sector Sabana Llana, Salinas, PR 00751

EPA Lead Inspector: Alex Rivera, Environmental Engineer, 787-977-5845, rivera.alex@epa.gov

EPA Asst. Inspector(s): Gloria Díaz-Galarza, Environmental Engineer, 787-977-5882
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Facility Contact: Jorge A. Díaz Mayoral, Responsible Officer, 787-710-2525,
jadiaz@prasphalt.com
Jesus C. Acosta, Corporate Manager, 787-636-1249,
jacosta@prasphalt.com
Loyda De Jesús, Compliance Resource Inc.
Pedro Rosa, Carolina Manager
Harry Meléndez, Humacao Plant Manager
Wadellys Lozada, Humacao Plant Operator
Ramiro Perdomo, PR Asphalt Maintenance Supervisor
Luis Ortiz, Salinas Manager

This report documents Clean Air Act (“CAA”) compliance inspections performed by the United States Environmental Protection Agency (“EPA”) at five facilities owned and operated by Puerto Rico Asphalt, LLC (“PRA”). The five facilities are located in Barranquitas, Caguas, Carolina, Humacao, and Salinas. Alex Rivera, EPA, led the inspection assisted by EPA’s Gloria Díaz-Galarza

and contractor personnel, Bryan Lange, from Eastern Research Group, Inc. (“ERG”). The purpose was to identify potential compliance concerns with CAA regulations.

Permitted Regulatory Program(s) and Other Information Reviewed:

1. Puerto Rico Regulations for Control of Atmospheric Pollution (RCAP)
2. General Provisions – 40 CFR Part 60 Subpart I
3. Records received in response to EPA 2023 CAA Section 114 Information Request Letters¹
4. Facility Operating Permit Compliance

This report is a summary of observations and information gathered from the facilities at the time of the inspections. The information provided does not constitute a final decision on compliance with CAA regulations or applicable permits, nor is it meant to be a comprehensive summary of all activities and processes conducted at the facilities.

1. Inspection Summary

Opening Meeting

The inspectors (i.e., Alex Rivera, Gloria Díaz-Galarza, Bryan Lange) arrived at each facility on consecutive mornings starting on July 17, 2023, and continuing through July 20, 2023 (shown in Table 1 below). On the first day the inspectors were received by the corporate manager Mr. Jesús C. Acosta, Ms. Loyda De Jesús and Mr. Pedro Rosa at the PRA facility in Carolina. Mr. Acosta and Mr. Rosa also accompanied the inspectors at the Caguas and Barranquitas facilities.

At each facility inspectors observed hot mix asphalt production, as well as trucks exiting with hot mix. Daily production and visible emissions observations were recorded and shown in Table 1 below.

Table 1: Conditions on Arrival

PR Asphalt Facilities	Date; Arrival and Departure Time	Daily Production Total (Type Produced) *	Visible Emission observations in Baghouse or Silo Exhaust (Background)
Carolina	July 17, 2023. Monday 9:45 am – 11:45 am	741 tons (5V and S-75)	No visible emissions from either source.
Salinas	July 19, 2023. Wednesday 10:00 am – 11:15 am	450 tons or 18 trucks (5V)	No visible emissions from either source.
Caguas	July 18, 2023. Tuesday 8:55 am – 10:45 am	292 tons (S1)	No visible emissions from either source.
Barranquitas	July 20, 2023. Thursday 10:30 am – 11:15 am	400 tons (5V)	No visible emissions from either source.
Humacao	July 18, 2023. Tuesday 12:45 am – 2:00 pm	548 tons (5V)	Poor background conditions for visible emission observation; cloudy.

* Production details were provided by facility specific control room operators. The 5V type is commonly purchased by municipalities. S-75 is used as a base layer.

¹ Díaz, Jorge A. Response to Request for Information Reference Number: CAA-02-20231415 Puerto Rico Asphalt. July 21, 2023, and June 26, 2023.

At the Carolina facility, Mr. Acosta briefly explained the shared history of the PRA Facilities. According to Mr. Acosta, prior to 2016 Betterroads and Betterrecycling previously owned all five (5) Facilities. Mr. Acosta added that in 2016, due to bankruptcy the lender Banco Popular took ownership of the Facilities.

