

REPORT OF RCRA COMPLIANCE EVALUATION INSPECTION

AT

U.S. ARMY GARRISON - FORT LEONARD WOOD (USAG – Fort Leonard Wood)

8112 Nebraska Avenue, Building 11400
Fort Leonard Wood, Missouri 65473
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EPA ID Number: MO3213720979

ON

May 16 - 18, 2023

BY

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region VII
Enforcement and Compliance Assurance Division

1.0 INTRODUCTION

At the request of the Enforcement and Compliance Assurance Division/Chemical Branch/RCRA Section (ECAD/CB/RCRA) of the U.S. Environmental Protection Agency (EPA) Region 7, I conducted a compliance evaluation inspection (CEI) at the USAG – Fort Leonard Wood Post located in Fort Leonard Wood, Missouri, on May 16-18, 2023. The inspection was conducted under the authority of Section 3007 of the Resource Conservation and Recovery Act, as amended. During the CEI, I collected information and data necessary to determine compliance with the applicable regulatory and statutory requirements. This report and attachments present the results of the inspection. Based on information obtained prior to and during the inspection, I inspected the site as a Large Quantity Generator (LQG) of Hazardous Waste, a Small Quantity Handler of Universal Waste, and a Generator of Used Oil.

2.0 PARTICIPANTS

USAG – Fort Leonard Wood: (FLW)

Ron Blevins, Hazardous Waste Program Manager - Environmental Protection Specialist

Charlie Neel, Chief-Environmental Division

Shannon Cain, Acting Chief of Compliance - Physical Scientist (Exit Briefing only)

Chad Strain, Environmental Specialist – C&C Environmental (C&C)

Wyatt Wilt, Environmental Technician – C&C

Jeremy Chamberlain, Environmental Technician - C&C

Karen Power, Supply Supervisor - Duval Center / Tank & Automotive Command (TACOM)
Michael Parsons, Maintenance Officer - Duval Center/TACOM
Sean Morgan, Quality Assurance Specialist - Duval Center/TACOM
Chad Bancroft, Maintenance Supervisor - Duval Center / Logistics Readiness Center (LRC)
PFC Cheyenne Rodriguez - Veterinarian Clinic
SGT Jamie Murphy, Non-Commissioned Officer in Charge (NCOIC) - Hospital Pharmacy
Josh Bates, Safety Manager - Chemical Defense Training Facility (CDTF)
Jody Fry, Environmental Compliance Officer - CDTF
Ryan Wiseman, Supply Technician - Tsay Professional Services (TPS) - Lumber Yard
Greg Tohill, Environmental Coordinator – TPS
Adam Parker, Owner-Parker Termite & Pest Control - Pesticide Shop

Missouri Department of Natural Resources: (MDNR) - Southeast Regional Office (SERO)
Crosley Welch, Environmental Specialist (May 16, 2023, Only)

U.S. Environmental Protection Agency: (EPA)
Trevor L. Urban, Environmental Scientist

3.0 INSPECTION PROCEDURES

I met with Mr. Crosley Welch, from the MDNR-SERO near the facility at 7:30 a.m. We discussed the inspection procedures and format that I would follow as well as any facility issues or concerns and regulatory history. We did not attempt to conduct a drive-by inspection of the site due to the facility being over 60,000 acres in size and having controlled access points. We proceeded to the facility and checked in at the security station located at the main entrance of the facility at approximately 8:15 a.m. I presented my credentials and explained both the purpose of the inspection and the procedures I would follow to security personnel, and I asked to speak with the environmental compliance personnel. The security personnel stated that I would be required to provide them with my driver's license or social security number in order to obtain access to the facility. I provided the security personnel with the Federal Facilities Access Brochure and EPA's Final Access Policy Memorandum and stated that I was not required to provide any personal identifiable information (PII) to access the facility. The security personnel contacted their supervisor, and I contacted Mr. Ron Blevins, Hazardous Waste Program Manager, and informed him of the inspection and explained both the purpose of the inspection and the procedures I would follow. I also informed him of the access issues at the security station. Mr. Blevins stated that he would make some calls and come to the security station to assist me in gaining access. I then called the Region 7, Office of Regional Council and informed Ms. Kate Curl of the access issues and provided her with the FLW contact information for Richard Wise, Chief, Security Operations Division. Mr. Blevins arrived at the security station and informed the security personnel that I would be escorted the entire time at the facility. Security personnel informed Mr. Blevins that there were no exceptions to gaining access to the facility. Ms. Curl contacted me approximately twenty minutes later and asked me if I was opposed to providing the facility with my driver's license and I said "No". Ms. Curl stated that although our general policy is for inspectors to not have to present ID beyond the EPA badge to gain access to federal

