

REPORT OF RCRA COMPLIANCE EVALUATION INSPECTION

At

**Drake University
2507 University Avenue
Des Moines, Iowa 50311
(515) 271-3804**

EPA ID Number: IAD984571810

On

March 16, 2022

By

**U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 7
Enforcement and Compliance Assurance Division (ECAD)**

1.0 INTRODUCTION

At the request of the Enforcement and Compliance Assurance Division, I conducted a Resource Conservation and Recovery Act (RCRA) compliance evaluation inspection (CEI) at Drake University (Drake), located at 2507 University Avenue, Des Moines, Iowa, on March 16, 2022. Drake was previously inspected for RCRA compliance on September 10, 2014. This CEI was conducted under the authority of Section 3007(a) of RCRA, as amended. During the CEI, I collected the information and data necessary to determine compliance with the applicable regulatory and statutory requirements. The inspection report and attachments present the results of the CEI.

2.0 PARTICIPANTS

Drake:

Chris Nickell, Director, Environmental Health and Safety (EHS), approximately seven years with the University and in his current position.

Elise Nikolic, Environmental Health Specialist, approximately three years with the University in this position.

Kevin Moran, Executive Director, Facilities Planning and Management (FPM), 1422 27th Street, Des Moines, IA 50311-4505, approximately 27 years with the University.

U.S. Environmental Protection Agency (EPA):

H. D. "Doug" Bryant, CPP, PCI, Civil Investigator (SEE), ECAD/Chemical Branch/RCRA Section

3.0 INSPECTION PROCEDURES

Prior to attempting to begin the inspection on March 15, 2022, I conducted a visual reconnaissance of Drake, searching for areas of concern observable from the adjacent roadway. No environmental issues or areas of concern were observed during this preliminary examination.

During this visual reconnaissance of the campus, I approached the Security office to determine where the client contact's office was located. I was informed that Mr. Nickell's office was located in Room 30 of the Harvey Ingham Building. I was also informed that Drake was observing "spring break" and suggested that I reach out to Mr. Nickell to determine his availability. I called Mr. Nickell from the Security office, determined that he was not on campus, and scheduled a meeting for 09:00, March 16, 2022.

I arrived at a small parking area located in front of the Harvey Ingham Building at approximately 08:48 hours, March 16, 2022. As I parked my vehicle, I was approached by Mr. Nickell and was instructed to park in a specific area. I exited my vehicle and was greeted in the parking area by Mr. Nickell and Ms. Nikolic. We exchanged greetings in the parking area, and I was taken inside the Harvey Ingham Building to a conference room that was used throughout this CEI.

I presented my EPA credentials to Mr. Nickell and Ms. Nikolic and we exchanged business cards (Attachment 1). Mr. Nickell and Ms. Nikolic participated throughout all facets of the CEI, and Mr. Moran participated in the visual inspection of the Facilities Planning and Management (FPM) Building.

I next presented Mr. Nickell and Ms. Nikolic a copy of RCRA section 3007(a), which provides inspection authority. I explained my need to collect accurate information and presented them a copy of Title 18 U.S. Code, Sections 1001 and 1002. They were made aware of Drake's confidentiality rights and Mr. Nickell was informed that a Confidentiality Notice would be provided at the end of the inspection to make or not to make any claims. Mr. Nickell acted as the official facility representative during the inspection and acknowledged receipt of documentation provided during the exit briefing.

The inspection consisted of an entry briefing, a discussion of facility operations, waste generation and waste management, a review of waste management records, emergency preparedness and planning, and a visual inspection of the waste generation and management areas. We toured all of the Fitch Hall (Building 26, Attachment 2), classrooms and laboratories where HW is currently being generated. We also noted learning settings in Harvey Ingham Hall (Building 30, Attachment 2), the Science Connector Building (SCB), and the Cline Hall of Pharmacy and Science (Building 12, Attachment 2) that do not

currently generate any HW in the learning setting. I was provided a campus map and diagram showing where the HW central accumulation area (HWCAA) was located in the Harvey Ingham Building (Attachment 2).

Document photocopies and 22 photographs were collected as inspection documentation (Attachments 1-15). Information collected during the CEI was recorded on a checklist and in field notes. I followed the inspection procedures discussed in the RCRA Compliance Evaluation Inspection Standard Operating Procedure (No. 2321.1C), unless noted differently.