After some time, PRA began renting and operating the Facilities from the bank. In 2021, PRA purchased the Facilities. Mr. Acosta also informed that Eng. Rosario Jiménez, an environmental consultant (Compliance Resource Inc.) was then contracted to support PRA with their compliance requirements.

Mr. Acosta explained the various challenges related to the CAA Section 114 request for information letter (“114 RFI”) issued by EPA on April 4, 2023. Among these challenges, Mr. Acosta mentioned that records were lost when ownership changed and that many permit records were lost in 2017 due to Hurricanes María subsequent high humidity conditions.

ERG took photos at each of the inspected PRA Facilities. Attachment 1 contains a digital photo log for each Facility, including the description of each photo, its details, and any applicable comments.

Daily Operations:

The following is a summary of the PRA Facilities operations based on PRA representative’s general overview. Hot mix processing begins as the aggregate (i.e., virgin aggregate, reclaimed asphalt pavement [RAP]²) is transported using a front-end loader from storage piles and placed in appropriate hoppers of the cold feed unit. Materials are metered from the hoppers onto a conveyor belt and are transported into a rotary dryer. All PRA Facilities have a single dryer that is heated with PREPA fuel (mixture of 50% used fuel oil and 50% diesel). Dryers are equipped with flights designed to shower the aggregate inside the drum to promote drying efficiency. The mixture is discharged at the end of the drum and is conveyed to storage silos, where it is dropped into transport trucks. Burner exhaust gases exit the end of the drum and pass to particulate matter (PM) collection systems.

- Three (3) PRA Facilities (i.e., Salinas, Carolina, Humacao) operate a counterflow drum mixer. The material flow in the drum is opposite or counterflow to the direction of exhaust gases. The liquid asphalt mixing zone is behind the burner flame zone. Liquid asphalt flow is linked to the virgin aggregate and RAP weigh scales. It is injected into the mixing zone along with any RAP and PM from cyclone and baghouse.³ Mr. Acosta indicated that counterflow mixers are more fuel efficient.
- The other PRA Facilities (i.e., Barranquitas, Caguas) operate a parallel drum mixer. Aggregate is introduced to the drum at the burner end. As the drum rotates, the

² In the reclamation process, old asphalt pavement is removed from the road base. PR Asphalt has a single location for RAP collection and crushing in Carolina. Crushing creates a homogeneous material. The RAP collection Facility was not visited.

³ Pedro Rosa shared a YouTube video to help the Inspectors visualize the counterflow process. <https://www.youtube.com/watch?v=v6PrPTpXKDY>. Note, not all PR Asphalt mixers are currently insulated.

aggregates move toward the other end of the drum in parallel. Liquid asphalt cement is introduced in the mixing zone midway down the drum in a lower temperature zone, along with any RAP and PM from collectors.

There were unique production and ownership observations at two (2) Facilities:

- The Salinas Facility mixer system was unique in that it had two (2) drums. One (1) to counterflow drum to dry the aggregate, the second is where the RAP and liquid asphalt are added and mixed.
- The Humacao Facility drum mixer was leaking aggregate from two (2) different locations. On Thursday (July 20, 2023), Mr. Acosta was asked about these leaks and explained that repair parts had been ordered.
- The Humacao Facility is partially owned by Harry Auto Kool, Inc.

According to PRA representatives, one goal of the plant managers and operators is to match production and distribution sales. At the end of the day, all silos are inspected to confirm they are empty. Unused material is piled on-property and recycled.

Diesel fuel is stored and distributed to outbound trucks loaded with hot mix and onsite equipment (e.g., front-end loader).

Table 2: Storage Capacities

	Operational Silo (tons)	PREPA Fuel (gallons)	Diesel Fuel (gallons)	Liquid Asphalt (gallons)
Carolina	3 x 175 ton	*	*	1 x 20,000 gallon 1 x 30,000 gallon
Salinas	1 x 100 ton**	1 x 10,000 gallon	2 x 2,000 gallon	1 x 24,000 gallon 1 x 14,000 gallon
Caguas	2 x 150 ton	2 x 8,000 gallon	2 x 2,000 gallon 1 x 8,000 gallon	1 x 30,000 gallon
Barranquitas	2 x 110 ton	2 x 8,000 gallon	1 x 4,000 gallon	1 x 20,000 gallon
Humacao	2 x 100 ton	2 x 8,000 gallon	1 x 1,000 gallon	1 x 20,000 gallon
* This information was not collected by the inspectors.				
** The facility has a second 100-ton silo which was inoperable during the inspection.				

