CLEAN WATER ACT COMPLIANCE EVALUATION INSPECTION REPORT
U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 5

Purpose: Compliance Evaluation and Stormwater Inspection

Facility: Apollo Colors Inc. (Apollo Colors)
1550 Mound Road
Rockdale, Illinois 60436

Date of Inspection: October 12, 2022

EPA Representatives:

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Facility Representatives:

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Report Prepared by: Ray Cullen

Inspector Signature: RAYMOND CULLEN Digitally signed by RAYMOND CULLEN Date: 2022.11.28 14:24:13 -06'00'
Ray Cullen

Approver Name and Title: Ryan J. Bahr, Section 2 Supervisor
WECAB

Approver Signature and Date: Ryan Bahr Digitally signed by Ryan Bahr Date: 2022.11.29 13:44:47 -06'00'

Purpose of Inspection:

Val Dooling and I, from EPA Region 5's WECAB, conducted an unannounced compliance evaluation and stormwater inspection of Apollo Colors' Rockdale, Illinois site ("the Facility") to assess its compliance with the Clean Water Act (CWA) and applicable permits. The Facility operates under City of Joliet-issued Wastewater Discharge Permit No. J2500 ("Permit"), which expires on September 30, 2024. In accordance with the CWA, the general pretreatment regulations at 40 C.F.R. Part 403 and the city's sewer use ordinance, the Permit authorizes Apollo Colors to discharge non-residential wastewater to the city's public sewer system in compliance with requirements set forth therein. The city's sewer use ordinance is currently codified through Ordinance No. 18381, which was enacted on July 19, 2022, and set forth in Chapter 31 of the city's Code of Ordinances. EPA approved the city's pretreatment program on April 21, 1987.

The Facility also has had industrial stormwater permit coverage under General National Pollutant Discharge Elimination System Permit No. ILR001116 since June 25, 1993, and which was most recently renewed on June 14, 2017. This is the first time that EPA has inspected the facility in at least the last 10 years, and according to EPA's Enforcement and Compliance History Online (ECHO) website, the Illinois Environmental Protection Agency most recently inspected it for the CWA in 2017.

Arrival Time: 10:05 a.m.
Departure Time: 2:25 p.m.

☒ Credentials presented
☒ CBI protection assurances discussed

The following information was obtained verbally from Mr. Hulbert and Mr. McCauley during the inspection unless otherwise noted. Mr. Hulbert and Mr. McCauley have been employed at the Facility for 28 and 18 years, respectively.

Facility Background/Process Description:

Apollo Colors manufactures customer-driven organic azo presscake pigments of various shades and flush colors for the printing ink industry (e.g., lithography, periodicals, and packaging). At the time of the inspection, there were 71 employees at the Facility. The 200,000-square foot Facility is separated into two departments: Pigment and Flush. The majority of production occurs in Building 2, located on the west side of the site and which was built in 1990. Building 1 on the east side was built in 1975 and was the original production area. *See* Attachment 1 for site maps. Due to current conflict in Europe, where most of Apollo Colors' customers are located, production decreased in or around September 2022 from 24 hours/day, Monday through Friday, to 24 hours/day, Monday through Thursday, in the Pigment Department and to 10 hours/day, Monday through Thursday, in the Flush Department. Total product shipments to Europe have decreased from 50 to 60 percent to approximately 20 percent. Due to global supply chain problems, Apollo Colors has been ordering larger volumes of raw materials and storing more products on-site.

All production at the Facility occurs indoors, along with raw material and product storage. Outside, Apollo Colors keeps empty, used totes that it either sells or cuts up. It imports azo intermediates from China, India, and Brazil. It keeps two of these intermediates – 3,3'-Dichlorobenzidine (DCB) for yellow pigment and o-Dianisidine dihydrochloride (ODA) for orange – in locked, 300-gallon tanks in an isolated, diked room under negative pressure. Special training, a respirator, showers before entering and after leaving, and annual blood tests are required for anyone utilizing this room. Every weekend or whenever a tank needs to be replaced, Apollo Colors decontaminates the room with bleach. Every 5 years or so, it relies on an outside contractor for a more thorough, full decontamination.

In the Pigment Department, Apollo Colors creates aromatic azo compounds from amines, which are then coupled with activated aromatic compounds to create azo dyes in solution (for the red pigment process, a diazo is created; for the yellow and orange pigment processes, a tetrazo is created). Next, it adds metal to the azo dye (strontium, barium, or calcium, but mostly calcium chloride) to form a slurry of roughly 5 to 9 percent pigment with the remainder being water and salts. Aside from small batches of surfactants, the addition of ingredients is computer controlled. Since this reaction is exothermic, the pigment remains in the water phase to prevent overheating. The pigment slurry is then automatically piped to a filter press to increase the solids content to 20 to 30 percent and wash out salts via equipped water valves. The red, yellow, and orange pigment processes have three, six, and two filter presses, respectively. The resulting water-based presscake is then sold directly to customers (for red, yellow, orange), dried in an oven and sold as a powder (for Orange 16, with 97 percent solids content), or used internally in the Flush Department. Different shades are created through minor adjustments. Yellow pigment, for example, has 20 different formulations. Apollo Colors also processes blue pigment via a physical process in which particles are reduced in a media mill from 3 to 0.5 microns. It is sold as concentrated flush color and concentrated ink. Any off-spec material is blended into other products.

In the Flush Department, the presscake is mixed with oils/varnishes and resins (typically linseed oil) in flushers and/or Drais turbulent mixers to form hydrophobic pigment particles, which are then separated out in oil with the water decanted. The pigment mixture is then dried further in a vacuum to decrease its viscosity. The flushers are located in Building 1, and the Drais mixers are located in Building 2.

The Facility's processes are regulated under the categorical standards at 40 C.F.R. Part 414 (Organic Chemicals, Plastics, and Synthetic Fibers), Subparts H (Specialty Organic Chemicals) and K (Indirect Discharge Point Sources); specifically, the pretreatment standards for existing sources at 40 C.F.R. § 414.85 and the toxic pollutant standards at 40 C.F.R. § 414.111.

Wastewater

The Facility has a deep well (production well) from which it receives non-potable water from the Village of Rockdale at a contracted rate of 170,000 to 200,000 gallons per day (gpd) and a shallow well from which it receives potable water at a rate of approximately 1,000 gpd. Radon is present in the production well water, but it does not affect product.