At the conclusion of the inspection, I conducted an exit briefing, during which I summarized my findings and recommendations with Mr. Nickell and Ms. Nikolic. I provided Mr. Nickell a *Confidentiality Notice*, which he signed, indicating no confidentiality claims were made by the facility (see Attachment 3). I provided Mr. Nickell a *Receipt of Documents and Samples* and *Notice of Preliminary Findings* which he signed acknowledging receipt (Attachments 4 and 5 respectively).

The following inspection documents and compliance assistance handouts were left with the facility:

Section 3007 Inspections Sheet (EPA Handout)
RCRA Facility Access Information Sheet (EPA Handout)
United States Code Annotated (EPA Handout)
Notice Regarding Proprietary/Confidential Business Information Submitted to or Collected by EPA in Connection with Inspections (EPA Handout)
Notice of Preliminary Findings (EPA Handout)
Instructions for Responding to a Notice of Preliminary Findings (NOPF) (Reverse of NOPF)
U.S. EPA Small Business Resource Information Sheet (EPA Handout)
Solvent-Contaminated Wipes Final Rule Chart (EPA Handout)
Lead-Based Paint Activities (IDNR Handout)
Excluded Solvent-Contaminated Wipe Rule (IDNR Handout)
Battery Recycling/Disposal (IDNR Handout)
Universal Wastes Including Aerosol Cans (IDNR Handout)
TCLP Waste Determination Testing (IDNR Handout)
Environmental Compliance Assistance Centers (EPA Handout)
e-Manifest Fact Sheet (EPA Handout)
RCRA Online A Quick Reference Guide (EPA Handout)
Emergency Response Program (EPA Handout)
Security Awareness (EPA Handout)
Managing Your Hazardous Waste: A Guide for Small Business (EPA Handout)

4.0 FINDINGS AND OBSERVATIONS

4.1 Facility Information and Operations

The Drake campus is located in the north center of Des Moines, Iowa. Drake is a private

university that offers undergraduate and graduate programs, including professional programs in business, law, and pharmacy. Drake's law school is among the 25 oldest in the United States. Drake was founded in 1881 by George T. Carpenter, a teacher and pastor, and Francis Marion Drake, a Union General during the Civil War. Drake employs approximately 1,239 personnel. Classes are offered from 08:00-22:00, Monday through Friday. Selected staff work two overlapping shifts from 05:00-11:00 and 11:00-05:00. The Drake campus occupies approximately 144 acres with approximately 62 buildings (Attachment 2). The campus is surrounded by residential areas and small businesses in an older area of Des Moines. The North American Industry Classification System (NAICS) code for this facility is 611310 – Colleges, Universities, and Professional Schools.

Mr. Nickell explained that Drake is primarily a teaching university, with less emphasis on pure research. Waste is generated in academic laboratories and classrooms as well as a maintenance shop located in the FPM building. Wastes generated in the academic environment are cyclical, based upon student populations and academic courses offered. The maintenance shop supports campus vehicle and facility maintenance activities year-round.

Mr. Nickell added that in-person academic activities were suspended in the spring 2020 timeframe and resumed in the spring 2021 timeframe. Wastes routinely generated within the learning laboratories and classrooms were not generated during this period. However, routine vehicle and facility maintenance activities were conducted without significant interruption.

4.2 RCRA Status

Drake was previously inspected September 10, 2014 for RCRA compliance as a conditionally exempt small quantity generator (CESQG) of HW, generating between 100 and 1,000 kg of hazardous waste and less than 1 kg of acutely toxic hazardous waste monthly and accumulating less than 1,000 kg of hazardous waste at one time. One finding was documented during that inspection, described below in Section 5, Summary.

Drake notified the EPA on September 6, 2016, that it is a very small quantity generator (VSQG) of D001, D002, D003, D006, D007, D008, D009, D011, D018, D022, D025, D039, F003, F005, P105, P116, U003, U012, U019, U037, U044, U048, U070, U080, U196, U211, and U220 HW (Attachment 6). A review of the most recent uniform hazardous waste manifest (UHW) spanning the period 12/20/2020 thru 12/16/2021 confirmed that Drake routinely generates less than 100 kg/month of non-acute HW and less than 2.2 kg of acute HW monthly. I verified waste generation for this period using a waste management database report that is created to inventory generated wastes (Attachment 12). Therefore, I inspected them as a VSQG of HW. Drake has converted portions of campus lighting to light emitting diode (LED) fixtures. However, many buildings still use fluorescent lighting. Spent fluorescent lamps are managed as universal waste (UW). Drake also manages spent batteries as UW, therefore I inspected Drake as a small quantity handler of universal waste (SQHUW). Drake generates used oil in the maintenance shop located inside the FPM building.