facilities, the policy does acknowledge that some exceptions may need to be made for military installations and other high-security facilities. She also stated that after talking with the FLW security representative, it was clear that it was not going to be possible for an exception to be made in this case. Ms. Curl advised me to go ahead and provide my driver's license as identification if I was not opposed to providing the additional PII. I provided the security personnel with my driver's license, and they cleared me to access the facility and provided me with a facility access badge.

Mr. Welch and I joined Mr. Blevins in his vehicle, and we proceeded to his office located at 8112 Nebraska Avenue in Building 11400. We went to the second floor and Mr. Charlie Neel, Chief, Environmental Division joined us, and I began the entry briefing at approximately 10:15 a.m. I presented my credentials and explained the purpose of the inspection and the procedures I would follow during the inspection to Messrs. Blevins and Neel. I then presented a copy of RCRA Section 3007(a), which contains EPA's inspection authority. I explained my need to collect accurate information and presented them with a copy of Title 18 U.S. Code, Sections 1001 and 1002. I then presented them with a copy of the *Notice Regarding Proprietary/Confidential Business Information Submitted to or Collected by EPA in Connection with Inspections* and reviewed FLW's confidentiality rights. I informed them I would provide a Confidentiality Notice at the end of this inspection. The inspection consisted of a discussion of facility operations, waste generation and waste management practices, a review of waste management records, and a visual inspection of the waste generation and management areas. Mr. Blevins stated that he has been the Hazardous Waste Program Manager for seven years at FLW. Mr. Neel stated that he has been the Chief of the Environmental Division for ten years.

Mr. Blevins acted as the official facility representative during the inspection and accompanied me during the entire inspection. Mr. Welch accompanied me during the first day of the inspection and then departed at the end of the day, after he and I discussed the inspection findings. Multiple FLW employees as well as FLW contract employees provided operational information when I inspected their respective facility/production areas. Details of the participants will be discussed below. I followed the inspection procedures discussed in the RCRA CEI Standard Operating Procedure (No. 2321.1E), unless noted differently.

I reviewed the Notification Acknowledgement/Verification Report (Verification Report) with Mr. Blevins (Attachment 1). Based on this review, I made no changes to the Verification Report. The CEI was conducted over portions of three days. On May 16-17, 2023, the entry briefing, discussion of waste streams, discussion of compliance information, and the facility visual inspection occurred. I also began reviewing documents and records. I conducted informal status report-out meetings with the facility representatives that were present at the end of each day on May 16, 2023, and May 17, 2023, and I also made arrival time arrangements and requested records to be reviewed for the next corresponding day. On the morning of May 18, 2023, I completed my review of requested documents and records and performed an exit briefing. I completed my inspection and summarized the findings and recommendations with Messrs. Blevins, Neel and Cain. I prepared and completed a site-specific inspection checklist to document my observations.

At the conclusion of the inspection, during the exit briefing, I provided Mr. Blevins with a Confidentiality Notice and Receipt for Documents and Samples which he signed as acknowledgement of receipt (attachments 2 and 3 respectively). No confidentiality claims were made by FLW. I also provided Mr. Blevins a Notice of Preliminary Findings (NOPF) which he signed to acknowledge receipt (Attachment 4).

A map of the facility obtained during the CEI is included in Attachment 5, and contingency plan aerial photographs/maps of the facility are included as Attachment 6. The 33 photographs taken during the CEI are included in Attachment 7 and are described in this report.

