

REPORT OF RCRA
COMPLIANCE EVALUATION INSPECTION

At

Green America Recycling, LLC
10107 Highway 79
Hannibal, Missouri 63401
(573) 221-1740

EPA Identification Number: MOD054018288

On

February 15 and 16, 2023

By

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 7
Enforcement & Compliance Assurance Division

1.0 INTRODUCTION

I performed a Resource Conservation and Recovery Act (RCRA) compliance evaluation inspection (CEI) inspection at Green America Recycling, LLC (Green America), located at 10107 Highway 79, Hannibal, Missouri, on February 15 and 16, 2023. I conducted the RCRA inspection under the authority of RCRA Section 3007(a), as amended, and the RCRA hazardous waste management permit issued to Green America. During the inspection, I collected the information necessary to determine compliance with the applicable regulatory and statutory requirements. This report and attachments present the results of the inspection. Based on the information obtained during the inspection, I inspected the facility as a treatment storage disposal facility, large quantity generator of hazardous waste, generator of universal waste lamps, and co-generator of used oil. Green America was last inspected by the Missouri Department of Natural Resources (MDNR) on December 13, 2021. Three violations were observed or cited as a result of the 2021 inspection. The last EPA inspection was conducted on May 14-16, 2019. Eight violations were observed or cited as a result of the 2019 inspection.

2.0 PARTICIPANTS

Green America:

Melissa Myers, Environmental Manager
Matt Nelson, Director of Green America Recycling
Dan Carney, Director, Environmental
Jeff Myers, Quality Assurance Manager
Joe Mickels, Drum Receiving Supervisor

Jody Cook, Liquid Fuels Manager
Richard Tharp, Maintenance Manager
Mary Janiszewski, Summit Materials Council (joined by phone; exit briefing only)

MDNR:

Brandon Backus, Environmental Specialist
Sophie Heier, Environmental Program Analyst
Carlee Maune, Environmental Program Analyst
Cody Fanter, Environmental Program Analyst

U.S. Environmental Protection Agency (EPA):

Timothy Evans, Life Scientist, ECAD/CB/RCRA (Lead Inspector)

3.0 INSPECTION PROCEDURES

February 15, 2023

Mses. Heier and Maune, Messrs. Backus and Fanter, and I arrived at the facility at approximately 8:45 a.m. A drive-by inspection was only possible for a small portion of the east side of the facility. No apparent issues were observed. Mses. Heier and Maune, Messrs. Backus and Fanter, and I then proceeded to the facility office, adjacent to the fuel lab, and asked for Melissa Myers, listed as site contact on the Hazardous Waste Site Information Verification Report for Inspectors form (Attachment 5). Mses. Heier and Maune, Messrs. Backus and Fanter, and I signed in as visitors and were then introduced to Ms. Myers. Ms. Myers escorted Mses. Heier and Maune, Messrs. Backus and Fanter, and me to her office for the in briefing. We were introduced to Mr. Nelson, who joined us for the in briefing. I presented Ms. Myers and Mr. Nelson with my business card and EPA credentials. Mses. Heier and Maune and Messrs. Backus and Fanter were accompanying me as observers. During the in-briefing, I presented Ms. Myers and Mr. Nelson with a copy of the RCRA Facility Access Information Sheet, March 2013, which provides inspection authority. I explained my need to collect accurate information and presented Ms. Myers and Mr. Nelson with a copy of Title 18 U.S. Code, Sections 1001 and 1002. As part of the in-briefing, Ms. Myers and Mr. Nelson were made aware of Green America's confidentiality rights and informed that a Confidentiality Notice would be provided at the end of the inspection to make, or not to make, any claims. Ms. Myers and Mr. Nelson acted as the facility representatives during the on-site inspection activities. Mr. Carney also joined us at Container Storage Area (CSA) 5 for the remainder of the inspection.

During the inspection, discussions consisted of wastes generated and waste management practices.

Mses. Heier and Maune, Messrs. Backus and Fanter, and I conducted a visual inspection of the following areas:

- CSA 1
- CSA 3
- CSA 4
- CSA 5
- Rail Pad

Feed Prep #2
Fuel Lab/Main Lab
Tank Farm - Tanks 1-6, 8, and 9
Tanks 13 and 14

Information collected during the inspection was documented on field sheets, and as discussed below.

February 15, 2023

I arrived back at the facility at approximately 8:30 a.m. I conducted a visual inspection of the Maintenance Area, a review of facility records, and an exit briefing. I summarized the findings of my inspection with Mses. Myers and Janiszewski, Messrs. Nelson, Carney, Cook, Mickels, and Backus. Ms. Janiszewski and Mr. Backus joined the exit briefing by phone. I provided Mr. Nelson with a Confidentiality Notice (Attachment 1) which he signed as acknowledgement of receipt. Mr. Nelson made no confidentiality claims.