4.3 Facility Waste Streams and Management

Drake has contracted Tradebe Treatment and Recycling, LLC (Tradebe) for HW management. HW shipments are picked up and transported by Tradebe Transportation (INR000123497) and transported to the Tradebe Treatment and Recycling (IND000646943) designated facility for appropriate management.

Mr. Nickell provided a Waste Management Plan (Attachment 7) that provides internal guidance for the proper management/disposition of wastes generated by Drake. This document prescribes procedures used throughout Drake and refers to Drake's Environmental Health and Safety (EHS) Department, comprised of Mr. Nickell and Ms. Nikolic. Generally, wastes generated in the classrooms/laboratories are managed as if they were hazardous waste while in the learning classroom/laboratory setting. When no longer viable, the used, expired, waste chemicals are containerized and picked up from the classroom/laboratory by EHS. EHS personnel perform a perfunctory HW determination to ensure that the waste is properly containerized for transit from the learning setting. EHS transports the waste from the locus of generation to the hazardous waste central accumulation area (HWCAA) located in Room 3B, Harvey Ingham Building (Room 3B, Attachment 2). A hazardous waste determination is made by EHS and the waste is weighed, labeled, and entered into an automated inventory database using a computer located inside the HWCAA. A copy of the inventory used to generate the most recent HW shipment is shown at Attachment 12 and a copy of the current waste inventory is shown at Attachment 14. The containerized and labeled containers of waste are either combined with 55-gallon drums containing common HW or stored in smaller containers inside an appropriate cabinet located inside the HWCAA. There are several cabinets inside the HWCAA for Flammables, Acids, and Toxic wastes. Non-RCRA hazardous waste is also stored in a separate area in Room 3B. Both HW and non-RCRA hazardous wastes stored in Room 3B are inventoried, placed into lab packs, picked up and transported off-site by Tradebe. Mr. Nickell stated that Drake has customarily shipped HW off-site annually during the month of December.

Mr. Nickell explained that Drake currently has a Special Waste Permit (77-SWA-240-14) with the Des Moines Metro Waste Authority that remains in effect until June 15, 2024. This permit allows Drake to dispose of approximately 4,000 pounds of special waste quarterly. The special waste authorized for permitted disposal includes non-RCRA hazardous laboratory debris, to include autoclaved laboratory waste, glassware, pharmaceutical waste, Personal Protective Equipment (PPE), and biologically contaminated materials. Mr. Nickell stated that Drake does not generate any pharmaceutical waste HW.

This section of the CEI describes the waste streams generated by the university, including waste determinations and waste codes, generation process and rate, on-site management, and ultimate disposition. The following discussion of waste streams is based on conversations with Messrs. Nickell and Moran and Ms. Nikolic and a visual

inspection of the waste generation and storage areas.

Drake generates and manages the following waste streams:

Nonhazardous Chemical/Pharmaceutical Waste: Mr. Nickell stated that various quantities of nonhazardous chemical wastes are generated sporadically in the learning laboratories from science education, i.e., chemistry and biology laboratory classes. Mr. Nickell stated that nonhazardous pharmaceutical waste is also generated from pharmacy education. Waste generated in the learning laboratories is managed as outlined in Attachment 7. All used chemicals and chemical waste generated in the classrooms and/or laboratories are treated as hazardous waste while in the learning setting. Drake staff/faculty request that the used, unused, expired, or unknown chemicals be picked up by the EHS staff. A preliminary waste determination is conducted by EHS at the time of pick-up. The waste is transported by EHS from the learning setting to the HWCAA located inside Room 3B. A formal HW determination is made by EHS inside the HWCAA. Certain nonhazardous chemical wastes have been permitted for discharge into the City of Des Moines Publicly Owned Treatment Works (POTW) as described in Attachment 7. Nonhazardous waste chemicals not permitted for discharge to the POTW are containerized and stored in Room 3B. Tradebe picks up and transports this waste stream off site to its facility. Drake generates approximately two 55-gallon drums of nonhazardous chemical waste annually. Mr. Nickell added that virtually all of the waste generated from pharmacy education has been determined to be nonhazardous, based upon product and process knowledge.