4.0 FACILITY DESCRIPTION

4.1 Facility Information and Operations

The U.S. Army Garrison – Fort Leonard Wood is a Department of Defense installation located in the Missouri Ozarks. The main gate is located on the southern boundary of The City of St. Robert. The post was created in December 1940 and named in honor of General Leonard Wood in January 1941. The primary mission of FLW is to provide combat-ready men and women trained in basic combat skills and chemical, engineering, military police, and transportation disciplines. FLW includes the United States Army Engineer School, the United States Army Military Police School, and the United States Army Chemical School. The post is located on approximately 62,900 acres primarily in Pulaski County, with small portions located in Texas and Laclede counties. The post consists of numerous buildings, special activity areas, storage sheds and bunkers. An alphabetical listing of activities is included on the map in Attachment 5. There is currently a population of approximately 35,000 to 40,000 people on the post. FLW operates 24 hours per day, seven days per week. The Directorate of Public Works includes eleven civilian employees in its Environmental Division.

Mr. Blevins stated FLW utilizes several contractors to perform base maintenance activities. Wastes generated during combat-ready activities is managed by both civilian and active-duty personnel. The 90-day central accumulation area is managed by C&C civilian employees. TPS civilian employees perform multiple activities at the facility to include heating and cooling, electrical systems including main lighting, general housekeeping, indoor and outdoor painting, janitorial cleaning activities and facility grounds maintenance. Adam Parker, owner of Parker Termite & Pest Control, operates out of the pesticides shop and provides insecticide and herbicide services at the facility.

FLW was last inspected by The MDNR on November 17, 2022, as an LQG of characteristic and listed hazardous wastes. Two non-compliance unsatisfactory findings were determined during the inspection and were discussed at the conclusion of the CEI:

- Batteries or battery containers were not clearly labeled or marked as “Universal Waste-Battery(ies)” or “Waste Battery(ies)” or “Used Battery(ies)”.

- Unbroken lamps were not stored in closed, non-leaking containers or packages that are structurally sound and adequate to prevent breakage.

Both of these non-compliance unsatisfactory findings were repeated during this inspection.

4.2 RCRA Status

FLW last notified on November 17, 2022, as an LQG of characteristic and listed hazardous wastes. Mr. Blevins provided me with a copy of the FY23 – 2nd quarter summary report that included the hazardous waste manifest #010390092FLE and land disposal restriction (LDR) as well as the hazardous waste manifest shipment summary from January 1, 2023, to March 31, 2023 (Attachment 8). The summary lists all the wastes generated and shipped off site for the FY23 – 2nd quarter. Mr. Blevins also provided me with a copy of hazardous waste manifest #010390098FLE and LDR dated 5/2/2023 (Attachment 9). A review of its past and current generation rates indicates that FLW has been and is currently an LQG (greater than 1000 kg/month) of RCRA hazardous waste, or (greater than 1 kg/month) of P-listed waste. Mr. Blevins stated he is the Hazardous Waste Program Manager and manages the hazardous wastes generated at the facility utilizing contractor employees and enlisted personnel. Mr. Blevins stated that the facility maintains a profile log that lists the waste profiles for the facility, which lists all hazardous and non-hazardous waste streams generated at the facility and their respective waste codes and disposition. Mr. Blevins provided me with a copy of the hazardous waste profile log during the inspection (Attachment 10). Based on the past and current generation rates of known hazardous waste, I determined FLW to be an LQG of characteristic and listed hazardous wastes, as well as a small quantity handler of universal waste, and a generator of used oil, at the time of the inspection.

4.3 Facility Wastes

FLW generates a large variety of hazardous and non-hazardous wastes and ships hazardous waste once or twice each quarter. The information below pertains to wastes observed during the inspection and does not include all the wastes generated at the facility. The information below was also obtained from hazardous waste shipment records and statements made during the inspection. The following buildings and areas/departments were visually inspected: building 2229 - 90-day hazardous central accumulation area (90-day HCAA), building 2214 – lumber yard, pesticide shop, building 5265 – Duval Center/TACOM/LRC, building 5266 – LRC/paint shop, building 2399 - veterinary clinic, building 310 – hospital, and building 5101 - CDTF.

Mr. Blevins stated that hazardous waste and universal waste satellite accumulation points (SAPs) are inspected quarterly by C&C employees and provided me with a copy of the current hazardous waste and universal waste SAP location lists. I reviewed the lists and the past three years of inspections. I took a copy of the SAP lists as well as the most current inspections performed at building 5265 – Duval Center/TACOM/LRC, dated 3/2/2023 for hazardous waste SAPs, and 3/6/2023 for universal waste SAPs as examples (Attachment 11).