I also provided Mr. Nelson with a Receipt for Documents and Samples (Attachment 2) and Notice of Preliminary Findings (NOPF) (Attachment 3), which Mr. Nelson signed as acknowledgement of receipt. The following inspection documents were provided to Green America:

Inspection Documents

Confidentiality Notice

*Notice Regarding Proprietary/Confidential Business Information Submitted to or Collected by
EPA In Connection with Inspections*

Receipt of Documents and Samples

Notice of Preliminary Findings

Instructions for Responding to a Notice of Preliminary Findings

EPA Compliance Assistance Handouts

Security Awareness

EPA Industry Sector Notebooks List

EPA Environmental Compliance Assistance Centers

U.S. EPA Small Business Resources Information Sheet (January 2022)

Missouri Department of Natural Resources Compliance Assistance Handout

Hazardous Waste Satellite Accumulation PUB 2215 3/2016

I followed the inspection procedures established in the RCRA CEI Standard Operating Procedure (No. 2321.1E), unless noted differently. Any federal regulatory citations noted in this report are as adopted by reference in the authorized Missouri regulations.

4.0 FINDINGS AND OBSERVATIONS

4.1 General Information/Facility Description/RCRA Status

Green America is located in northeast Ralls County, Missouri. The facility is south of the City of Hannibal and is bordered to the east by Highway 79 and the Mississippi River. The area surrounding the facility to the north, west and south is undeveloped.

According to the July 6, 2021, published EPA Public Notice, related to the facility permit, Green America is a commercial hazardous waste storage and treatment facility. Regulated activities are performed by both Continental Cement Company LLC and Green America.

Continental Cement is the owner of the property and operates a dry process rotary cement kiln that produces clinker, the main ingredient in Portland cement. Continental Cement uses pulverized coal and/or petroleum coke as fuel in both the rotary cement kiln and pre-calciner burner system. To supplement its fuel needs, Continental Cement also uses a variety of liquid and solid hazardous waste-derived fuels and non-hazardous waste fuels. **It should be noted that at the time of the February 2023 inspection the kiln was not operating, and the Continental Cement portion of the facility, including the Solids Storage Silo, was not inspected for compliance with RCRA.**

Green America operates the hazardous waste fuel program at the permitted facility, which includes receiving, sampling, off-loading, storing, and processing the waste received at the facility. Most of the hazardous waste comes from off-site by way of truck and railcar. The liquid hazardous wastes are “blended” with other hazardous waste to achieve the desired fuel characteristics.

Liquid hazardous waste-derived material (WDM) is pumped from hazardous waste storage tanks through piping and feed rate monitoring and control equipment into the pre-calciner of the rotary cement kiln system. Solid hazardous WDM is removed from containment buildings; conveyed via covered trucks or wagons to the pre-heater/pre-calciner where the waste is metered; and weighed into a pneumatic feed system into the pre-calciner burner system.

As described in the May 14 - 16, 2019, EPA inspection report, Green America utilizes multiple buildings and two tank farms and ancillary facilities to manage hazardous waste. Two hazardous waste container storage areas are located within buildings. One hazardous waste container storage area, primarily used to store roll-off containers, is open to weather and located on a paved area. One hazardous waste container storage area used to store rail tank cars and roll-off containers is covered with a roof structure.

Green America was constructed in 1985. However, cement has been produced at this location since 1903. Hazardous waste management currently includes eleven hazardous waste tanks, four container storage areas, and two containment buildings. The two containment buildings house miscellaneous treatment units for shredding, drum decanting and mixing, and an area for mixing to solidify or stabilize free liquids and sludges. The industrial furnace includes feed systems used to burn liquid and solid hazardous waste fuels in the pre-calciner of the cement kiln.

Various satellite accumulation containers are utilized throughout Green America. Universal waste generated by Green America is accumulated in a metal building west of the Green America offices. Used oil is accumulated at the Green America maintenance area, adjacent to the Green America offices.

It should be noted that On April 23, 2019, MoDNR accepted partial closure for CSA 2; Tank 7 was clean closed effective July 18, 2008; and Tank 10 was considered not regulated effective March 10, 1992.

Green America is currently operating under a Missouri-issued Hazardous Waste Management Facility Part I Permit and an EPA-issued Part II Permit. The Part I and Part II Permits were originally issued by the Missouri Department of Natural Resources (MoDNR) and EPA in October 1999. These permits allow Green America Recycling to store and treat “characteristic” hazardous waste, as well as various F-, K-, P- and U-listed hazardous wastes; and to burn liquid and solid hazardous waste, as supplemental fuel, in the pre-calciner burner system within the rotary cement kiln system. In addition to hazardous waste codes authorized by the MoDNR Part I Permit, the EPA Part II permit allows Green America to continue to store and treat F032, F034 and F035-listed hazardous waste, as specified in the application.