Approximately 90 percent of the Facility's wastewater is generated in the Pigment Department, primarily through the washing out of salts. The remaining wastewater in the Flush Department is mostly non-contact cooling water used in cooling pumps and mixers. Apollo Colors has been reducing water consumption over time by increasing the size of its production batches, with the average batch size increasing from 2 to 5 percent to 7 to 9 percent solids. The Facility also has two operational and one dormant floor scrubber (Photo 2, *see* Attachment 2) that use a caustic cleaning solution containing sodium hydroxide and glycol ether surfactant that ends up in a floor waste pit. Glycol ether in the Facility's wastewater (as listed in the Toxics Release Inventory) comes from floor cleaning; Apollo Colors has not used any in its processes for at least 10 years.

The Pigment Department is divided into two sections (red pigment and yellow/orange pigments), each with its own waste stream. The red pigment process is located in Building 1, and the yellow and orange pigment processes are located in Building 2. In each section, wastewater spills from the filter presses go to floor drains that lead to an individual floor waste pit. Wastewater from the room housing DCB and ODA is manually transferred to one of these pits. All pits are equipped with a level sensor that triggers a pump that sends the wastewater within to two 5,000-gallon polymer tanks (Photo 9) and then to a salvage press to remove suspended solids and residual color. There are five salvage presses on-site: one each for the red, yellow/orange, and blue pigment processes, one for the floor pits, and one as a backup if maintenance is required on the others. The red and yellow/orange pigment salvage presses also receive the wash water used to wash out salts from those processes' filter presses. The solid waste from the salvage presses goes to a local, non-hazardous landfill, and the wastewater is discharged to the city's sewer system. For the red pigment process, the wastewater is typically neutral, but occasionally Apollo Colors will add a base to the polymer tank to raise the pH. For the orange/yellow pigment processes, pH adjustment is usually necessary and occurs in a tank after the filter presses. Until about 6 years ago, Apollo Colors used barium chloride in the red pigment process. It pretreated the residual barium salts generated in the wastewater to barium sulfate, which it filtered out and sent to a landfill (*see* Photo 8 for the former barium pretreatment tanks, which are now treatment tanks for the red pigment process wastewater). Although barium use has ceased, there is currently a dormant stock of barium chemicals on-site.

In the Flush Department, there are separate floor waste pits for the flushers in Building 1 and the Drais mixers in Building 2, referred to as the east and west flush pits, respectively. Both pits have an oil-extracting skimmer. Wastewater from the pits flows to fiberglass tanks where diluted sodium hydroxide is automatically added to raise the wastewater's pH to 6-9 before it heads to a salvage press. For blue pigment, diatomaceous earth is used for treatment.

Wastewater is discharged from what Apollo Colors refers to as the "EPA pit," which is located after all pretreatment processes, to a sewer that goes to the city's east wastewater treatment plant. Based on information Apollo Colors provided in its most recent permit application, the Permit states that the Facility's total average daily discharge flowrate is 164,500 gpd, with 155,300 gpd coming from regulated processes. Until 2 months prior to EPA's inspection, there was no effluent flow meter. However, due to inaccuracy of the readings of this newly-installed meter caused by the discharge of wastewater from a pond owned by a nearby business to the Facility's effluent wastewater pipe, Apollo Colors instead continues to use its influent meter to determine effluent flow rate and assumes what leaves the system is equal to what enters it. Four to five

times per year, the water from the pond even backs up into the EPA pit. Apollo Colors has been trying to resolve this issue and will be meeting with the city soon to discuss. Given that its pigments contain about 80 percent water, Apollo Colors expects that once the flow meter begins taking accurate measurements, its wastewater usage charges will decrease.

Per the Permit, sampling occurs weekly (which Apollo Colors does every Wednesday) for pH, oil & grease, biochemical oxygen demand (BOD), chemical oxygen demand, total suspended solids, and copper; monthly for total phosphorous; and semiannually for the pollutants listed in 40 C.F.R. § 414.111 and the local limits. Apollo Colors conducts composite sampling at the EPA pit via a time-proportional sampler. The city also collects samples at this spot. Mr. McCauley usually conducts the semiannual monitoring in January and July, but this year, the second monitoring event was delayed until October, of which he notified the city. About a month ago, Apollo Colors installed a flow meter for flow-proportional sampling, but problems have prevented its use. Apollo Colors measures pH in-house and sends all other samples except phenol to Canal Analytical & Environmental Services (CAES). It stopped sending its phenol samples to CAES and instead now sends them to Suburban Laboratories for analysis because CAES was sending its gas chromatography – mass spectrometry samples to another laboratory, increasing the holding time. Also, for BOD in particular, it sends split samples to both laboratories and reports the average of the results. Apollo Colors pays the city $40,000 annually in surcharges for excess BOD, which occurs in the Facility's wastewater due to the presence of acetic and phosphoric acids.

After the inspection, Mr. McCauley provided at my request Discharge Monitoring Reports (DMRs) for monitoring conducted in the 1st quarter of 2021 through the 3rd quarter of 2022. In the 2nd quarter of 2021 and again in the 1st, 2nd, and 3rd quarters of 2022, the Facility discharged naphthalene in exceedance of the daily and monthly categorical limits. After the exceedance that occurred in the 2nd quarter of 2021, Apollo Colors began monitoring for this pollutant weekly instead of semiannually as is required by the Permit.

Stormwater

With regard to stormwater, as previously mentioned, all production and storage occurs indoors. There are several storm drains surrounding the northwest side of Buildings 1 and 2 in which stormwater, including Building 2 roof runoff, flows to an outfall at the south corner of the site (referred to as the west stormwater outfall). There is one other stormwater outfall at the site, located at the north corner (referred to as the east stormwater outfall), that receives stormwater from the Facility's paved parking area and Building 1 roof runoff. Apollo Colors conducts quarterly visual sampling after rainfall at these outfalls, which directly discharge to the Illinois & Michigan Canal. The east stormwater outfall is typically dry and will not have visible stormwater flowing unless there was a major precipitation event. Indirect stormwater discharge to the canal occurs from the gravel roadway and roof runoff located along the southeast perimeter of Buildings 1 and 2. Bimonthly, Apollo Colors checks the exterior of buildings for leaks and debris, especially where plows push snow and gravel, along with the tank farms. Finally, no vehicle fueling or washing occurs on-site.

After the inspection, Mr. McCauley provided me with the Facility's Stormwater Pollution Prevention Plan, prepared on April 30, 2012 and revised on August 26, 2020.

Facility Tour

We toured the Facility starting at approximately 12:30 p.m. at the east flush pit in Building 1, where we observed an oil skimmer transferring oil to a large tote that eventually will go to Safety-Kleen, Inc (Photo 1). Usually twice a month, waste from two flushers goes to this pit. At the time of the inspection, the pit was not collecting wastewater.