Building 2214 – lumber yard – Mr. Blevins stated that TPS civilian employees perform multiple activities at the facility to include: heating and cooling, electrical systems including main lighting, general housekeeping, indoor and outdoor painting, janitorial cleaning activities and facility grounds maintenance. Messrs. Blevins, Welch and I met with TPS employees, Messrs. Wiseman and Tohill. Mr. Wiseman stated that TPS collects and manages the majority of universal waste lamps for FLW and stores the spent universal waste lamps at building 2214 - lumber yard. During the visual inspection I observed three pallets with approximately 89 boxes of four-foot spent lamps, five round fiberboard containers of four-foot spent lamps, two boxes of six/eight-foot spent lamps, and one round fiberboard container of six/eight-foot spent lamps (Attachment 7, Photographs 7 - 11). Each box or fiberboard container was labeled with the type/length and number of spent lamps it contained. All the universal waste lamp storage containers observed in the lumber yard were labeled as universal waste lamps/bulbs and dated with an accumulation start date of less than one year with the exception of two eight-foot containers. I observed the two containers of six/eight-foot spent lamps being accumulated along the south wall of the building and neither container was dated or labeled as “Universal Waste Lamps”, “Spent Lamps” or “Used Lamps” (Attachment 7, Photographs 9 - 11). I spoke with Mr. Wiseman and asked him why the containers were not labeled as universal waste lamps or dated with an accumulation start date and he stated that it was an oversight. I informed Messrs. Blevins, Wiseman and Tohill that the containers must be labeled as universal waste and dated when the first lamp was added to the container or have a tracking system such as a log to track the length of time the universal waste lamps have been accumulating. Mr. Wiseman stated that he may be able to go back through the work orders to determine the date the waste lamps were generated and believed it was within the last two months.

NOPF 1 – Failure to manage the 6/8-foot universal waste lamps in a container that is labeled with the words “Used Lamps”, “Waste Lamps”, or “Universal Waste Lamps” and failure to date or demonstrate the length of time they are in storage is in violation of 10 CSR 25-16.273(1) incorporating 40 CFR 273.14(e) and CFR 273.15(c) respectively.

Mr. Wiseman labeled the two containers of six/eight-foot spent lamps being accumulated along the south wall of the building as “Universal Waste Bulbs” during the visual inspection, and determined the accumulation start date to be 3/21/2023 for each of them (Attachment 7, Photographs 15 & 16). I again informed Messrs. Blevins, Wiseman and Tohill that the containers must be labeled as universal waste “Lamps”. Mr. Wiseman stated that the label would be changed to Lamps.

I also observed universal waste batteries and mercury manometers being collected and managed as universal wastes during the visual inspection of building 2214 - lumber yard (Attachment 7, Photographs 7 & 8). The batteries were being managed in a wooden box and in a 5-gallon container. The mercury manometers were being collected in a blue 55-gallon container. The containers were labeled as universal wastes and dated with an accumulation start of less than one year. I did not identify any additional RCRA issues.

Pesticide Shop (Building 2273) – The pesticide shop is located near (northeast) of the 90-day

HCAA. Mr. Blevins stated that a contractor is utilized for herbicide and pesticide application throughout the FLW facility. Mr. Blevins stated that Mr. Adam Parker was the owner of Parker Termite & Pest Control and that he utilized the pesticide shop to mix formulations to be sprayed. Messrs. Blevins, Chamberlain, Welch, and I met with Mr. Parker and discussed the operations performed and reviewed any wastes generated from the pesticide operations. Mr. Parker stated that he triple-rinses the products from their original containers when mixing formulations and that the empty original triple-rinsed containers are disposed in the general trash. Mr. Parker also stated that he applies/utilizes all of the formulation that he mixes and only rinses out the sprayer tanks if he is completely finished with the job or needs to change formulations. Mr. Parker stated that the building was used for product storage and non-hazardous rinse water waste only. Mr. Parker stated that the rinse water is comprised of "Round Up" herbicide and rinse water and is collected in the pesticide building and then transferred to the 90-day HCAA for disposal as non-hazardous waste. Mr. Blevins provided me with a copy of the hazardous waste profile log during the inspection which identifies the waste as non-hazardous (Attachment 10). Mr. Parker estimated he generated one tote of "Round Up" herbicide and rinse water waste annually and that he had just transferred a tote to the 90-day HCAA in late February or early March. I did not identify any RCRA issues or observe any pesticide wastes being stored in the building, and I observed no signs of spills or releases inside or outside of the building.