On Oct. 13, 2009, Green America Recycling submitted a permit renewal application to EPA and MoDNR to renew its hazardous waste permits. MoDNR reissued to Green America Recycling the Missouri Hazardous Waste Management Facility Part I Permit, effective Nov. 18, 2019. The EPA Region 7 reissued the Part II Resource Conservation and Recovery Act Hazardous Waste Management Facility Permit, issued on August 30, 2021, effective August 31, 2021.

Since the reissuances of Part I and Part II Permits, Green America Recycling has requested several permit modifications, with the most recent one submitted on June 1, 2021. Green America Recycling submitted a Class 3 Permit Modification request to MoDNR and EPA, requesting to: modify its existing hazardous waste permits to prevent disruption of ongoing waste management activities; enable Green America to respond to sudden changes in the quantities of wastes managed under the permits; and facilitate changes to protect human health and the environment. MoDNR and EPA received the original modification request in its entirety on June 4, 2021. Green America and Continental Cement then revised and resubmitted the modification request on July 22, 2021, and submitted supplemental modifications and informational updates as follows:

- Aug. 4, 2021 - Revised sections 4, 5, and 6, and standard operating procedures.
- Aug. 27, 2021 - Supplemental EPA Method 1311 GAR Fuels Lab standard operating procedure.
- Sept. 24, 2021 (consisting of September 1, 2021, and September 7, 2021, transmittals) - Supplemental Direct Burn operations (update received on May 5, 2020) and Comprehensive Performance Test Plan
- Oct. 14, 2021 - Requested Rail Yard Piping changes in CSA #3.
- Jan. 31, 2022 - Supplemental Drum Piercer Ventilation.
- Feb. 1, 2022 - Revised Drum Tipper Extruder System.
- Feb. 2, 2022 - Revised Waste Analysis Plan.

- March 11, 2022 - Revised to operate both the existing Hydrapulper and the requested Hydrapulper #2.
- March 15, 2022 - Notification of Contingency Plan Update and Temporary Authorization Request

Green America and Continental Cement also originally requested to add EPA Waste Code D003, Reactive Waste, for treatment at the facility, but rescinded the request on Sept. 24, 2021.

In accordance with the regulations, MoDNR granted the Class 3 Permit Modification request to the Part I Permit, modifying the Part I Permit accordingly, and the Class 3 modification to the Part I went into effect on November 10, 2022. EPA Region 7 granted the Class 3 Permit Modification for the EPA Part II Permit, modifying the Part II Permit accordingly, and the Class 3 modification to the EPA Part II Permit went into effect on November 2, 2022.

See Attachment 4 for a facility aerial photo and fuel/main lab diagram. Green America is staffed by approximately 77 employees and operates 24 hours a day, seven days a week.

See the May 14 - 16, 2019, EPA inspection report and the December 8, 2021, MoDNR inspection report for additional, detailed facility information (Attachment 5).

RCRA Status

According to the RCRAInfo database, Green America has notified as a State of Missouri and Federal Large Quantity Generator of hazardous waste, a treatment, storage and disposal facility, a used oil generator and a small quantity handler of universal waste. As part of the opening conference, I provided Ms. Myers with a Notification Acknowledgement/Verification Report form (Attachment 6). Ms. Myers reviewed the form and made a change to the current operator name from “Continental Cement” to “Green America Recycling.”

4.2 Previous Inspections and Any Related Violations/Issues

December 8, 2021 – Three violations cited, MoDNR

1. Special Permit Condition III.C.8.b. - Waste material being above the containment wall boundary in FP#1.
2. Standard Permit Condition I, Section 260.350, et seq., RSMo; 10 CSR 25-8; 40 C.F.R. Part 264 Subpart H; and 40 C.F.R. 264.101, 270.10, 270.30, 270.40, 270.42 and 270.51. 10 CSR 25-5.262(1) incorporating 40 C.F.R. 262.34(a)(1) referencing 40 C.F.R. 265.173(a) - railcar cleaning fixture; allowing hazardous waste to collect in an open container when not in use.
3. Standard Permit Condition I, Section 260.350, et seq., RSMo; 10 CSR 25-8; 40 C.F.R. Part 264 Subpart H; and 40 C.F.R. 264.101, 270.10, 270.30, 270.40, 270.42 and 270.51. 40 C.F.R. 264 Subpart J – trench underneath the Hydrapulper in FP#2 being utilized on a regular basis not as secondary containment but rather primary containment.