Hazardous Chemical Waste: Mr. Nickell stated that Drake generates various quantities of hazardous chemical wastes sporadically in the learning laboratories from science education, i.e., chemistry and biology laboratory classes. HW is routinely generated in the chemistry laboratories year-round and HW is normally generated in the Biology laboratories during the Fall (this reflects HW generation in the Biology laboratories associated with frog dissection and desiccant). Waste generated in the learning laboratories is managed as HW based upon product and process knowledge and is handled as outlined in Attachment 7. During the previous 12 months, Drake manifested hazardous chemical waste with the following EPA waste codes: D001, D002, D003, D007, D011, D022, F003, U117, U154, and P098. A copy of the waste inventory database (Attachment 12) and the Uniform Hazardous Waste Manifest (UHWM) documenting this shipment of HW (Attachment 13) is discussed in Section 4.5, Documentation below. I determined that Drake generates between 30-80 kg of HW monthly and a total of 1 kg of P098 waste annually. Tradebe lab packs, picks up and transports this HW chemical waste stream off site where this waste is stored/bulked and transferred with no treatment or recovery at its facility or blended for energy recovery.

Waste Paper Disposable Wipes: Waste paper disposable wipes are generated throughout the facility. The waste paper disposable wipes are used for general cleaning of dirt and grime. The waste paper disposable wipes generated in the learning setting have been determined to be non-RCRA hazardous by virtue of product and process

knowledge. The waste paper disposable wipes are disposed in general trash. Mr. Nickell estimated that Drake generates between 300-500 waste paper disposable wipes weekly. Waste paper disposable wipes are also generated in the maintenance shop located inside the FPM building. The wipes used in the maintenance shop are used to clean grease and grime from machinery and vehicular parts. Commercial degreasing products are often used with the wipes in the maintenance shop, e.g., brake cleaner, glass cleaner, and miscellaneous cleaning products. Mr. Moran estimated that fewer than 50 waste paper disposable wipes are generated in the maintenance shop weekly. Mr. Moran stated that the waste paper disposable wipes are disposed in the general trash.

Waste Sharps: Mr. Nickell stated that Drake generates blades (scalpels, razors), hypodermic needles with attached syringes, glass slide covers, microtome blades, and lancets in the learning classroom/laboratory setting. Mr. Nickell stated that the waste sharps have been determined to be non-RCRA hazardous by virtue of product and process knowledge. Waste sharps are collected in sharps containers strategically located in classrooms/laboratories. The sharps containers are prepaid disposal boxes capable of holding approximately 50 pounds of waste sharps. When full, the waste sharps containers are transported to the Des Moines Metro Authority Hazardous Waste Drop-Off, located at 1105 Prairie Drive, Bondurant, Iowa. Mr. Nickell estimated that Drake generates approximately 200 pounds of waste sharps annually.

Autoclaved Cultures and Disposables: Mr. Nickell stated that Drake generates petri dishes, disposable culture flasks/tubes, personal protective equipment (PPE) and pipettes in the learning classroom/laboratory setting. Autoclaved cultures and disposables, to include PPE, are collected in “Autoclave Bags” strategically located in classrooms/laboratories. These bags are picked up by Drake personnel and transported off-site as special waste as described above. Mr. Nickell estimated that Drake generates between 500-1,000 pounds of autoclaved cultures and disposable waste annually. The autoclaved cultures and disposables have been determined to be non-RCRA hazardous, by virtue of product and process knowledge.

Lab Glass: Mr. Nickell stated that Drake generates broken and unbroken glass in the classroom/laboratory educational setting, to include pipette tips, disposable pipets, and broken glassware. The lab glass is collected in lined cardboard containers strategically placed in classrooms and laboratories. The cardboard containers are labeled with the words “Glass Disposal” and are picked up and transported off-site as special waste as described above. Mr. Nickell estimated that Drake generates approximately 500 pounds of waste lab glass quarterly. Mr. Nickell stated that the waste lab glass has been determined to be non-RCRA hazardous, by virtue of product and process knowledge.

Animal Bodies and Tissues: Mr. Nickell stated that Drake generates approximately 600 pounds of animal carcasses, body parts, and tissues annually in the classroom/laboratory setting. The waste animal bodies and tissues have been determined

to be non-RCRA hazardous, by virtue of product and process knowledge. The waste animal bodies and tissues are picked up and transported off-site by Stericycle, 2355 Waukegan Road, Bannockburn, Illinois, for incineration.