Duval Center (Buildings 5265 and 5266) – Building 5265 is divided into two operations. The southeast side of the Duval Center is operated by TACOM, and the northeast side of the Duval Center is operated by LRC and are both part of the Directorate of Logistics. The paint shop (located in building 5266) is operated by the Duval Center/LRC. Messrs. Blevins, Welch, and I met with Ms. Karen Power and Messrs. Parsons and Morgan during the visual inspection of the Duval Center/TACOM. TACOM services and repairs the larger vehicles and both TACOM and LRC provide routine maintenance activities on a fleet of approximately 1000 vehicles combined. Mr. Parsons stated that the TACOM/LRC vehicle repair shop performs maintenance on approximately 150 vehicles per month.

Mr. Parsons stated used aerosol cans, contaminated fuel liquids and contaminated fuel solids are generated in the TACOM area and are managed as hazardous wastes. Universal waste batteries and used oil are also generated from service operations. Ms. Power stated that the facility utilizes aerosols with non-chlorinated solvents and degreasers as well as lubricants. Mr. Morgan stated that the facility also uses ZEP Dyna-Clean parts washers that uses a stoddard solvent with a flash point of 167° Fahrenheit (F), as well as a Skillcraft brake parts cleaning unit that generates F005/F003 hazardous waste filters when serviced. Shop towels contaminated with various solvents are also generated when servicing the vehicles. The TACOM service area also has a wash bay that generates oily waste water. Wash water from the wash bay is collected through a system of floor grates. The floor grates drain the wash water to an oil/water separator. The water is discharged to the sewer system. There is a paint booth located in the southwest corner of the TACOM service area that is operated by Duval Center/LRC, and I observed no painting operations or waste being accumulated during the visual inspection at the paint booth located in the TACOM service area.

During the visual inspection I observed the SAPs for the used aerosol cans, contaminated fuel liquids, contaminated fuel solids and universal waste batteries located along the northwest wall of the TACOM service area (Attachment 7, Photograph 19). The containers were closed, labeled correctly, and dated. Messrs. Parsons and Morgan did not have a generation rate for the hazardous wastes and stated that when full or upon approaching one year, the satellite accumulation containers (SACs) would be transferred to the 90-day HCAA. Mr. Blevins stated that the wastes would be shipped off-site for fuel blending or disposal by Clean Earth of Calvert City located in Calvert City, KY. I also observed the used oil filter crushing unit and used oil collection container located along the northwest wall of the TACOM service area (Attachment 7, Photograph 19). The container was labeled as used oil. Mr. Parsons stated that the crushed used oil filters are managed as scrap metal. No issues or concerns were noted.

I observed two large metal containers in the TACOM service area labeled as “Clean” and “Dirty Rags” (Attachment 7, Photograph 17). The Dirty Rag container was also labeled as “Excluded Solvent Contaminated Rags” and dated “4-5-23” (Attachment 7, Photograph 18). Mr. Morgan stated that the rags are RCRA exempt and laundered by Robinson’s Cleaners. Mr. Morgan stated that the employees are instructed to be conservative when applying solvents to the rags to prevent any free liquids accumulating in the containers. Mr. Blevins provided me with a copy of their Environmental Management Bulletin for the Management of Used Shop Rags, dated June of 2022 (Attachment 12). I informed Ms. Power and Messrs. Parsons, Morgan and Blevins that the container needed to be labeled as “Excluded Solvent Contaminated Wipes” to be in full compliance and to receive the exemption. Mr. Morgan stated that the signage would be updated immediately. No NOPF was issued at the time of the inspection.