Liquid Asphalt

All PRA Facilities tanks were maintained at approximately 300°F to maintain a low viscosity. The sulfur content of the fuel oil was not confirmed during the inspection because these records have been shared as part of the 114-RFI. Each Facility received liquid asphalt via tanker truck. PRA owns a liquid asphalt marine terminal in Guayanilla, PR.

Atop each storage tank is a CECO mist elimination filter (Model Number: TVF-40). Each filter system is equipped with a pressure drop sensor. Mr. Acosta was not able to characterize the performance of the filter or the contents of the filter containers. Specifically, he did not know if they contained activated carbon. The inspectors stated that activated carbon would require occasional testing for breakthrough (i.e., volatile organic compounds) to achieve proper pollution capture, further pressure drop may not be an accurate indicator of performance. On Tuesday,

July 18, 2023, in between inspections, Mr. Lange spoke to a CECO manufacturer representative who characterized performance expectations and shared a factsheet of the equipment.

Above ground pipes transport liquid asphalt to the drum mixer. Periodically, to prevent clogging, liquid asphalt is pumped backwards. There is a capture reservoir but judging from the small amount of cooked liquid asphalt on the side of the tank, there is occasional spillage.

- At the Carolina Facility, the inspectors observed a 9,000-gallon tanker truck delivery. The inspectors observed the connection and beginning of transfer. Staff indicated that the transfer process requires a two-person crew to open valves and guard against overflow; the process takes approximately 30 minutes. As the tanks filled a low volume of head space was displaced and the tank emissions were visible.
- At the Humacao Facility, mist was visible exiting the top of the CECO filter. The pressure gauge was cloudy and was not legible due to an opaque film.

Table 3: Liquid Asphalt heating and Mist Elimination

	CECO Filter Pressure drop (inches of water)	Pressure Gage, Next Calibration
Carolina	0; Full of water	Not legible.
Salinas	0; 0.8	Both - Oct. 2023
Caguas	0	Not legible.
Barranquitas	0	Not legible.
Humacao	Not legible.	Not legible.

Particulate Control

PRA Facilities used a water truck to reduce road and parking lot fugitives. Fugitives from aggregate storage piles and front loader activity was managed with sprinklers. Sprinkler heads were approximately 10 feet high. These sprinklers also increase the material moisture. The conditions of the raw materials are measured before production begins. There is automation with the addition of ingredients. High moisture in the raw materials (e.g., gravel, sand) can affect weight and must be accounted for.

Each Facility had procedures in place to maintain baghouse performance. Specific maintenance activities include frequent pulses (which will breakup filter cake), measuring baghouse pressure drop, and periodic inspections. At the Carolina facility, Mr. Rosa showed the inspectors a photo of a failed/ripped filter bag that was encountered at the last inspection.

The Humacao Facility baghouse pressure drop gage read zero inches of water. On Thursday (July 20, 2023) Mr. Acosta was asked about this issue; he indicated this could be the result of a clog in the pressure line and stated that a repair would be initiated.

Table 4: Particulate Control Devices

	Cyclone Present	Baghouse Pressure Drop (inches of water)	Pressure Gage, Next Calibration
Carolina	No	1.3	Not legible
Salinas	Yes	3.4	Oct. 2023
Caguas	No	3.5	Oct. 2023
Barranquitas	No	3.2	Oct. 2023
Humacao	Yes	0.2	2023 (Difficult to read month)

Power Generation

Four (4) of the five (5) PRA Facilities had a generator onsite.

The Salinas Facility used LUMA (Puerto Rico power grid operator) 120 volts (V) electricity to power the administrative building. The laboratory required 480 V produced by an onsite generator to power production equipment (e.g., mixer, baghouse fans). The situation at the Barranquitas Facility is similar. According to the Facility representatives, the voltage provided by the power grid operated by LUMA is insufficient to start up the production equipment. The onsite generator is used each day of operation to begin production.