Biologically Contaminated/Biohazardous Waste: Mr. Nickell stated that Drake generates biologically contaminated waste in the classroom/laboratory environs. Biohazardous waste consists of pathogenic waste, DNA/RNA waste, and “dripping” human liquids/tissue. The biohazardous waste is collected in red biohazard containers lined with red biohazard bag, strategically located in classrooms and/or laboratories. Absorbent materials contaminated with blood, vomit, or other human fluids and fully absorbed or dried blood (gauze, bandages, test strips, or swabs) are collected in lined, white cardboard containers labeled with the words “Biologically Contaminated Waste” and strategically placed in classrooms and/or laboratories. Mr. Nickell stated that these wastes are rarely generated, estimating that no more than 25 pounds of biologically contaminated/biohazardous waste is generated annually. The biologically contaminated/biohazardous waste is picked up by Drake personnel and transported off site to the Metro HW facility located in Bondurant, Iowa.

Empty Chemical Containers: Mr. Nickell stated that Drake generates a variety of empty chemical containers in the classrooms and laboratories. Labels are removed or marked out and the containers are placed in the glassware disposal containers located in the classrooms/laboratories. The empty chemical containers have been determined to be RCRA empty and non-RCRA hazardous, by virtue of product and process knowledge. The empty chemical containers are disposed as permitted special waste. Mr. Nickell estimated that Drake generates between 500-800 pounds of empty chemical containers annually.

Waste Paint/Flammable Liquids: Mr. Nickell stated that Drake generates small amounts of waste oil-based paint, varnish, paint thinner, and solvent while conducting facilities maintenance activities in the FPM area. The waste paint/flammable liquids are managed as D001 characteristic waste and stored in a separate area of Room 3B in the HWCAA. Mr. Nickell estimated that Drake generates less than five gallons of waste paint/flammable liquids annually.

UW-Batteries: Mr. Nickell stated that Drake generates approximately 125 pounds of rechargeable batteries managed as UW-Batteries annually. The UW-Batteries are stored in a five-gallon container and are picked up and transported off-site by Tradebe for recycling.

Waste Parts Washer Solvent: Mr. Nickell stated that Drake generates non-RCRA waste parts washer solvent in the maintenance shop. According to Mr. Nickell, the solvent used in the parts washer is “Ozzy juice®” and is non-RCRA hazardous, by virtue of product and process knowledge (Attachment 8). The parts washer has a 25-gallon capacity and is used to degrease parts and equipment undergoing preventive maintenance in the maintenance shop. Neither Mr. Nickell nor Mr. Moran knew how

much waste parts washer solvent was generated from the parts washer in the maintenance shop.

Scrap Metal: Mr. Nickell stated that Drake generates approximately 95 tons of scrap metal annually. The scrap metal is picked up and transported off site by Alter Metal Recycling-Des Moines (Alter), 1810 Hull Avenue, Des Moines, Iowa, for recycling.

Waste Aerosol Cans: Mr. Moran stated that Drake generates 10-20 waste aerosol cans monthly in the FPM facility. Waste aerosol cans were generated from spray paint, household cleaning products, glass cleaner, lubricants, and brake cleaner. Mr. Moran stated that empty waste aerosol cans were disposed in the general trash. Mr. Nickell and I discussed recent changes regarding the management of waste aerosol cans as UW and topical compliance assistance literature was provided during the exit briefing.

Used Oil: Mr. Moran stated that Drake generates between 180-200 gallons of used oil annually, generated by conducting preventive vehicular maintenance activities in the Maintenance Shop, operated by FPM. The used oil is stored in 55-gallon drums stored inside a small room located outside the maintenance shop. The used oil is picked up and transported off-site every two years or so by Jebro, Inc. (Jebro), 2303 Bridgeport Drive, Sioux City, Iowa, for recycling. Bills of Lading for the two most recent used oil transactions are attached (Attachment 9).

Used Oil Filters: Mr. Moran stated that Drake generates 20-30 used oil filters annually, generated by conducting preventive vehicular maintenance activities in the Maintenance Shop, operated by FPM. The used oil filters are crushed using an oil filter system located inside the maintenance shop. The used oil collected in the crusher is stored in a 55-gallon drum located in a storage area outside the Maintenance Shop. The crushed used oil filters are managed as scrap metal and are picked up and transported off-site by Alter Metal Recycling-Des Moines (Alter), 1810 Hull Avenue, Des Moines, Iowa, for recycling.

Cloth Shop Rags: Cloth shop rags are used to clean equipment and machinery in the maintenance shop. The maintenance supervisor was not available at the time of this CEI to discuss the use of cloth shop rags. Mr. Moran was not aware of the generation rate or the disposition of cloth shop rags used in the maintenance shop.