I asked Messrs. Parsons and Morgan how the used oil is managed when generated from the TACOM vehicle repair shop maintenance. Mr. Parsons stated that the used oil is collected in transfer containers and then transferred into one of three underground storage tanks (USTs) located outside at the northeast end of the TACOM service area. Messrs. Parsons and Morgan showed me a receiving tub/sump located along the northeast wall of the TACOM service area and stated that the used oil that is collected from maintenance activities is poured into the tub/sump. The used oil is discharged to the USTs utilizing underground fill pipes. I recommended to Ms. Power and Messrs. Parsons, Morgan and Blevins that the tub/sump and any other container utilized to collect used oil be labeled as “Used Oil”. Mr. Parsons stated used oil collected from used oil filter crushing machine and from the wash bay oil water separator is also collected in one of three USTs. The used oil is analyzed prior to being sent off-site for recycling. I asked Messrs. Parsons and Morgan for the capacity of the three USTs and they stated that they believed that they were 4,000 gallons each but were not sure. Mr. Blevins provided me with an e-mail that confirmed the three USTs each had a capacity of 4,000 gallons (Attachment 13). No issues or concerns were noted.

I observed the ZEP Dyna-Clean parts washers and the Skillcraft brake parts cleaning unit located along the southeast wall of the TACOM service area. Mr. Morgan did not have a generation rate for the ZEP Dyna-Clean parts washers or for the Skillcraft brake parts cleaning unit. The brake cleaning unit uses a non-chlorinated solvent and contract employees change the filters on the

brake cleaning unit and add solvent as required. The spent brake cleaner filters are considered F005 and F003 listed hazardous waste and are taken to the 90-day HCAA and disposed by Clean Earth of Calvert City located in Calvert City, KY.

Building 5265 – Duval Center/LRC – Mr. Blevins and I met with Mr. Bancroft at the Duval Center/LRC on the morning of May 17, 2023. As stated above, the northeast side of the Duval Center is operated by LRC and the Duval Center/LRC service area provides routine maintenance and repair activities on fleet vehicles and equipment for FLW. Mr. Bancroft stated that the waste streams generated by the LRC service area are similar to the TACOM service area. Mr. Bancroft stated that the LRC also manages the paint booths located in the TACOM service area and in building 5266 - paint shop which is located directly southwest of the Duval Center/LRC. Mr. Bancroft stated that the majority of the lead acid batteries generated at FLW are generated at the Duval Center from TACOM and LRC maintenance activities and that he manages the lead acid and leaded glass gel batteries.

During the visual inspection, I observed the battery collection area located in the Duval Center/LRC. Approximately twenty-five pallets of used lead acid and leaded glass gel batteries were observed waiting to be sorted for recycling. I observed several racks labeled as “Batteries for Recycling”, however, the batteries were not labeled as universal waste or dated (Attachment 7, Photographs 21 & 22). I also observed two racks labeled as “Waste Batteries for Recycling” and “Lead Acid” with accumulation start dates of “1 Jan 2023” (Attachment 7, Photographs 23 & 24). Furthermore, I observed an additional twelve pallets of used lead acid and leaded glass gel batteries that had been sorted/processed and weighed and were waiting to be shipped off-site for recycling. The processed batteries were located along the southwest wall of the LRC battery collection area (Attachment 7, Photographs 25 & 26). The twelve processed pallets of batteries each had a total count and weight of the batteries on the pallets but were not labeled as universal waste batteries or dated. Mr. Bancroft stated that his employees sort/process the batteries onto pallets and when he has enough to load a truck, he sells them to a battery recycler. Mr. Bancroft believed the batteries were being managed as universal wastes.

NOPF 3 – Failure to manage the pallets of lead acid and leaded glass gel batteries as universal waste batteries and label the pallets or the individual batteries with the words “Used Batteries”, “Waste Batteries”, or “Universal Waste Batteries” and failure to date or demonstrate the length of time they are in storage is in violation of 10 CSR 25-16.273(1) incorporating 40 CFR 273.14(a) and CFR 273.15(c) respectively. *Rescinded after the conclusion of the inspection.*

Mr. Blevins contacted me after the conclusion of the CEI and informed me that the pallets of used lead acid and leaded glass gel batteries located in the LRC are actually managed in accordance with 40 CFR 266, Subpart G at the LRC, and sold to legitimate commercial entities for reclamation by the installation’s recycling program. He stated that the batteries were not being managed under 40 CFR 273 as Universal Waste and that I was mistakenly told that intact, lead-acid batteries are managed as Universal Waste. He added that the lead acid batteries are currently managed under 40 CFR 266, Subpart G. I asked Mr. Blevins to include the information

in the FLW facility NOPF response. **I also informed Mr. Blevins that NOPF 3 would be rescinded for the batteries being managed in the Duval Center/LRC.**

During the visual inspection of the LRC service area, I observed the SAP for contaminated fuel. The 55-gallon SAC held less than one inch of contaminated fuel and the container was closed, labeled as hazardous waste, and dated "5/16/2023." I did not observe any additional issues or concerns in the LRC service area.