PRA Caguas Plant had a 534 horsepower (HP) emergency generator onsite, but it was not connected to any equipment. The inspectors could not read the hours of operation because the display was electronic.

Table 5: Generator Details

	Generator Status	Manufacture; Size	Operating Hours
Carolina	Emergency generator	Detroit Diesel; 1000 HP	4,138-hours
Salinas	Used during production	Cyclonetic; 1000 HP	Not able to read. Noisy and hearing protection unavailable.
Caguas	Disconnected	Caterpillar; 534 HP	Digital display disconnected.
Barranquitas	Used at each startup	Caterpillar; 546 HP	14,455-hours
Humacao	No generator onsite.	-	-

Areas of Concern

1. Production information provided in 114 RFI responses:

There were some notable occurrences in the production information and operating hours of the facilities submitted by PRA in response to the 114 RFI. These were addressed by facility operators with the following responses:

- Carolina – Mr. Acosta was asked about the Carolina Facility inconsistency with hours of operation and production trend. Specifically, production in 2022 increased by approximately 90,000 tons or a 50% increase. Mr. Acosta stated that no additional equipment or modifications had been made to increase production in 2022.

- Salinas – The Facility operated less than 200 hours in 2022. Mr. Ortiz confirmed that the facility capacity is underutilized, and explained that there are competitors in close proximity, and that production in 2023 has been higher.
- Two Facilities (i.e., Barranquitas, Caguas) have restricted operations, weekdays from 6am to 6pm. Preventive maintenance, including an internal baghouse inspection, is scheduled for each Saturdays.

2. Missing Equipment

The 2021 EPA inspection of Carolina was discussed and specific acknowledgment that the active air permit, issued in 2019, included a single liquid asphalt storage tank. Mr. Acosta indicated that DNER had still not been notified that the permit contained an incomplete list of emission units. The inspectors also observed four (4) military storage tanks store diesel fuel and have a max capacity of 36,000-gallons each. Mr. Acosta indicated that 2 were empty.

The inspectors recommend that PRA catalogue all emission units located at each Facility and compare the list with active air permit. All discrepancies should be communicated to DNER. If equipment exists onsite that is operated or owned by a second party that should also be communicated. The inspectors also recommend that air permit renewal permit applications be submitted where active air permits are expired. Do not delay those applications until ownership changes are recognized.

3. Citizen Complaints

Mr. Acosta indicated that the Carolina plant occasionally receives citizen complaints, but they are not logged. Mr. Acosta explained that odors can be attributed to liquid asphalt tank filling and indicated that liquid asphalt manufactured in Texas has a stronger odor. Mr. Acosta also indicated that neighbors have complained about fugitive dust accumulating on vehicles.

Mr. Acosta indicated that the Barranquitas Facility became aware of a citizen complaint in a local newspaper article. He explained that complaints are often filed with the regulatory authority DNER.

The inspectors recommended that citizen complaints should be catalogued. These records can document improvements in pollution control strategies and confirm perceptions like Mr. Acosta's comment that liquid asphalt received from Texas has stronger odors.

Inspection Report Sign-Off

Lead Inspector's Name: Alex Rivera

Rivera, Alex Digitally signed by Rivera,
Alex
Date: 2023.09.14
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Assisting Inspector's Name: Gloria Díaz-Galarza

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Additional Assisting Inspector's Name: Bryan Lange

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Supervisor's Name: Nancy Rodríguez