May 14-16, 2019 – Eight violations cited, EPA Region 7

1. Special Permit Condition I.D.1 - Leaking container stored in CSA#3 and Leaking container stored in CSA#5.

2. Special Permit Condition I.F - Open container stored in CSA#1, Special Permit Condition I.E.1 – Three containers not compatible with waste stored in CSA#4 and I.F – Three open containers and seven containers with liquids on drum tops stored in CSA#4
3. Special Permit Condition I.G, Inspections [40 CFR 264.174] – Incomplete Hazardous Waste Container Storage Area Inspection Logs.
4. Special Permit Condition II.G, Inspections [40 CFR 264.195] – Missing Hazardous Waste Storage/Treatment Tank Inspection Logs.
5. 10 Code of State Regulations (CSR) 25-5.262, Standards Applicable to Generators of Hazardous Waste – Four satellite accumulation containers not closed in Fuels Laboratory
6. Special Permit Condition VII.A, Air Emissions from Equipment Leaks – Five open-ended lines not equipped with a cap.
7. Special Permit Condition VII.B, Air Emissions from Equipment Leaks – Barrier fluid leaking from pump in Hazardous Waste Fuel Tank farm not identified as leaking.
8. Special Permit Condition VII.B, Air Emissions from Equipment Leaks – Method 21 deviation.

October 10, 2018 – Two violations cited, MoDNR

1. 10 CSR 25-7.264(2)(1)1, 10 CSR 25-5.262(2)(C) – Accumulation start dates not legible on roll-off containers 3031 and 3016 in CSA 5.
2. 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(c)(1)(i), referencing 40 CFR 265.173(a) - three satellite accumulation containers, one each in the Feed Barn, Feed Prep #2, and in CSA #3 that were not properly closed.

4.3 Changes Since Previous Inspection

Personnel Changes

- Mr. Nelson became the new Director of Green America in June of 2022.
- Ms. Myers became the new Environmental Manager in March of 2022.
- Jeff Myers became the new Quality Assurance Manager in the first quarter of 2022.

Miscellaneous Changes

According to Mr. Mickels, the piercing machine located in CSA 4 has been put back in use, but is only used with drums that appear to pose safety concerns e.g., bulging tops on drums.

In March of 2022, Green America created a new set of criteria related to accepting waste.

Hydrapulper Number 2 was installed in the first quarter of 2022. Hydrapulper Number 2 was uninstalled in February of 2023, just prior to the inspection. According to Mr. Carney, Hydrapulper Number 2 wouldn't operate properly and consequently was never utilized.

Green America has instituted a new procedure to address unintentional spills/releases of waste from open drums on the conveyor in the Feed Prep 2 building.

According to Mr. Carney, Green America is using a vacuum truck to remove some waste from the drums, prior to conveying, so that waste doesn't spill on the Feed Prep 2 conveyor system.

According to Ms. Myers, a facility fire safety committee was formed in March of 2022.

According to Ms. Myers, MoDNR permit engineers made comments and suggestions to Green America related to functionality of the Feed Prep 1 interlock. The interlock controls how quickly the dry fire suppression system can be recharged.

The Direct Burn system was initially used with oil. Now the Direct Burn system is used with current liquid fuels.

According to Ms. Myers, use of Starzorb (ADM Starch) in the Solidification & Special Blending Treatment Unit (SSTU) had been discontinued. However, Green America plans to resume use of Starzorb in the future.

4.4 Waste Streams and Waste Management

Location and amount of waste in storage, at the time of the inspection, is listed on the CSA 3, 4, and 5 inventory lists (Attachment 7), and as described within this report. A computer program called Waste Fuels Management System (WFMS) is used to track waste received and generated at the facility. The Green America 2021 Comprehensive Biennial Report also lists waste and generation rates for the facility (Attachment 9). Hazardous wastes generated by Green America are primarily managed on-site, except for metals generated in Feed Prep 1 which is sent off to a facility in Michigan for encapsulation. According to Ms. Myers, RCRA empty metal drums are recycled through GFL Environmental.

At the time of the inspection, I observed six empty and two full 25,000-30,000-gallon capacity railcars. The two railcars appeared to be in good condition, closed, and were labeled with the words "Hazardous Waste."

According to Ms. Myers, universal waste lamps generated by the facility are transported through Waste Management Lamptacker in South Carolina. Lead acid batteries generated from facility equipment and trucks are taken off-site by a vendor and recycled, utilizing the exclusion allowed under 40 CFR 266 Subpart G – Spent Lead-Acid Batteries Being Reclaimed. Ms. Myers stated that used oil generated from facility equipment is managed on-site as a fuel source.

4.5 Areas Visually Inspected and Related Preliminary Findings

4.5.1 Container Storage Area (CSA) 3

Permit Part I – Special Permit Condition II.E.1, Containers holding hazardous waste shall always be closed. (NOPF 1) - During inspection of CSA 3, I observed the following roll-off containers containing hazardous waste not closed:

- One faded red/pink, 30-yard roll-off container containing Finish Feed hazardous waste. The roll-off was labeled with the words "Hazardous Waste", a placard with the number "3077", and "GAR3051."