We walked through Building 1 past some flush salvage presses (Photo 3) and through a warehouse with drums containing oil and varnish (Photo 4) and totes containing blue and green pigment slurries and methyl esters (Photo 5). We then observed the filter presses for the red pigment process and associated treatment tanks (Photo 6).

In Building 2, we went to the pigment tower that contains the strike tanks in which raw materials react over 8 hours to produce the red and yellow pigment slurries containing 5-9 percent pigment in suspension (Photo 12). All wastewater generated in this area goes to the yellow pigment floor pit (Photo 11), which is near the yellow pigment filter presses (Photo 10). The pigment tower also contains three Mutt tanks, which serve as make-up tanks.

Next, we walked through Building 2 past the receiving dock (Photo 15) and through the boiler room, which houses two natural gas boilers that are used in the pigment process and to heat up flushes, before ending up at the West Tank Farm, which contains the majority of the Facility's raw material storage (Photos 16 and 17). Outside of the West Tank Farm, we saw the unloading dock (Photos 18 and 19). There were also hoses coming off of the southeast side of the tank farm in case its secondary containment capacity is exceeded (Photo 20).

We continued along the southwest perimeter of the Facility to the west stormwater outfall, where we observed clear water being discharged (Photos 21 and 22). Leading up to the outfall is evidence of erosion (Photos 23 and 24). Apollo Colors had placed large rocks at the discharge point to prevent further damage. Also, in case of potential catastrophic discharge, Apollo Colors installed a valve a few years ago that can shut off the stormwater being discharged from this outfall (Photo 25).

Back inside, we saw tubs of flush product (Photo 26) and a drain in this area that leads to the west flush pit (Photo 27). Like the east flush pit, it has an oil skimmer that transfers oil to a large tote (Photo 35). Nearby, we observed an employee dumping yellow pigment presscake into a mixer from a super sack with varnish being added to the mixer a minute later (Photos 32-34). Apollo Colors typically gets three or four reuses out of the super sacks.

Next, we went to the Blue Room, which contains the blue pigment media mills and storage tanks, of which there are four of each (Photos 36 and 37). Carbon steel from the mills that accumulates in the resulting blue slurry is removed in a separate vessel via a magnetized matrix (Photo 38). Drains in this room go to a floor pit. Just outside of this room is where the wastewater generated by the blue pigment process is treated (Photos 39 and 40). Nearby, we saw

the hammer mill that Apollo Colors uses to process orange pigment after it's dried in ovens (Photo 41).

A few minutes later in the east shipping area in Building 1, we observed a heavy discharge of stormwater from the building's roof, which we were told will drain to a nearby floor pit (Photo 42). At the time of the inspection, a stormwater collection tank adjacent to this discharge had a broken pump.

We passed by the red pigment production area (Photos 43 and 44) on our way to the EPA pit, into which we observed several pipes steadily discharging wastewater. Pipes leading to the pit include wastewater from the red, yellow, orange, and blue pigment process salvage presses, the floor pits salvage press, the flush department salvage press, and a reverse osmosis system. The wastewater in the pit appeared to have a red tint (Photo 45). An ISCO 4700 composite sampler is located in the room adjacent to the EPA pit (Photo 46). We did not observe a thermometer near the sampler to confirm samples are maintained at the minimum temperature.

Lastly, we went outside again to view the east stormwater outfall, where we observed clear water being discharged (Photos 47-49). We concluded touring the Facility at approximately 2:15 p.m.

Areas of Concern

We identified the following areas of concern after reviewing the information obtained during and after the inspection:

1. Apollo Colors estimates the Facility's effluent flowrate based on its influent flowrate due to its effluent flowrate monitor erroneously including the irregular discharge of wastewater from an unassociated pond into the Facility's effluent wastewater pipe.
2. During the inspection, Building 1 stormwater roof runoff steadily discharged within the building and ultimately flowed to a floor pit that receives process wastewater, diluting this stream, instead of flowing directly to the east stormwater outfall.
3. It did not appear that a thermometer was located in the ISCO 4700 composite sampler to confirm samples are kept below 4°C.
4. Composite sampling of the effluent is time, not flow-proportional.
5. The Facility continues to experience effluent exceedances of napthalene.

Records Received

We received the following records during the inspection:

1. Permit (September 30, 2024 expiration date);
2. Permit (September 30, 2020 expiration date);
3. List of raw material chemicals used at the Facility in 2021;
4. List and locations of extremely hazardous substances at the Facility;
5. Site map with storm and sewer drains and stormwater flow;
6. Stormwater & Wastewater Pollution Prevention Plan; and
7. Stormwater & Accidental Discharge and Slug Control Plan;

Mr. McCauley emailed me a list of additional requested records on October 20, 2022, including:

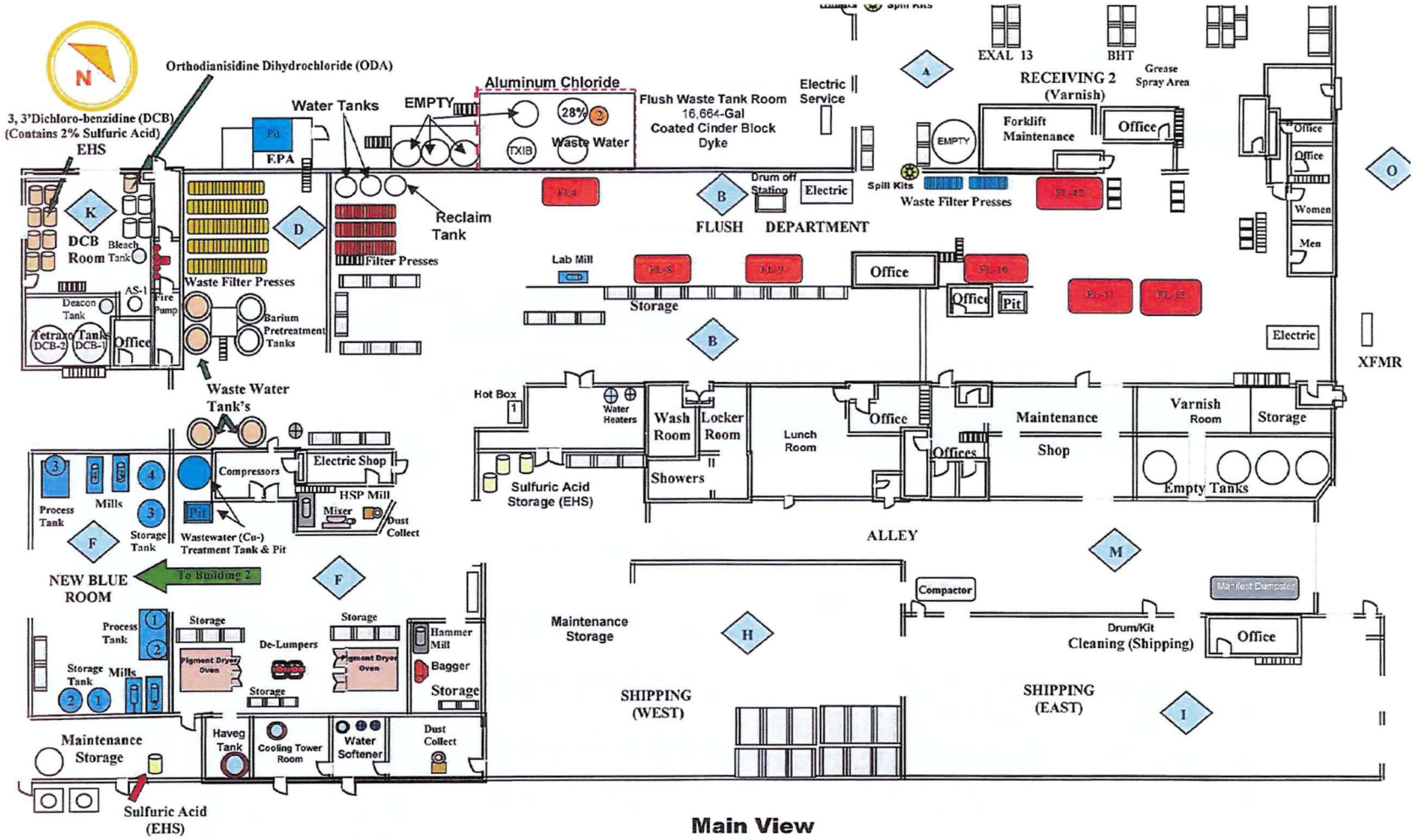
1. DMRs and associated laboratory reports and chain of custodies from the 1st quarter of 2021 through the 3rd quarter of 2022;
2. Notice of Intent for general stormwater permit dated October 17, 2013;
3. General stormwater permit ILR00 (April 30, 2014 expiration);
4. Illinois EPA letter approving general stormwater permit coverage (June 14, 2017);

Attachments

1. Site maps.
2. Photo log.

Attachment A

Site maps



Main View

1550 Mound Road (Building 1)

Ground Floor

001800

Latitude-41 30'02.50" Longitude-88 07'19.57"

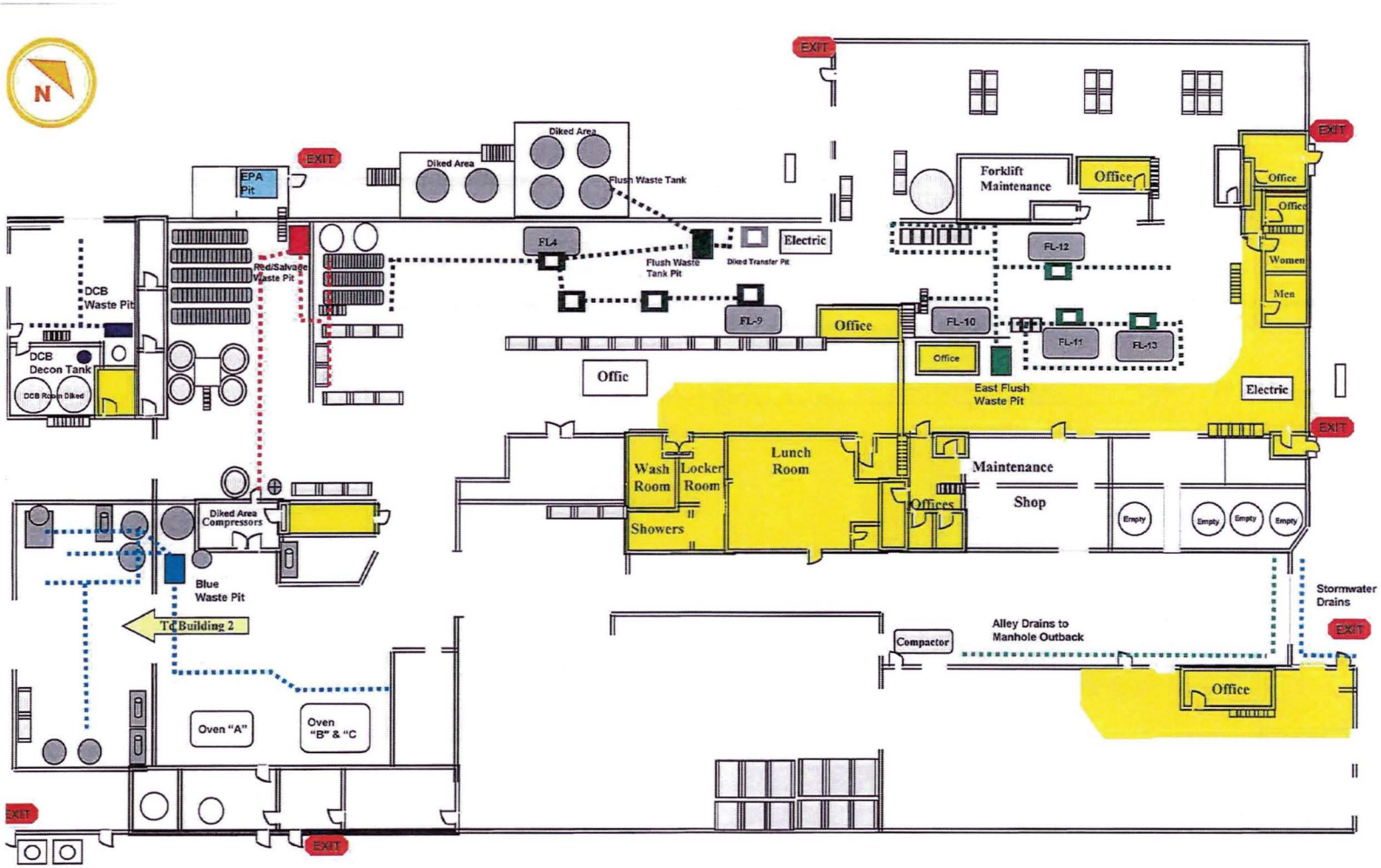
Site Map

2020-21

Apollo Colors Inc

09/13/21

Attachment "F"