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Carolina - PR Asphalt

Date	Description	Photo #	Time	Comments
7/17/2023	3 hot mix silos	IMG-2520	9:49 AM	Product entering one on the right; fugitive PM is visible.
7/17/2023	Baghouse exhaust with storage tank in background	IMG-2521	9:52 AM	Poor conditions for a visible emissions observation.
7/17/2023	Liquid asphalt storage tank, product receiving area hose.	IMG-2523	10:08 AM	
7/17/2023	Liquid asphalt storage tank, cooked product on the side of the tank.	IMG-2524	10:09 AM	Periodically, to prevent clogging, liquid asphalt is pumped backwards.
7/17/2023	Front end loader adding raw materials to the production line.	IMG-2526	10:12 AM	
7/17/2023	Product dropped onto silo conveyor.	IMG-2533	10:14 AM	
7/17/2023	Side view of dryer. Visible is piping that conveys liquid asphalt into the dryer.	IMG-2534	10:14 AM	
7/17/2023	Control room screen #1 showing operational details for the dryer burner and baghouse.	IMG-2536	10:17 AM	
7/17/2023	Control room screen #2 showing moisture of virgin materials.	IMG-2538	10:33 AM	
7/17/2023	Control room screen #3 showing the constituents in a batch, type S-75.	IMG-2539	10:37 AM	
7/17/2023	Conveyor moving aggregate into the dryer.	IMG-2540	10:47 AM	
7/17/2023	Conveyor moving aggregate into the dryer. Visible in the background is the water tanker used for fugitive dust control.	IMG-2541	10:47 AM	
7/17/2023	Two liquid asphalt storage tanks. Visible are the CECO mist elimination filters.	IMG-2542	10:48 AM	
7/17/2023	Baghouse pressure gage.	IMG-2543	10:50 AM	
7/17/2023	Baghouse pressure gage control system.	IMG-2544	10:51 AM	
7/17/2023	Mr. Rosa's phone showing a photograph of a failed bag documented by staff during the most recent inspection.	IMG-2545	10:52 AM	
7/17/2023	Latex storage tank.	IMG-2546	10:55 AM	An uncommon hot mix ingredient.
7/17/2023	Diesel generator, hours of operation.	IMG-2547	10:56 AM	
7/17/2023	Diesel generator, hours of operation from a second angle.	IMG-2548	10:56 AM	
7/17/2023	Diesel generator, name plate.	IMG-2549	10:56 AM	
7/17/2023	Diesel generator.	IMG-2550	10:56 AM	
7/17/2023	#1 CECO mist elimination filter pressure gauge.	IMG-2551	10:59 AM	
7/17/2023	#1 CECO mist elimination filter name plate.	IMG-2553	10:59 AM	
7/17/2023	View from top of liquid asphalt storage tank; visible is piping that conveys liquid asphalt into the dryer.	IMG-2554	11:00 AM	
7/17/2023	#2 CECO mist elimination filter name plate.	IMG-2555	11:01 AM	
7/17/2023	#2 CECO mist elimination filter pressure gauge.	IMG-2556	11:01 AM	
7/17/2023	Liquid asphalt tanker truck on scale.	IMG-2558	11:02 AM	
7/17/2023	Liquid asphalt paper receipt #1.	IMG-2559	11:07 AM	
7/17/2023	Liquid asphalt paper receipt #2.	IMG-2560	11:07 AM	
7/17/2023	Liquid asphalt storage tank, receiving product.	IMG-2561	11:14 AM	Mist visible. Exhaust bypasses the CECO mist elimination filter.
7/17/2023	Four shipping container diesel storage tank.	IMG-2566	11:15 AM	Unclear if these exist on the air permit.
7/17/2023	Close up of one shipping container diesel storage tank.	IMG-2567	11:17 AM	



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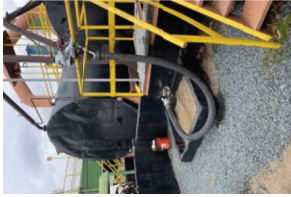
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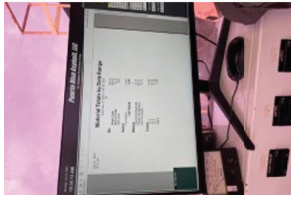
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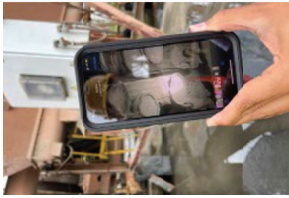
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IMG-2550.jpg