However, the roll-off container metal cover was bent/warped and was not closed (Photos 31 and 32).

- One red 30-yard roll-off container containing Finish Feed hazardous waste. The roll-off was labeled with the words “Hazardous Waste”, a placard with the number “3077”, and “GAR3024.” However, the roll-off container metal cover was broken and propped open on one corner (Photos 33).
- One red, 30-yard roll-off container containing Finish Feed hazardous waste. The roll-off was labeled with the words “Hazardous Waste”, a placard with the number “3077”, and “GAR3033.” However, the roll-off container metal cover was broken and propped open (Photos 35 and 36).
- One red, 30-yard roll-off container containing Finish Feed hazardous waste. The roll-off was labeled with the words “Hazardous Waste”, a placard with the number “3077”, and “GAR3043.” However, the roll-off container metal cover was bent/warped and propped open on one corner (Photo 37).
- One red, 30-yard roll-off container containing Finish Feed hazardous waste. The roll-off was labeled with the words “Hazardous Waste”, a placard with the number “3077”, and “GAR3002.” However, the roll-off container metal cover was broken and propped open (Photo 38).

According to Ms. Myers, all waste codes applicable to hazardous waste permitted to be received and treated at the facility would be associated with the Finish Feed hazardous waste.

Facility personnel were able to adjust or apply a new cover to the tops of roll-off containers 3002, 3024, 3033, and 3051, addressing part of NOPF 1 at the time of the inspection (Photos 34 and 45-48).

4.5.2 CSA 5

Permit Part I – Special Permit Condition II.F.2., Containers not marked with accumulation start date. (NOPF 2) – During inspection of CSA 5, I observed the following roll-off containers not marked or labeled with accumulation start dates:

- One 30-yard roll-off container containing hazardous waste. The roll-off was closed and labeled with the words “Hazardous Waste” and “GAR 3029.” However, the roll-off container was dated “9/25/23” (Photos 1 and 2).
- One 20-yard roll-off container containing hazardous waste. The roll-off was closed and labeled with the words “Hazardous Waste” and “20474.” However, the roll-off container was not marked or labeled with an accumulation start date. (Photos 5 and 6).

Utilizing the WFMS system, facility personnel were able to determine the accumulation start date for the two roll-off containers. Facility personnel labeled the 30-yard roll-off container with accumulation start date “9/5/22” and the 20-yard roll-off container with accumulation start date “1/24/23”, addressing NOPF 2 at the time of the inspection (Photos 7, 8, and 9).

4.5.3 Universal Waste Storage Area

10 CSR 25-16.273(1) —→ 40 CFR 273.14(e), Containers not labeled with the words “Universal Waste Lamps(s)”, “Waste Lamps”, or “Used Lamps”. (NOPF 3)

During inspection of the universal waste storage area, I observed two cardboard boxes containing spent fluorescent lamps. According to Ms. Myers, 22 spent lamps total were stored within the two 4-foot-long boxes. The boxes were closed, labeled and dated.

I also observed two 5-gallon polyethylene white buckets labeled “Universal Waste”, “Waste Bulbs”, and “Used Bulbs.” According to Ms. Myers, there was one high pressure sodium, 10 multi-vapor, and three helical lamps total stored within the two buckets. Both buckets were closed, dated, and in good condition. However, the buckets were not labeled with the words “Lamps” (Photo 40).

Mr. Cook added the word “Lamps” to both buckets, addressing NOPF 3 at the time of the inspection (Photos 41 and 42).

4.5.4 Feed Prep #2 - Solidification & Special Blending Treatment Unit

Special Permit Condition V. C. 4. b. Hazardous waste kept at Feed Prep #2, for more than 24 consecutive hours. (NOPF Added after Inspection) – According to the November 10, 2022, Missouri Hazardous Waste Management Facility Part I Permit, the Solidification & Special Blending Treatment Unit (SSTU) is located within an enclosure inside the Feed Prep 2 building. The unit provides the ability for multiple treatment processes, some of which involves treating WDM to be shipped off site for eventual disposal, while others involve treating materials to be stored or further processed on site. Dispersible liquids (sludge) and dry solid materials are dumped into a hopper and transferred by screw conveyor to the drum decanting system. The unit provides a location for special blending to be conducted on WDM where liquids have separated during transit; for container cleaning using abrasive blast media, high-pressure water, or steam cleaning in order to remove WDM from empty containers or cleaning parts; and for the solidification/stabilization process, which involves mixing WDM with an appropriate binder material, allowing the physical/chemical reaction to occur, testing the material to meet land-disposal restrictions, and shipment to a permitted off-site facility.