General Trash: Mr. Nickell stated that Drake operates a refuse collection vehicle that picks up general trash generated on campus from 20-25 roll-container of varied capacity, totaling 50-60 tons of trash monthly during the academic year. The general trash consists of waste office paper, lunch wastes, and miscellaneous packing materials. Mr. Nickell stated that the general trash has been determined to be non-RCRA hazardous, by virtue of product and process knowledge. The general trash is picked up daily, Monday-Friday, and transported off-site to the Metro Central Transfer Station-Des Moines, 4198 Delaware Avenue, Des Moines, Iowa, for transfer to sanitary

landfilling.

Waste Cardboard: Mr. Nickell stated that Drake generates two cardboard waste streams. He stated that Drake generates approximately 70 tons of waste cardboard in the dining services area, catering, and “commissary store” that is compacted and sent to GreenRU, 2255 Little Wall Lake Road, Blairsburg, Iowa for recycling. He added that Drake generates approximately 60 tons of regular cardboard that is collected with general university recycling roll-off bins located throughout the campus. This waste cardboard is taken to Mid-American Recycling, 2742 East Market Street, Des Moines, Iowa, for recycling.

Waste Fluorescent Lamps: Mr. Moran stated that Drake generates approximately 3,000 waste fluorescent lamps annually. The waste fluorescent lamps are stored in cardboard containers located in the FPM Building and are managed as UW. Upon request, facilities management personnel remove spent lamps and install new fluorescent lamps throughout the campus. The UW-lamps are picked up and manifested off-site annually by A-TEC Recycling (A-TEC), P.O. Box 57580, Pleasant Hill, Iowa, for recycling. Waste fluorescent lamps were most recently picked up and transported off-site by A-TEC on July 21, 2021 (Attachments 10 and 11).

Lead-Acid Batteries: Mr. Moran stated that Drake generates approximately six spent lead-acid batteries annually in the Maintenance Shop while performing routine vehicular preventive maintenance activities. Mr. Nickell stated that the lead-acid batteries are exchanged at various commercial enterprises, in accordance with the provisions of the 40 CFR §266, Subpart G exemption.

Electronic Waste (E-waste): Mr. Nickell stated that Drake generates between approximately 12 pallets of E-waste annually. The E-waste is picked up and transported off-site to Midwest Electronic Recovery, 7420 University Avenue, Clive, Iowa, for recycling.

4.4 Visual Inspection of Facility Waste Stream Management

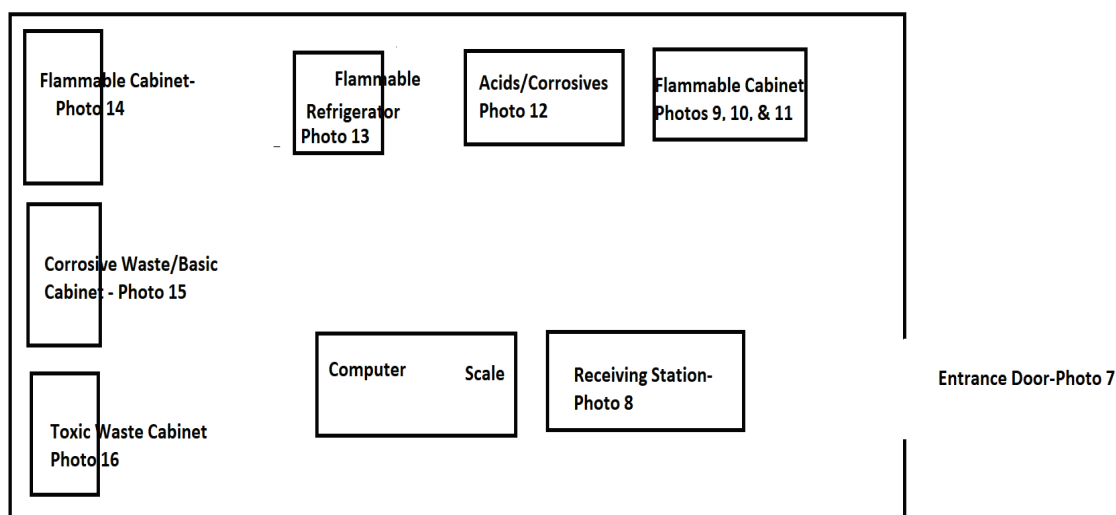
A visual inspection of the facility was conducted to observe waste stream management practices and document regulatory compliance. Photographs, checklists, and field notes were used to document observations made during the visual inspection. A Photo Log was created, and photos taken during the inspection appear in Attachment 15.