IMG-2551.jpg



IMG-2552.jpg

Salinas - PR Asphalt

Date	Description	Photo #	Movie #	Time	Comments
7/19/2023	2 hot mix silos	IMG-2643	-	10:13 AM	
7/19/2023	Wide view of equipment including the PREPA storage tank, liquid asphalt storage tank, and control room.	IMG-2644	-	10:14 AM	
7/19/2023	#1 CECO mist elimination filter pressure gauge and name plate.	IMG-2645	-	10:15 AM	
7/19/2023	#2 CECO mist elimination filter pressure gauge and name plate.	IMG-2646	-	10:16 AM	
7/19/2023	Wide view of equipment including the liquid asphalt storage tank, silo, and lab.	IMG-2647	-	10:16 AM	
7/19/2023	Wide view of equipment including the cyclone prefilter, end of dryer, and final product conveyor to silo.	IMG-2648	-	10:16 AM	
7/19/2023	Inside of retaining wall for the liquid asphalt and PREPA fuel storage tanks.	IMG-2649	-	10:18 AM	
7/19/2023	Emergency generator name plate	IMG-2650	-	10:20 AM	To loud to record hours of operation. Not equipped with hearing protection.
7/19/2023	Boiler, maintains temperature in the liquid asphalt storage tanks.	IMG-2651	-	10:21 AM	
7/19/2023	Gas-oil burner	IMG-2652	-	10:22 AM	
7/19/2023	Gas-oil burner, hours of operation not legible.	IMG-2653	-	10:22 AM	
7/19/2023	Dryer with cyclone prefilter.	IMG-2654	-	10:25 AM	
7/19/2023	Two drum dryer; cyclone prefilter.	IMG-2655	-	10:27 AM	
7/19/2023	Baghouse pressure gauge.	IMG-2656	-	10:29 AM	
7/19/2023	Inside of retaining wall for fuel storage tanks.	IMG-2657	-	10:30 AM	
7/19/2023	Wide view of equipment including the cyclone prefilter, baghouse, two drum dryer, and fuel storage tank.	IMG-2658	-	10:33 AM	
7/19/2023	Baghouse pressure gauge; second angle.	IMG-2659	-	10:35 AM	
7/19/2023	Baghouse pressure gauge.	-	IMG-2660	10:35 AM	Error with file.
7/19/2023	Wide view of equipment including the cyclone prefilter and dryer.	IMG-2661	-	10:47 AM	



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Caguas - PR Asphalt

Date	Description	Photo #	Time	Comments
7/18/2023	Virgin raw material conveyor.	IMG-2570	8:56 AM	
7/18/2023	Virgin raw material conveyor with baghouse and stack in the background.	IMG-2571	8:56 AM	
7/18/2023	Conveyor transporting final hot mix product into one of two silos.	IMG-2572	8:56 AM	
7/18/2023	Truck expecting a load of final hot mix product.	IMG-2573	8:57 AM	
7/18/2023	Control room screen #1, baghouse parameters (i.e., pressure reading, damper position, inlet temp).	IMG-2574	9:35 AM	
7/18/2023	Control room screen #2, production details including: dryer burner fuel flow, virgin aggregate and liquid asphalt throughput rates (tons/hr).	IMG-2575	9:35 AM	
7/18/2023	Baghouse exhaust; no visible emissions.	IMG-2576	9:46 AM	
7/18/2023	Dryer with burner visible.	IMG-2577	9:46 AM	
7/18/2023	Virgin aggregate storage piles. Sprinklers visible to manage moisture and fugitive dust.	IMG-2578	9:51 AM	
7/18/2023	Three liquid storage tanks. The color of the liquid asphalt tank is black and PREPA fuel is stored in two vertical white tanks.	IMG-2579	9:51 AM	
7/18/2023	Baghouse and three liquid storage tanks.	IMG-2580	9:51 AM	
7/18/2023	Baghouse pressure gauge.	IMG-2581	9:52 AM	
7/18/2023	#1 CECO mist elimination filter pressure gage and name plate	IMG-2582	9:57 AM	
7/18/2023	Liquid asphalt storage tank, cooked product on the side of the tank.	IMG-2583	10:08 AM	
7/18/2023	Liquid asphalt storage tank, cooked product on the side of the tank.	IMG-2584	10:08 AM	
7/18/2023	Liquid asphalt storage tank, cooked product on top of the tank.	IMG-2585	10:08 AM	
7/18/2023	Horizontal diesel fuel liquid storage tank at edge of the property.	IMG-2586	10:08 AM	
7/18/2023	Two horizontal PREPA fuel liquid storage tanks.	IMG-2587	10:09 AM	
7/18/2023	Inside of retaining wall for the two horizontal PREPA fuel liquid storage tanks.	IMG-2588	10:10 AM	
7/18/2023	Inside of retaining wall for the horizontal PREPA fuel liquid storage tank at edge of the property.	IMG-2589	10:17 AM	
7/18/2023	Caterpillar generator name plate.	IMG-2590	10:33 AM	
7/18/2023	Caterpillar generator name plate with serial number details.	IMG-2591	10:33 AM	
7/18/2023	Caterpillar generator, digital operating hours display. Display is blank because the generator is not operating.	IMG-2592	10:33 AM	
7/18/2023	Caterpillar generator, cords are disconnected.	IMG-2593	10:34 AM	