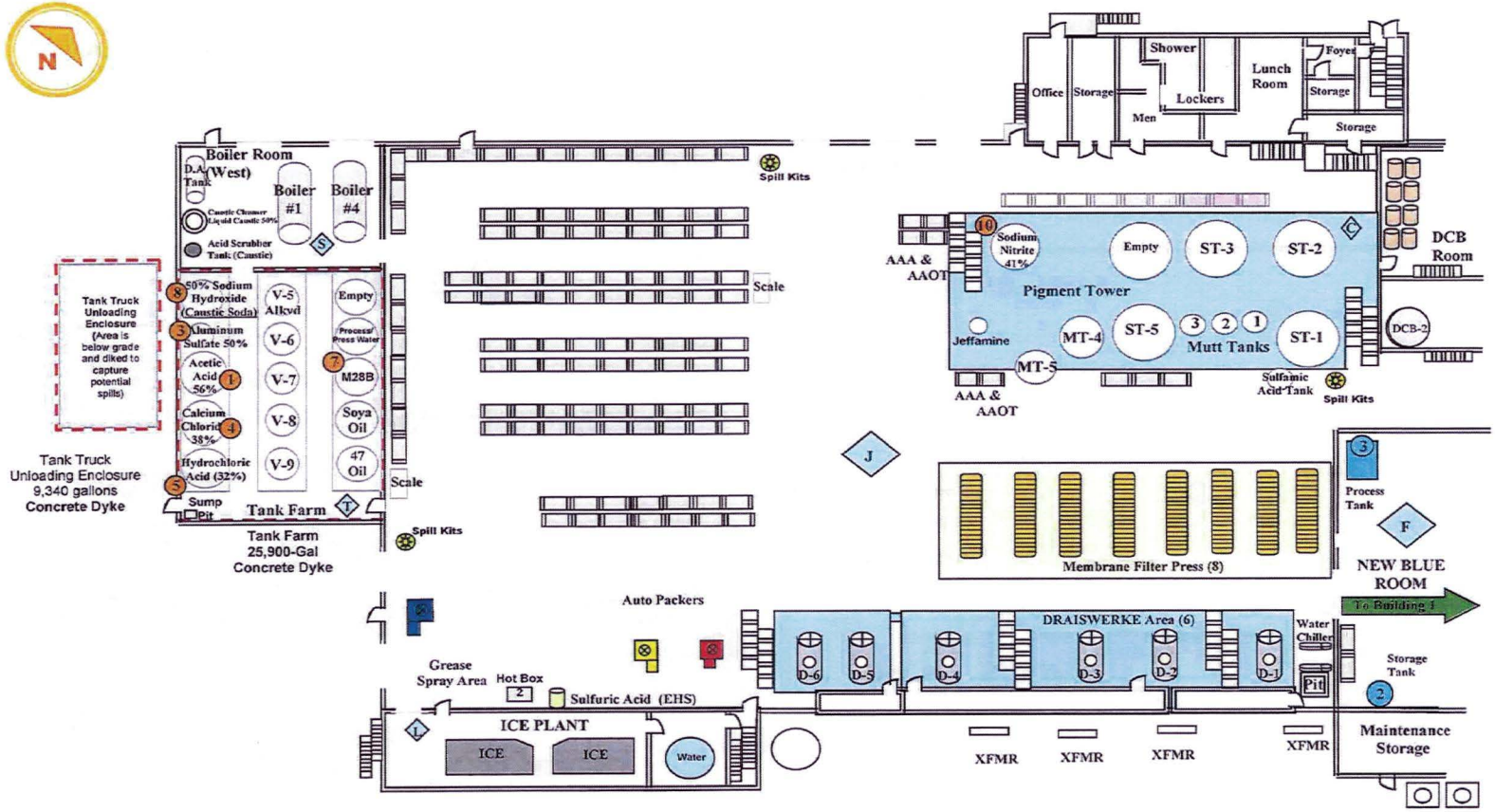
LEGEND

- Safety Zone — Bump Cap& Safety Glasses Not Required
- Waste Pits
- Catch Grating's
- DCB Waste Drains
- Red/Salvage Drains
- Flush Waste Tank Drains
- Blue Waste Drains
- Flush Waste Pit Drains
- Alley Drains

PLAN VIEW
(BUILDING 1)
Ground Floor
2021
SCALE 1" = 40'

Apollo Colors Inc

Attachment "H"



Main View

1550 Mound Road (Building 2)

Ground Floor

001800

Latitude 41 30'02.50" Longitude 88 07'19.57"