During inspection of the SSTU on February 15, 2023, I observed approximately 2-3 cubic yards of material piled on the floor and several open, 55-gallon drums. I asked Mr. Carney and Ms. Myers if the waste in the SSTU was hazardous waste. Mr. Carney and Ms. Myers stated that the waste in the SSTU was hazardous waste. Subsequent to the inspection, I sent Ms. Myers an e-mail asking how much waste was in the SSTU and how long the waste had been there (Attachment 8). According to Ms. Myers, there were approximately 2-3 cubic yards of solid hazardous waste in piles on the floor and approximately 22 drums with varying amounts of material in them (partially full to just residue but not RCRA empty). Ms. Myers stated in her March 3, 2023, e-mail that “the night before, [approximately] 325 drums were run through the hydropulper system. The drums in the BIB were from that run and contained material that couldn’t be completely processed and emptied from the drum by the hydropulper.

The drums were staged in the BIB for further processing. Since the drums are not being stored, there isn't an inventory kept of drums and their contents staged in the BIB. The drums were staged early morning on the 15th and were shredded on Friday, February 17th" (Attachment 8).

According to Special Permit Condition V. C. 4. b. SSTU in Feed Prep #2, *The Permittee shall only temporarily manage hazardous waste in Feed Prep #2 prior to treatment. Hazardous waste shall not be kept at Feed Prep #2 for more than 24 consecutive hours. Hazardous waste shall be returned to a permitted storage unit or taken to a permitted storage area before exceeding the 24-hour temporary management limit.*

It should be noted that use of a carbon canister system, used to control volatile hazardous waste air emissions generated within the SSTU, was documented (Attachment 9). A photo showing that the waste had been removed from the SSTU was also provided by Green America (Attachment 10).

An e-mail was sent to the facility on April 12, 2023, informing the facility of the additional citation (Attachment 11).

8.6 Records Review

Manifests

Prior to arriving at the facility, I had conducted an on-line inspection of electronic manifests using RCRAInfo. I verified manifests were retained for at least three years. All manifests appeared to be complete and signed by the designated facility.

No apparent issues were observed during review of manifests through the e-manifest system.

2021 Comprehensive Biennial Report

Prior to arriving at the facility, I was able to review the facility 2021 biennial report using RCRAInfo (Attachment 12).

No apparent issues were observed during review of the 2021 comprehensive biennial report.

Contingency Plan

According to Ms. Myers, the contingency plan is in the process of being updated. I asked Ms. Myers to show me the following information within the most current contingency plan, dated September 2022:

- Emergency Contacts
 - Matt Nelson, Director of Green America
 - Deanie Waelder, Processing Coordinator for Solids
 - Jody Cook, Liquid Fuels Manager
- Emergency Response Agencies
- List of Emergency Equipment, Capabilities, Locations
- Communication devices - radios

The contingency plan appeared to be complete with no apparent issues.

Personnel Training

According to Ms. Myers, on the job training occurs using the standard operating procedure in each area of the facility. Ms. Myers showed me the task training matrix which lists completed training for Green America employees by title. Ms. Myers also provided me with the following training attendance templates for review:

- MSHA 488/RCRA, Annual Refresher Training for Green America Recycling & Continental Cement – 8-Hour Refresher and 32 Hour New Miner

Training included but was not limited to:

- Emergency Response/Evacuation
- Respiratory Devices
- Contingency Plan
- Communication and Alarm Systems
- Handling Hazardous Waste

- HAZWOPER Training

Training included but was not limited to:

- PPE
- Contingency Plan
- Emergency Preparedness
- Emergency Equipment
- Drums and Containers

Luke Myers was listed as the trainer for the course.

Training program documentation appeared to be complete with no apparent issues.

Inspection Records

According to Mr. Nelson, shift supervisors in each area conduct required inspections. I reviewed inspection logs for the following:

- Liquid Fuel Tank – High Level Shutdown Miltronics
- Daily Inspection Report, Liquid Fuel Storage/Blend Tanks & Containment Areas and Liquid Fuel Tanker Unloading Area 2/10/23 through 2/16/2023
- Daily Inspection Report, Liquid Fuel Storage/Blend Tanks & Containment Area [Tanks 13 and 14] and Liquid Fuel Tanker Unloading Area - 2/10/23 and 2/16/2023

Calibration and Monitoring

- Green America Recycling, LLC, Subpart FF/Kb/BB Method 21 Calibration Log – 2/1/23
- Daily Carbon Canister Monitoring Program 2/6/23 through 3/7/23

Special Permit Condition IX.A., Air Emission Standards for Equipment Leaks – Barrier fluid leaking from pump in Liquid Fuel Tanker Truck Unloading Area not identified as leaking (NOPF 4) – According to the November 10, 2022, facility permit (Attachment 13), under Special Permit Conditions IX.A., the Permittee shall comply with the applicable requirements of 40 C.F.R. Part 264 Subpart BB, for all units identified in the approved permit application.”