IMG-2593.jpg



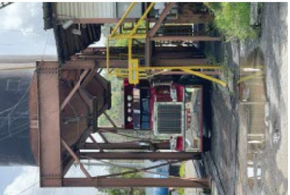
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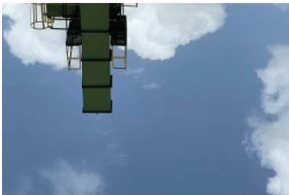
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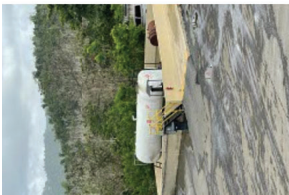
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Barranquitas - PR Asphalt

Date	Description	Photo #	Time	Comments
7/20/2023	Baghouse pressure gauge.	IMG-2665	10:29 AM	
7/20/2023	Dryer exit and conveyor for final product.	IMG-2666	10:30 AM	
7/20/2023	Dryer inlet with virgin materials conveyor.	IMG-2667	10:31 AM	
7/20/2023	Liquid asphalt storage tank.	IMG-2668	10:36 AM	
7/20/2023	Emergency generator name plate.	IMG-2669	10:41 AM	
7/20/2023	Emergency generator name plate.	IMG-2670	10:41 AM	
7/20/2023	Emergency generator, hours of operation.	IMG-2671	10:43 AM	
7/20/2023	#1 CECO mist elimination filter pressure gauge and name plate.	IMG-2672	10:46 AM	
7/20/2023	#1 CECO mist elimination filter.	IMG-2673	10:48 AM	
7/20/2023	Liquid asphalt storage tank; overflow valve.	IMG-2674	10:49 AM	
7/20/2023	Liquid asphalt storage tank; boiler exhausts here after heating asphalt.	IMG-2675	10:49 AM	
7/20/2023	Liquid asphalt storage tank, product receiving area hose.	IMG-2676	10:51 AM	