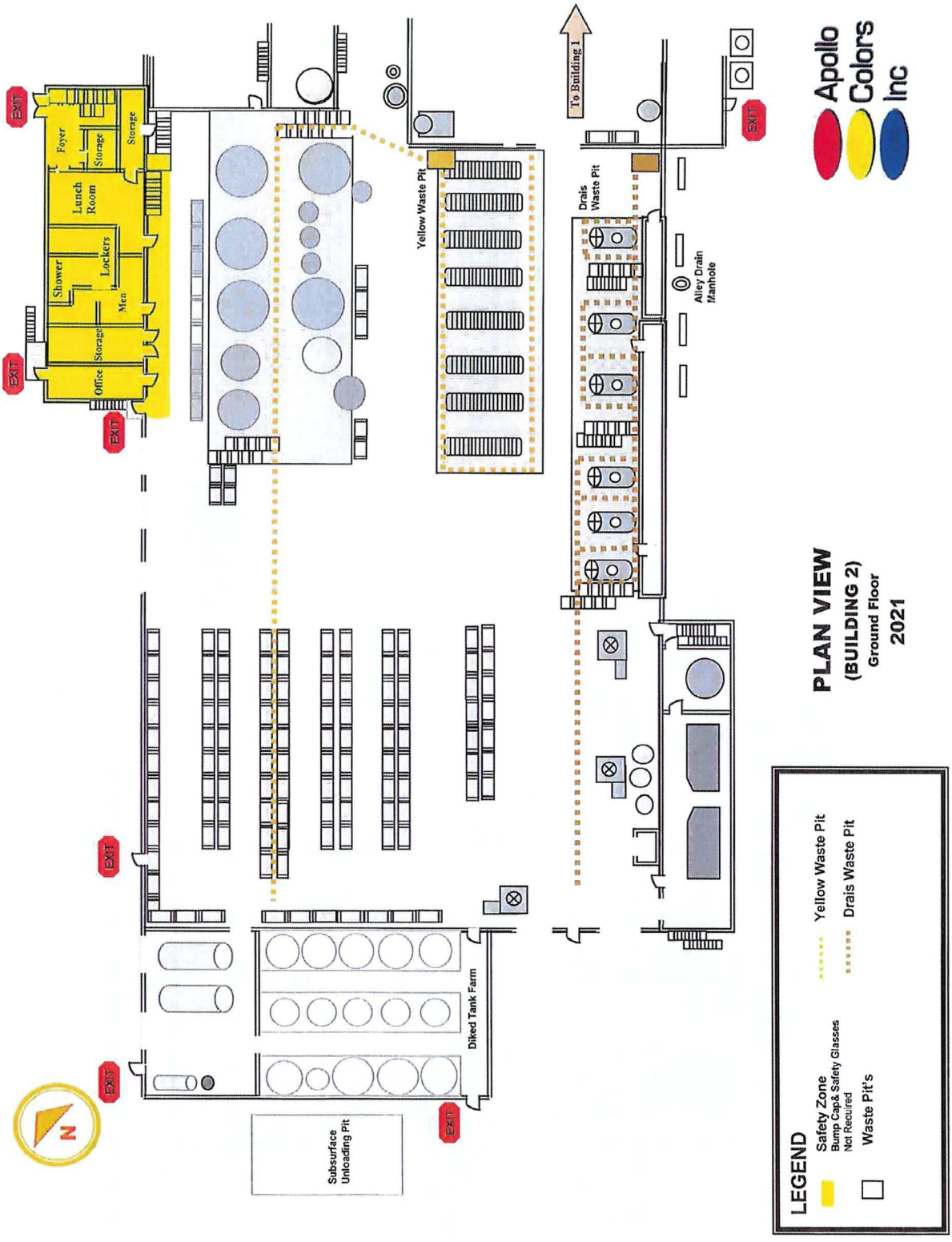
Site Map

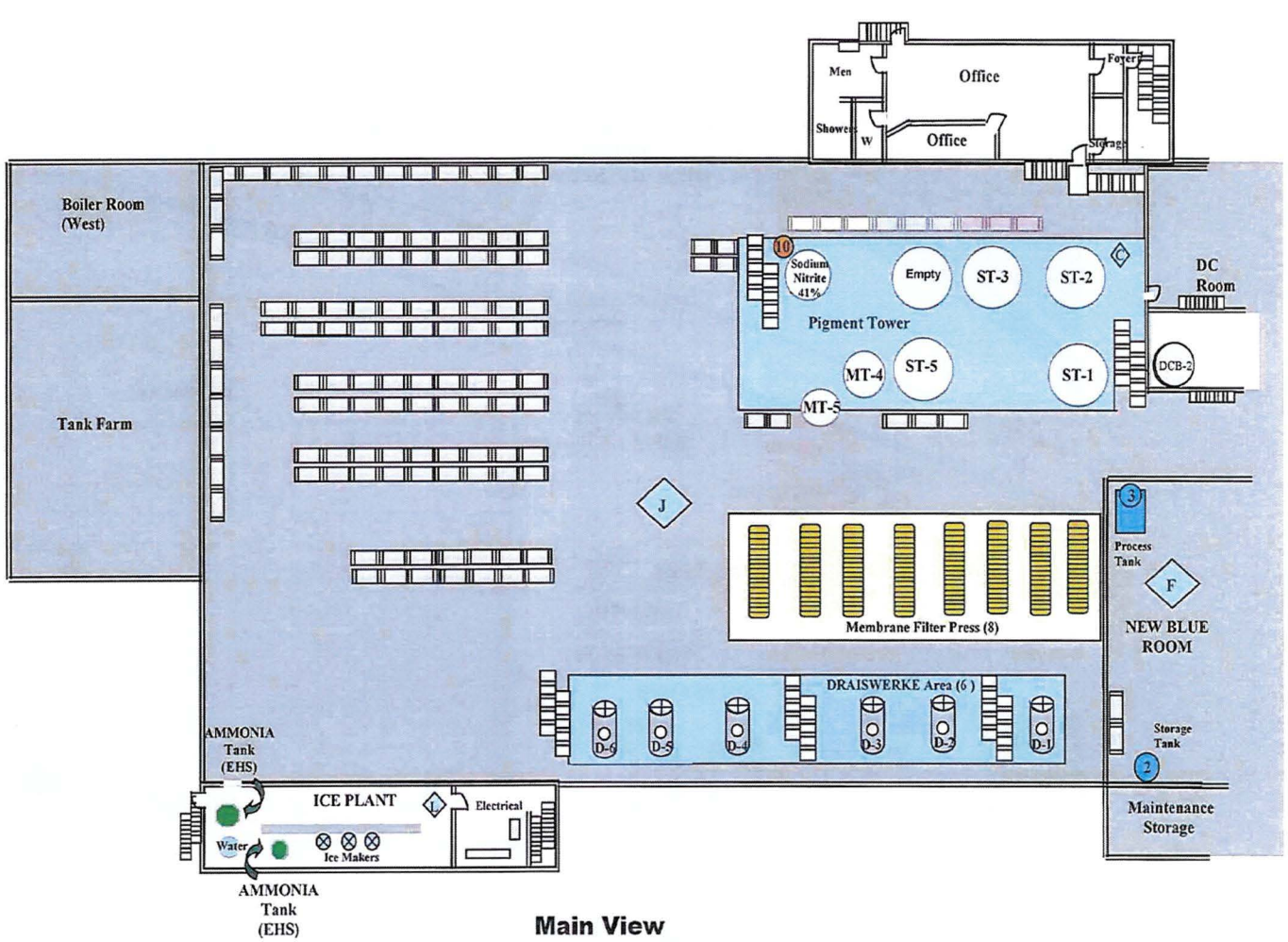
2020-21

Apollo Colors Inc

09/13/21

Attachment "H"





Main View

1550 Mound Road (Building 2)

Second Floor

001800

Latitude 41 30'02.50" Longitude 88 07'19.57"

Site Map

2020-21

Apollo Colors Inc

09/13/21

Attachment B

Photo log

Apollo Colors Inc.
Photo Log
EPA Inspection October 12, 2022
All photos taken by Val Dooling, Environmental Engineer, EPA