The requirements for record keeping, found within Subpart BB at 40 CFR 264.1064(d), state “When each leak is detected as specified in §§ 264.1052, 264.1053, 264.1057, and 264.1058, the following information shall be recorded in an inspection log and shall be kept in the facility operating record:” and in subparagraph (3) “The date the leak was detected and the dates of each attempt to repair the leak.” During inspection of the Tank Farm Truck Offloading Area on February 15, 2023, I observed liquid leaking from a pump located on the east side of the offloading area (Photos 43 and 44). I reviewed documents entitled “Daily Inspection Report,” “Liquid Fuel Storage/Blend Tanks & Containment Areas,” and “Liquid Fuel Tanker Truck Unloading Area” for February 10–16, 2023 (Attachment 14). The inspection logs for February 10–16, 2023, did not identify the pump as leaking.

At the time of the inspection, Mr. Cook monitored the pump with a photoionization detector with no reportable emissions. According to Richard Tharp, Green America, the barrier fluid used in the Liquid Fuel Tanker Truck Unloading Area is an anti-freeze and water mixture.

This was inadvertently cited as Permit Part I – Special Permit Condition IX., Air Emissions from Equipment Leaks – Method 21 Deviation, on the NOPF left with the facility.

It should be noted that this was also cited as a result of the May 14-16, 2019, RCRA inspection (Attachment 5).

Emergency Equipment Testing and Inspection, Location, and Capabilities

During the inspection, I noted ABC-rated fire extinguishers throughout the facility had been serviced, tested, and inspected by Getz Fire Equipment Co., Quincy, Illinois, in October of 2022. According to Mr. Mickels, all fire extinguishers are also inspected monthly by facility personnel.

The type of emergency equipment, location, and capabilities of the equipment are listed within the facility contingency plan, Worksheet 3.

No apparent issues were observed during review of emergency equipment.

4.6 Additional Issues and Observations

Liquid Hazardous Waste on Top of Tote – CSA 4

During inspection of CSA 4, Row 1, I observed a 250-gallon polyethylene tote labeled with the words “Hazardous Waste” and waste codes D004, D008, and D010. I observed approximately 3 ounces of black liquid on top of the tote (Photos 10-12). I asked Mr. Mickels what the liquid on top of the tote was. Mr. Mickels stated that it looked like the same material that was inside the tote. According to Mr. Mickels, the tote had arrived at the facility with the liquid on top. According to Mr. Mickels, CSA 4 personnel cleaned the top of the tote with wipes, which were then disposed in the hazardous waste satellite accumulation container near the east entrance to CSA 4 (Photos 18-20).

Hazardous Waste Tanks 8 and 9 – Hazardous Waste Residual from Sample Ports

During inspection of Tanks 8 and 9, I observed material on the side of the tanks adjacent to the sample ports and on the secondary containment under the sample ports (Photos 13, 14, and 16).

The material appeared to be dry and was estimated to be approximately one or two ounces volume. According to Mr. Cook, the material on the side of Tanks 8 and 9 and on the secondary containment would be hazardous waste from Tanks 8 and 9 sample ports. Tank Farm personnel cleaned the residual hazardous waste off the sides of Tanks 8 and 9 and the secondary containment at the time of the inspection (Photo 21).

It should be noted that Green America was conducting routine maintenance on Tank 8 and 9 piping, leading to the kiln, at the time of the inspection.

Hazardous Waste Tank 9

During inspection of hazardous waste Tank 9, I observed one approximately 1.5-inch diameter spot where the paint was missing and one approximately 1.5-inch diameter spot where paint was peeling (Photo 15). I pointed out the spots to Mr. Cook and Ms. Myers and asked what might have caused the paint to come off the tank and peel. Mr. Cook was not certain how the paint had come off the tank, but stated that Green America would examine the spots on Tank 9.

Main/Fuel Lab – Hazardous Waste Satellite Accumulation

During inspection of the Main/Fuel Lab, I observed a 3-gallon polyethylene hazardous waste satellite accumulation container, located under the Inductively Coupled Plasma (ICP) 1 analytical equipment (Photos 22 and 23). The container was hooked up to the ICP 1 analytical equipment. I pointed out to Mr. Myers that the lid looked crooked and may not be making a complete seal. According to Mr. Myers, waste accumulated in the container would consist of 7% nitric acid, 5% hydrochloric acid, and sample material. Although there was no hazardous waste in the container at the time of the inspection, I reminded Mr. Myers that lids on hazardous waste accumulation containers need to be properly secured and remain closed when they do contain waste, except when adding or removing waste.