IMG-2674.jpg



IMG-2675.jpg



IMG-2669.jpg



IMG-2670.jpg



IMG-2671.jpg



IMG-2672.jpg



IMG-2673.jpg



IMG-2676.jpg



IMG-2665.jpg



IMG-2666.jpg



IMG-2667.jpg



IMG-2668.jpg

Humacao - PR Asphalt

Date	Description	Photo #	Movie #	Time	Comments
7/18/2023	Form #1, documenting daily fuel consumption and hours of operation.	IMG-2594	-	12:47 PM	
7/18/2023	Form #2, documenting visible emission, condition of filters.	IMG-2595	-	12:48 PM	
7/18/2023	2 hot mix silos	IMG-2596	-	1:06 PM	
7/18/2023	Liquid asphalt storage tank. Visible is the CECO mist elimination filter.	IMG-2597	-	1:07 PM	
7/18/2023	Liquid asphalt delivery truck.	IMG-2598	-	1:08 PM	
7/18/2023	Liquid asphalt delivery received into the storage tank.	IMG-2599	-	1:09 PM	
7/18/2023	Inside of retaining wall for the liquid asphalt storage tank.	IMG-2600	-	1:10 PM	
7/18/2023	CECO mist elimination filter name plate.	IMG-2601	-	1:11 PM	
7/18/2023	CECO mist elimination filter pressure gauge.	IMG-2602	-	1:11 PM	Gauge is not legible.
7/18/2023	CECO mist elimination filter pressure gauge.	IMG-2603	-	1:11 PM	Gauge is not legible.
7/18/2023	Breathing emissions exiting the top of the liquid asphalt storage tank.	-	IMG-2604	1:11 PM	
7/18/2023	Boiler, hours of operation.	IMG-2605	-	1:12 PM	
7/18/2023	Boiler, paper documentation.	IMG-2606	-	1:13 PM	Paperwork was saturated and barely illegible. It was assumed that unfolding the paperwork would further damage it.
7/18/2023	Inside of retaining wall for the liquid asphalt storage tank.	IMG-2607	-	1:14 PM	
7/18/2023	Liquid asphalt storage tank, cooked product on the side of the tank.	IMG-2608	-	1:14 PM	
7/18/2023	Baghouse pressure gage.	IMG-2609	-	1:16 PM	
7/18/2023	Baghouse pressure gage control system.	IMG-2610	-	1:16 PM	
7/18/2023	Dryer and conveyor transporting final hot mix product into silos.	IMG-2611	-	1:17 PM	
7/18/2023	An accumulation of raw material that had leaked from the dryer.	IMG-2612	-	1:18 PM	
7/18/2023	Two vertical storage tanks containing PREPA fuel.	IMG-2613	-	1:20 PM	
7/18/2023	Inside of retaining wall for the PREPA fuel storage tanks.	IMG-2614	-	1:20 PM	
7/18/2023	Video of the shadow of emissions exiting the baghouse stack	-	IMG-2615	1:23 PM	
7/18/2023	Baghouse stack.	IMG-2616	-	1:24 PM	Poor conditions for visible emission observation.
7/18/2023	Raw material leaking from the dryer.	IMG-2617	-	1:24 PM	
7/18/2023	Raw material leaking from the dryer.	-	IMG-2618	1:25 PM	
7/18/2023	Truck after receiving a load of final hot mix product.	IMG-2619	-	1:26 PM	
7/18/2023	Wide view of equipment including the baghouse, final product silos, and liquid asphalt storage tank.	IMG-2620	-	1:27 PM	
7/18/2023	Mist emissions exiting the CECO filter.	-	IMG-2621	1:27 PM	
7/18/2023	Wide view of equipment including the baghouse, final product silos, and liquid asphalt storage tank.	IMG-2622	-	1:28 PM	Staff indicated the green cylindrical tank on the far left was not operational.
7/18/2023	Truck expecting a load of final hot mix product. In the background is the administrative and laboratory space.	IMG-2623	-	1:29 PM	
7/18/2023	Ownership sign located on exterior of the administrative building.	IMG-2624	-	1:29 PM	
7/18/2023	Equipment including the dryer, cyclone prefilter, and baghouse.	IMG-2625	-	1:33 PM	
7/18/2023	Final product conveyor to the silos.	IMG-2626	-	1:33 PM	
7/18/2023	Wide view of equipment including the baghouse, final product silos, and liquid asphalt storage tank.	IMG-2627	-	1:50 PM	The approximate location of staff's routine visible emission observations.



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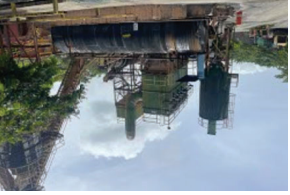
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IMG-2611.jpg



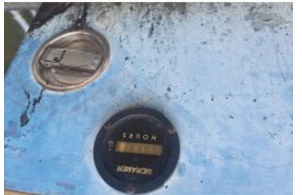
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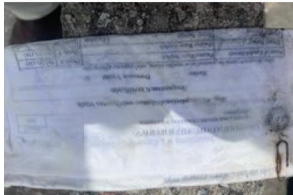
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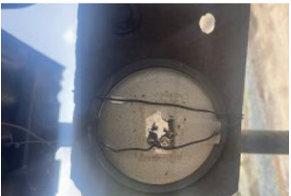
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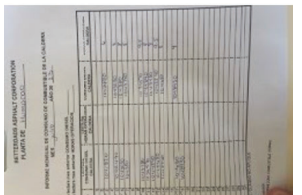
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IMG-2603.jpg



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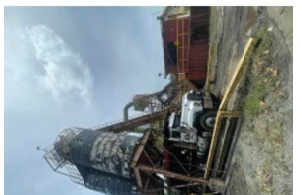
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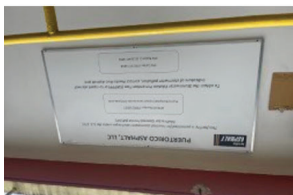
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