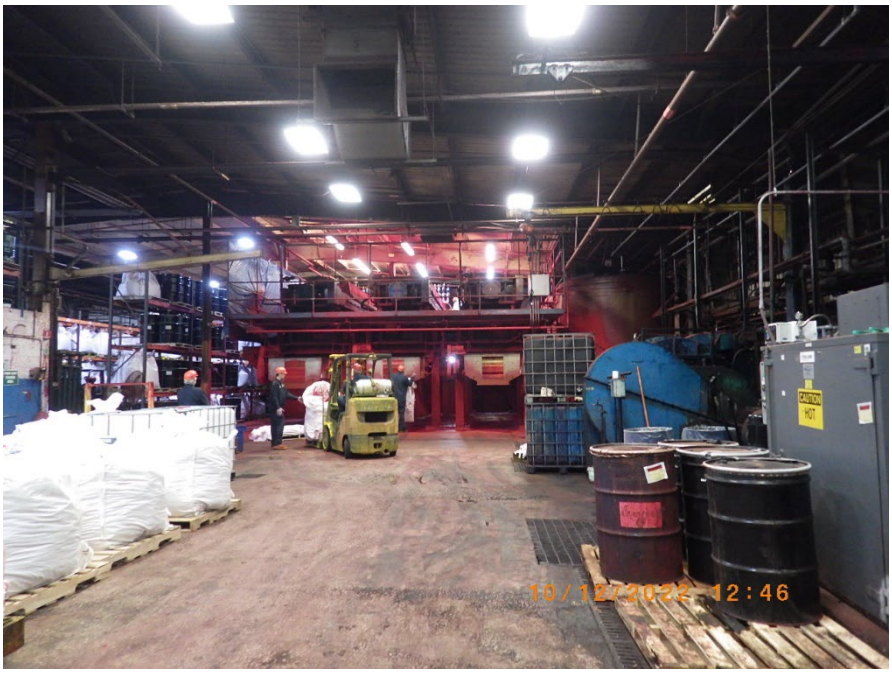
1: APOL0310
Description: East flush pit
Location: Building 1, northwest side
Camera Direction: Northeast
Date/Time: 10/12/22, 12:34 p.m.

2: APOL0311
Description: Floor scrubber
Location: Immediately southeast of Photo 1
Camera Direction: North
Date/Time: 10/12/22, 12:36 p.m.

3: APOL0312
Description: Two flush salvage presses with discarded solid material from presses in caged bins
Location: Building 1, northwest side
Camera Direction: Northwest
Date/Time: 10/12/22, 12:37 p.m.

4: APOL0313
Description: Oil and varnish drums in foreground, empty tank in background
Location: North corner of Building 1
Camera Direction: Northeast
Date/Time: 10/12/22, 12:39 p.m.

5: APOL0314
Description: Totes of blue and green pigment slurries and methyl esters
Location: North
Camera Direction: North corner of Building 1
Date/Time: 10/12/22, 12:40 p.m.



6: APOL0315
Description: Three red pigment filter presses
Location: Northwest side of Building 1
Camera Direction: Southwest
Date/Time: 10/12/22, 12:46 p.m.

7: APOL0316
Description: Bags of red pigment presscake
Location: Northwest side of Building 1
Camera Direction: Southeast
Date/Time: 10/12/22, 12:47 p.m.

8: APOL0317
Description: Former barium pretreatment tanks
Location: Northwest side of Building 1
Camera Direction: Northwest
Date/Time: 10/12/22, 12:48 p.m.

9: APOL0318
Description: Treatment tanks for the east and west floor pits
Location: Northwest side of Building 1
Camera Direction: West
Date/Time: 10/12/22, 12:49 p.m.

10: APOL0319
Description: Yellow pigment filter presses
Location: Northeast side of Building 2
Camera Direction: South
Date/Time: 10/12/22, 12:52 p.m.

11: APOL0320
Description: Yellow pigment process floor pit
Location: Northeast side of Building 2
Camera Direction: Southeast
Date/Time: 10/12/22, 12:52 p.m.

12: APOL0321
Description: Red pigment strike tank and software program
Location: Pigment tower, north corner of Building 2
Camera Direction: South
Date/Time: 10/12/22, 1 p.m.

13: APOL0322
Description: Sink used for washing hands and sample cups
Location: Across from strike tank shown in Photo 12
Camera Direction: Northwest
Date/Time: 10/12/22, 1:02 p.m.

14: APOL0323
Description: Bags of yellow pigment presscake
Location: Building 2
Camera Direction: West
Date/Time: 10/12/22, 1:05 p.m.

15: APOL0324
Description: Receiving dock
Location: Building 2, northwest side
Camera Direction: Northwest
Date/Time: 10/12/22, 1:06 p.m.

16: APOL0325
Description: Sodium hydroxide, calcium chloride, acetic acid, aluminum sulfate storage tanks
Location: Building 2, West Tank Farm, southwest side
Camera Direction: Southwest
Date/Time: 10/12/22, 1:10 p.m.

17: APOL0326
Description: Varnish storage tanks
Location: Building 2, center of West Tank Farm
Camera Direction: Southeast
Date/Time: 10/12/22, 1:10 p.m.

18: APOL0327
Description: Unloading dock
Location: Outside of West Tank Farm, southwest side of Building 2
Camera Direction: Southeast
Date/Time: 10/12/22, 1:12 p.m.

19: APOL0328
Description: Unloading dock catch basin
Location: Outside of West Tank Farm, southwest side of Building 2
Camera Direction: Northwest
Date/Time: 10/12/22, 1:12 p.m.

20: APOL0329
Description: Hoses coming from West Tank Farm
Location: Outside West Tank Farm
Camera Direction: North
Date/Time: 10/12/22, 1:13 p.m.

21: APOL0330
Description: Stormwater lightly discharging from west stormwater outfall
Location: South corner of site
Camera Direction: Northeast, down
Date/Time: 10/12/22, 1:15 p.m.

22: APOL0331
Description: West stormwater outfall with Illinois & Michigan Canal in background
Location: South corner of site
Camera Direction: South
Date/Time: 10/12/22, 1:16 p.m.

23: APOL0332
Description: Erosion leading to the west stormwater outfall with washed and rinsed empty totes that held methyl ester in the background
Location: South corner of site
Camera Direction: North
Date/Time: 10/12/22, 1:17 p.m.

24: APOL0333
Description: Erosion leading to the west stormwater outfall
Location: South corner of site
Camera Direction: Southeast
Date/Time: 10/12/22, 1:17 p.m.

25: APOL0334
Description: West stormwater outfall shutoff valve
Location: South corner of site
Camera Direction: Northwest
Date/Time: 10/12/22, 1:18 p.m.

26: APOL0335
Description: Tubs containing flush product
Location: Building 2
Camera Direction: Uncertain
Date/Time: 10/12/22, 1:21 p.m.

27: APOL0336
Description: Press for flush tubs with drain going to west flush pit
Location: Building 2
Camera Direction: Uncertain
Date/Time: 10/12/22, 1:24 p.m.