HW is typically generated during classroom/laboratory experimentation in the General Chemistry Laboratories, Room 204 and 205 in Fitch Hall. HW is also generated in the Analytical Chemistry Laboratory housed in Room 201, Fitch Hall. Photos 1 and 2 show HW stored inside Room 204; photos 3 and 4 show HW stored inside Room 205; and Photos 5 and 6 show HW stored inside Room 201. I did not observe any HW container management areas of concern in these laboratories. As mentioned previously, we toured other classrooms and laboratories during this visual inspection. However, HW was not

being generated or stored in any other classrooms/laboratories at the time of this inspection.

HW generated in the classrooms/laboratories is picked up by EHS personnel and transported to the HWCAA located in Room 3B, as previously discussed. I observed the entry door to the HWCAA as shown in Photo 7. Emergency contact information was prominently displayed on the entry doors to the HWCAA. A HW determination station is located immediately inside the HWCAA (Photo 8). A scale and a computer were located next to the station. The scale is used to weigh the incoming waste and the computer is used to enter data into Drake's inventory control data base. HW containers are stored in separate cabinets located inside the HWCAA. I observed one flammable cabinet pictured in Photos 9-11. This was the only cabinet that contained HW inside the HWCAA at the time of this CEI. Separate cabinets were available for incompatible chemicals. A cabinet labeled Acids/Corrosives is shown in Photo 12. A Refrigerated Flammables container (refrigerator) is shown in Photo 13. An additional Flammables Cabinet (Photo 14), Corrosive Waste/Basic Cabinet (Photo 15, and Toxic Wastes Cabinet (Photo 16) were located in the HWCAA. Non-RCRA hazardous waste and 55-gallon drums for HW were located immediately outside a door leading out of the HWCAA and are shown in Photo 17.

A diagram of the primary HW storage area located in Room 3B is shown below:



Wastes are also generated and stored in the FPM Building located at 1422 27th Street, Des Moines, Iowa, and shown as Building 24, Attachment 2. The FPM building houses a vehicular/mechanical maintenance shop, UW storage and used oil.

I observed the UW storage area located inside the FPM building (Photos 18-20). Closed, labeled, cardboard containers were used to store spent fluorescent lamps and spent LED lamps. I did not observe any UW container management concerns. I did not observe any UW or lead-acid batteries in the UW storage area.

I observed a CRC SmartWasher® parts washer inside the maintenance shop (Photo 21). The parts washer cleaned parts using Ozzy-juice® and did not generate RCRA-hazardous waste solvent.

I observed waste cloth and paper disposable wipes being generated in the maintenance shop (Photo 22). The wipes were observed on a maintenance work bench immediately adjacent to several chain saws that had been placed on the bench. I observed a can of pre-mixed fuel that Mr. Moran stated was used with the chain saws. I asked if the wipes could have been used to clean the chain saws and wipe up spilled premixed fuel, to which they responded he “did not know.” No one was working in the maintenance shop at that time. I asked Mr. Moran how the waste cloth and paper disposable wipes were managed. He responded that he thought the waste cloth and paper disposable wipes were disposed in the general trash. I asked Messrs. Moran and Nickell if Drake used brake cleaner commercial product on cloth and paper disposable wipes that were used to clean equipment and machinery in the maintenance shop. They responded that Drake maintenance personnel used commercial products, to include CRC Brakleen® brake parts cleaner, while performing maintenance activities in the maintenance shop. The brake cleaner product was applied to wipes and used to clean parts and machinery. I asked Messrs. Moran and Nickell if a HW determination had been conducted on waste cloth and paper disposable wipes that were disposed in the general trash, to which they responded that they were not aware of any such HW determination. **Drake must conduct a HW determination on the cloth and waste paper disposable wipes that may have been contaminated with fuel and potential HW solvent products and disposed in the general trash in accordance with 40 CFR §262.11, NOPF 1a.**

I observed a nearly full general trash container located in the maintenance shop shown in Photos 23 and 24. I observed a variety of items in the trash container, to include an absorbent mat that could have been contaminated with used oil. I also observed nitrile gloves, paper disposable wipes, an empty windshield washer bottle, a spent headlamp, and other miscellaneous items. I asked if the absorbent pad appeared to display the coloration of used oil, to which Messrs. Moran and Nickell replied affirmatively. I asked Mr. Moran if anyone had performed a waste determination on the contents of the general trash container, to which he responded negatively. **Drake must conduct a HW determination on the general trash located inside the maintenance shop that appeared to contain an absorbent pad that may have been contaminated with used oil in accordance with the provisions of 40 CFR §262.11, NOPF #1b.**

I observed a used oil filter crushing unit located inside the maintenance shop (Photo 25). Mr. Moran stated that the crushed used oil filters were managed as scrap metal and picked up and transported off-site by Alter for recycling. Mr. Moran estimated that 20-30 crushed waste oil filters are generated annually in the maintenance shop from routine preventive maintenance activities.