Feed Prep #2 – Hydrapulper 1

During inspection of the Hydrapulper 1, I observed material accumulated at the base of the operator's station (Photos 24 and 25). I asked Mr. Carney about the accumulated material and Mr. Carney stated it would be hazardous waste from drums processed in this area. I asked if there would be a possibility for Hydrapulper operators to track the hazardous waste outside when they leave the Feed Prep 2 building. According to Mr. Carney, all Feed Prep #2 personnel are required to remove their boots prior to leaving the Feed Prep #2 building.

Feed Prep #2 – Aerosol Can Puncturing Device (Hazardous Waste Satellite Accumulation)

During inspection of the Feed Prep #2 building, I observed a 55-gallon hazardous waste satellite accumulation drum (Photos 26 and 27). The drum was being used to accumulate residual from punctured aerosol cans. The drum was closed, labeled, and in good condition. However, the outside of the puncturing chamber, top, and side of the drum were covered in what appeared to be paint. I pointed out the material on the outside of the puncturing chamber and drum to Ms. Myers and suggested that they determine if the puncturing device was working properly or might need to be replaced.

Bristol Unit Railcar Cleaning Equipment

Mr. Backus and Green America personnel discussed whether the 5' x 4' x 4' metal Bristol Unit box should be managed as a hazardous waste satellite accumulation container or less than 90-day accumulation container. A decision was not made, in part, because the Bristol Unit box did not contain any hazardous waste at the time of the inspection.

Railroad Transport of Hazardous Waste

According to Mr. Nelson and Ms. Myers, Green America has recently encountered challenges with timely receipt of customer railcars and railcars shipped by Green America, containing rejected hazardous waste.

Ms. Myers stated that Green America has had correspondence with generators concerning exception reporting for railcars containing hazardous waste. Ms. Myers stated that the railroad company, BNSF Railway, is holding up the ability of the generator in submitting a timely signed manifest to Green America. According to Ms. Myers, BNSF Railway is not getting the railcars of rejected hazardous waste back to the generator within the 45-day time period, in some cases.

5.0 SUMMARY

I inspected Green America as a Federal Large Quantity Generator of hazardous waste, hazardous waste transfer facility, hazardous waste treater, storer, disposer, generator of universal waste lamps, and generator of used oil.

Hazardous waste requirements reviewed during this inspection are discussed above and are documented on bound field notes.

The following preliminary findings/issues were noted as discussed above:

1. Permit Part I – Special Permit Condition II.E.1, Containers holding hazardous waste shall always be closed. (NOPF 1)
2. Permit Part I – Special Permit Condition II.F.2., Containers not marked with accumulation start date. (NOPF 2)
3. 10 CSR 25-16.273(1) 40 CFR 273.14(e), Containers not labeled with the words “Universal Waste Lamps(s)”, “Waste Lamps”, or “Used Lamps”. (NOPF 3)
4. Special Permit Condition IX.A., Air Emission Standards for Equipment Leaks – Barrier fluid leaking from pump in Liquid Fuel Tanker Truck Unloading Area not identified as leaking (NOPF 4). *Inadvertently cited on NOPF left with the facility as Permit Part I – Special Permit Condition IX., Air Emissions from Equipment Leaks – Method 21 Deviation.*
5. Special Permit Condition V.C.4.b. Hazardous waste kept at Feed Prep #2 for more than 24 consecutive hours. (NOPF Added After Inspection)

Other than the items noted above, no other apparent preliminary findings were observed or cited. However, EPA post-inspection review of this report may change or add to my findings.

TIMOTHY
EVANS

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TIMOTHY EVANS
Date: 2023.04.21
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Timothy R. Evans
Life Scientist
ECAD/CB/RCRA, EPA Region 7

AMBER WHISNANT

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Date: 2023.04.25
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Amber Whisnant
Section Chief
ECAD/CB/RCRA, EPA Region 7

Attachments

1. Confidentiality Notice (1 page)
2. Document of Receipt (1 page)
3. NOPF (2 pages)
4. Facility Aerial Photo and Main/Fuel Lab Diagram (4 pages)
5. May 14 - 16, 2019, EPA and December 8, 2021, MoDNR Inspection Reports (46 pages)
6. Notification Acknowledgement/Verification Report Form (2 pages)
7. CSA 3, 4, and 5 inventory lists (9 pages)
8. SSTU Discussion E-Mail (5 pages)
9. Carbon Cannister System Daily Inspection Logs (6 pages)
10. Photo of SSTU (1 page)
11. April 12, 2023, E-mail to Facility - Additional NOPF (2 pages)
12. 2021 Biennial Report (110 pages)
13. MoDNR Part I Permit (98 pages)
14. Liquid Fuel Storage/Blend Tanks & Containment Areas and Liquid Fuel Tanker Truck Unloading Area Inspections for February 10 –16, 2023 (8 pages)

Digital Image Log (53 pages/48 photos)