28: APOL0337
Description: Empty flush product bags greased with a sprayer to ease removal
Location: Building 2
Camera Direction: Uncertain
Date/Time: 10/12/22, 1:25 p.m.

29: APOL0338
Description: Drais mixers for red pigment presscake
Location: East corner of Building 2
Camera Direction: Southeast
Date/Time: 10/12/22, 1:26 p.m.

30: APOL0339
Description: Floor drains under the yellow pigment filter press
Location: Northeast side of Building 2
Camera Direction: North
Date/Time: 10/12/22, 1:27 p.m.

31: APOL0340
Description: Water on floor after being decanting off the yellow pigment presscake Drais mixers
Location: East corner of Building 2
Camera Direction: Southeast
Date/Time: 10/12/22, 1:27 p.m.

32: APOL0341
Description: Yellow pigment presscake being added to a Drais mixer
Location: East corner of Building 2
Camera Direction: Northeast
Date/Time: 10/12/22, 1:29 p.m.

33: APOL0342
Description: Mixer from Photo 32 with yellow pigment presscake
Location: East corner of Building 2
Camera Direction: Down
Date/Time: 10/12/22, 1:30 p.m.

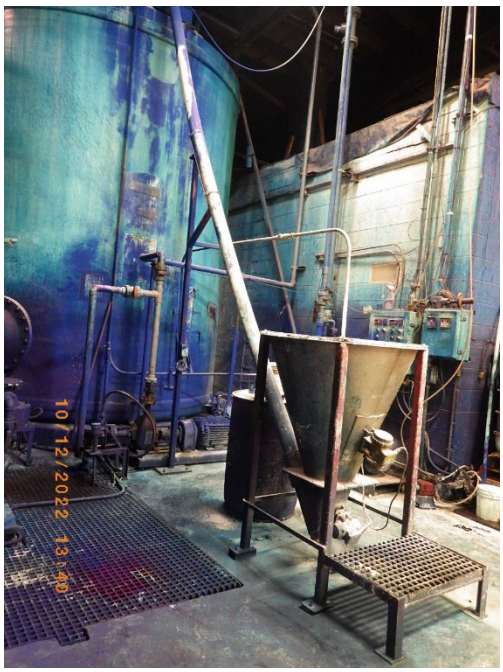
34: APOL0343
Description: Mixer from Photo 32 with varnish being added to yellow pigment presscake
Location: East corner of Building 2
Camera Direction: Down
Date/Time: 10/12/22, 1:31 p.m.

35: APOL0344
Description: West flush pit with tote that collects skimmed oil
Location: East corner of Building 2
Camera Direction: East
Date/Time: 10/12/22, 1:32 p.m.

36: APOL0345
Description: Blue pigment media mills
Location: Blue Room, south corner of Building 1
Camera Direction: North
Date/Time: 10/12/22, 1:37 p.m.

37: APOL0346
Description: Blue pigment storage tanks
Location: Blue Room, south corner of Building 1
Camera Direction: North
Date/Time: 10/12/22, 1:37 p.m.

38: APOL0347
Description: Tank in which carbon steel from media mills is removed from blue slurry
Location: Blue Room, south corner of Building 1
Camera Direction: Uncertain
Date/Time: 10/12/22, 1:40 p.m.



39: APOL0348
Description: Funnel where diatomaceous earth is added next to blue pigment wastewater tank
Location: Building 1, outside north corner of Blue Room
Camera Direction: North
Date/Time: 10/12/22, 1:40 p.m.

40: APOL0349
Description: Totes with hydrochloric acid and aluminum chloride for blue pigment wastewater treatment
Location: Immediately northeast of Photo 39
Camera Direction: North
Date/Time: 10/12/22, 1:41 p.m.

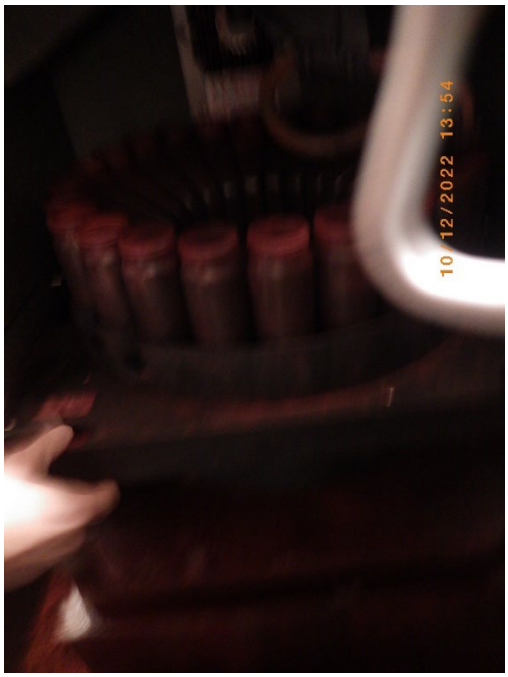
41: APOL0350
Description: Hammer mill used to process orange pigment after drying
Location: Building 1, east of Blue Room
Camera Direction: Southwest
Date/Time: 10/12/22, 1:43 p.m.

42: APOL0351
Description: Discharge of roof stormwater off stormwater collection tank with broken pump
Location: East shipping area, east side of Building 1
Camera Direction: Northwest
Date/Time: 10/12/22, 1:46 p.m.

43: APOL0352
Description: Salvage press with wastewater leading to the red pigment floor pit
Location: Northwest side of Building 1
Camera Direction: West
Date/Time: 10/12/22, 1:51 p.m.

44: APOL0353
Description: Red pigment floor pit
Location: Northwest side of Building 1
Camera Direction: North
Date/Time: 10/12/22, 1:51 p.m.

45: APOL0354
Description: EPA pit
Location: Building 1, in room immediately northwest of red pigment filter presses
Camera Direction: Northwest
Date/Time: 10/12/22, 1:52 p.m.



46: APOL0355
Description: ISCO 4700 composite sampler
Location: In room adjacent to EPA pit
Camera Direction: Northwest
Date/Time: 10/12/22, 1:54 p.m.

47: APOL0356
Description: Stormwater in parking lot draining to pipe leading to east stormwater outfall
Location: Parking lot in northeast corner of site
Camera Direction: East
Date/Time: 10/12/22, 2:02 p.m.

48: APOL0357
Description: Closer view of pipe in Photo 47
Location: Parking lot in northeast corner of site
Camera Direction: Southeast
Date/Time: 10/12/22, 2:03 p.m.

49: APOL0358
Description: Stormwater discharging from east stormwater outfall
Location: Northeast corner of site
Camera Direction: Southwest
Date/Time: 10/12/22, 2:06 p.m.