Building 5266 – LRC/paint shop – As stated above, the LRC paint shop is located directly southwest of the Duval Center/LRC building. Messrs. Blevins, Bancroft and I inspected the paint shop, and I observed the SAP for waste paint related materials (WPRM). The 30-gallon SAC was approximately one quarter full of WPRM and the container was closed, labeled as hazardous waste, and dated. I did not observe any issues or concerns in the LRC/paint shop.

Veterinary Clinic – Mr. Blevins and I met with PFC Cheyenne Rodriguez at the veterinary clinic and discussed operations and waste generated at the facility. PFC Rodriguez stated that the facility had one SAP for "Dip Quick Stain/Formalin". I observed the closed, labeled and dated SAC and no issues or concerns were noted. I asked PFC Rodriguez how they dispose of any unusable or expired medicines. PFC Rodriguez stated they would work with the hospital to return the unusable or expired medicines. PFC Rodriguez stated that several expired controlled medicines were secured at the facility due to having no current disposal options. I reviewed the medicines and determined the total amount to be less than 600ml. I recommended to PFC Rodriguez that she work with Mr. Blevins as well as the hospital to insure proper waste determinations and disposal options. No NOPF was issued at the time of the inspection.

Building 310 – Hospital – Messrs. Blevins, Chamberlain and I inspected several SAPs locations at the hospital. I observed two SACs located in room 6321 of the hospital (Attachment 7, Photographs 27 & 28). The 5-gallon container shown on the left in the photos is for waste acetone and the 2-gallon pail on the right is for waste silver nitrate. Both SACs were closed, labeled as hazardous waste and dated 5/5/2023. Messrs. Blevins, Chamberlain and I then met with SGT Jamie Murphy, NCOIC - Hospital Pharmacy. SGT Murphy stated all unusable or expired pharmaceuticals are sent back to the manufacturer using reverse distribution with the exception "IV bags". SGT Murphy stated that the "IV bags" are incinerated. I observed no hazardous waste being generated in the pharmacy or in the laboratory. I did not observe any RCRA issues or concerns in the hospital.

Chemical Defense Training Facility (Building 5101) - Messrs. Blevins, Chamberlain and I met with Ms. Fry and Mr. Bates at the CDTF. The CDTF trains with GB and VX nerve agents. The areas where the nerve agents are utilized are considered "hot", and for the purpose of this inspection these areas were not inspected. I observed the SAP located in the security building at the CDTF. The SAP consisted of a 15-gallon SAC for the collection of contaminated gun cleaning patches. The 15-gallon SAC was closed labeled as hazardous waste and dated. I observed a second SAP located in the maintenance area of the CDTF. The SAP consisted of two 55-gallon SACs located near the northwest wall of maintenance area (Attachment 7, Photographs

29 & 30). The blue 55-gallon SAC shown on the right in the photo is utilized for spent M256 training kits, according to Mr. Bates. The blue 55-gallon SAC was closed, labeled as hazardous waste, and not dated due to it being empty. The training kits will then be disposed by Clean Earth of Calvert City located in Calvert City, KY. as D003 and D009 characteristic hazardous waste via incineration. The black 55-gallon SAC shown on the left in the photo was labeled as hazardous waste, had a diamond label that identified its hazard as flammable solids, and dated 7/15/22, but was not closed. The container was approximately $\frac{3}{4}$ full of solvent/oil contaminated debris and the lid and ring bolt were not secured. I asked Ms. Fry and Mr. Bates where the waste flammable solids are generated, and Mr. Bates stated the solvent/oil contaminated debris is generated in the tool crib area near the southeast wall of the maintenance area. I estimated the distance to be greater than forty feet away. Also, it appeared the solvent/oil contaminated debris was being generated and temporarily collected in the tool crib area and then being transferred into the black 55-gallon SAC.