I observed a storage room outside the maintenance shop that housed used oil and other

products. I observed three full 55-gallon drums filled with used oil. One of the 55-gallon drums is shown in Photo 26. The drums were in good condition and adequately described the nature of drum contents.

4.5 Documentation

Prior to this CEI, I reviewed four electronic uniform hazardous waste manifests (UHWM) spanning the period of June 30, 2018, to present. Mr. Nickell provided manifests spanning the previous three years. I did not observe any discrepancies with the shipping documentation/manifests maintained by the facility.

Mr. Nickell and I discussed the rolling HW inventory data base maintained by EHS. Mr. Nickell explained that Drake customarily ships HW off-site during the academic winter break, normally occurring annually during the month of December. He explained that he customarily sends a copy of the HW inventory spreadsheet maintained by EHS to Tradebe with his request for a waste pick up. This ensures that the lab pack activities undertaken on site by Tradebe are accomplished expeditiously. He provided a copy of the waste inventory that was sent to Tradebe prior to the last pick up that occurred December 16, 2021 (Attachment 12). He also provided a copy of UHWM #022784047JJJK, dated 12/15/21, generated to manifest the and document the shipment (Attachment 13). I reviewed both documents and did not observe any discrepancies with the documentation.

I requested and received a copy of Drake's spreadsheet showing the current inventory of waste stored in the HWCAA and Room 3B area (Attachment 14).

5.0 SUMMARY

The following finding was documented during the RCRA CEI previously conducted April 4, 2012 when the facility was inspected as a conditionally exempt small quantity generator (CESQG) of HW, a SQHUW, and a generator of used oil:

Failure to label universal waste lamps as "universal waste lamps," "waste lamps," or "used lamps," as required by 40 CFR 273.14(c) (NOPF No. 1).

The following preliminary findings were documented during this CEI:

NOPF No. 1: 40 CFR §262.11: Conduct a HW determination on:

- a. Waste cloth and paper disposable wipes used in the maintenance shop with commercial products and disposed in the general trash; and**
- b. General trash container located inside the maintenance shop containing an absorbent pad.**

Other than the items specifically noted in this narrative, I observed no additional issues or potential findings. However, further EPA review may change or add to my findings.

HURLEY BRYANT
(Affiliate)

Digitally signed by HURLEY
BRYANT (Affiliate)
Date: 2022.04.05 13:26:27 -05'00'

Date: 4/10//2022

H. D. "Doug" Bryant, CPP, PCI
Civil Investigator (SEE)

AMBER WHISNANT

Digitally signed by AMBER
WHISNANT
Date: 2022.04.18 21:46:27 -05'00'

Date: _____

Amber Whisnant
Chief, RCRA Section, Chemical Branch
Enforcement and Compliance Assurance Division

Attachments:

- 1) Business Cards (1 page)
- 2) Campus Map and HWCAA Site (2 pages)
- 3) Confidentiality Notice (1 page)
- 4) Receipt of Document and Samples (1 page)
- 5) Notice of Preliminary Findings (NOPF) (2 pages)
- 6) Hazardous Waste Site Info Verification Report for Inspector (1 page)
- 7) Drake University Waste Management Plan (10 pages)
- 8) Safety Data Sheet (SDS), Ozzy-Juice® (7 pages)
- 9) Jebro, Inc. Bills of Lading, dated 6/29/2017 and 10/1/2020 (2 pages)
- 10) A-TEC Recycling Bill of Lading # 210712-53748, dated July 12, 2021 (1 page)
- 11) Certificate of Recycling, A-TEC Recycling, Inc., dated July 13, 2021 (1 page)
- 12) Drake University HW Inventory spreadsheet (7 pages)
- 13) UHWM #022784047JJK, dated 12/16/21 (21 pages)
- 14) Drake University Current HW Inventory spreadsheet (1 page)
- 15) Photo Log (2 pages) and Visual Inspection Photos (26 pages)