NOPF 4 – Failure to locate a SAC at or near the point of waste generation and keep the SAC closed unless adding or removing waste is in violation of 10 CSR 25-5.262(2)(C)3 incorporating 40 CFR 262.34(c)(1) and 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(c)(1)(i) referencing 40CFR265.173(a) respectively.

Mr. Bates located a maintenance employee, and he securely closed the 55-gallon container (Attachment 7, Photograph 31). Mr. Blevins stated the SAC would be relocated to the maintenance tool crib where the solvent/oil contaminated debris is generated.

During the visual inspection of the CDTF, I observed a yellow open top container/trash can being utilized to collect five universal waste lamps located in an outbuilding directly northeast of the maintenance area (Attachment 7, Photographs 32 & 33). Four additional waste lamps are visible at the bottom of the container as well as several pieces of broken lamps. I also observed a ballast and five batteries setting next to the trash can. The lamps, ballast & batteries are not being managed as universal wastes. I asked Ms. Fry and Mr. Bates how long the waste lamps and batteries had been accumulating in the outbuilding and they did not know. Mr. Bates checked with their maintenance employees and determined the waste lamps, ballast and batteries had been accumulating for approximately one week or less. Mr. Blevins stated that the CDTF employees should have contacted TPS or C&C to have the universal wastes picked up and managed as universal wastes.

NOPF 1 – Failure to manage the five universal waste lamps in a container that is labeled with the words “Used Lamps”, “Waste Lamps”, or “Universal Waste Lamps” and failure to date or demonstrate the length of time they are in storage is in violation of 10 CSR 25-16.273(1) incorporating 40 CFR 273.14(e) and CFR 273.15(c) respectively.

NOPF 2 – Failure to manage the five universal waste lamps in a closed, non-leaking container or packages that are structurally sound and adequate to prevent breaking and store batteries in a manner to prevent release to the environment is in violation of 10 CSR 25-16.273(1) incorporating 40 CFR 273.13(d)(1) and 40 CFR 273.13(a) respectively.

NOPF 3 – Failure to manage the five batteries as universal waste batteries and label them with the words “Used Batteries”, “Waste Batteries”, or “Universal Waste Batteries” and failure to date or demonstrate the length of time they are in storage is in violation of 10 CSR 25-16.273(1) incorporating 40 CFR 273.14(a) and CFR 273.15(c) respectively.

Mr. Blevins stated he would coordinate with the CDTF personnel and have the spent lamps, batteries and ballast picked up by C&C employees and insure they are properly managed as universal wastes. No additional issues or concerns were observed at the CDTF.

4.4 Other Regulatory Requirements

Building 2229 - 90-day HCAA - FLW has one 90-day hazardous central accumulation area located near the northeast corner of the FLW facility. The 90-day HCAA area is managed by C&C employees, Messrs. Chad Strain, Wyatt Wilt, and Jeremy Chamberlain. Mr. Blevins stated that hazardous waste and universal waste SAPs are inspected quarterly by C&C employees. Mr. Blevins stated that the SAPs are also inspected monthly by FLW personnel who are listed as the point of contact for the SAPs. Mr. Strain stated that when SAPs become full or upon approaching one year, the personnel who are listed as the SAP point of contact will make contact with him to plan for the wastes to be transferred to the 90-day HCAA. Mr. Blevins stated that FLW has made waste determinations on all the wastes currently being generated at the facility and established waste profiles (Attachment 10). Mr. Blevins also stated the active SAPs are maintained on list (Attachment 11) and are matched with the established waste profiles. Mr. Strain stated that when any hazardous waste, non-hazardous waste, or universal waste is transferred to the 90-day HCAA it is weighted, logged in and tracked. Mr. Blevins provided me with a copy of the 90-day HCAA inventory from January 1, 2023, to May 15, 2023 (Attachment 14). The inventory utilizes the Julian date to track the number of days hazardous waste can remain in storage prior to being shipped off-site for disposal. I asked Mr. Blevins why the current inventory included hazardous waste beyond the 90-day Julian date. Mr. Blevins explained that hazardous waste manifest #010390098FLE and LDR dated “5/2/2023” (Attachment 9), includes all the wastes in question and that the inventory list has not been updated to reflect the most current shipment of hazardous waste that occurred on May 2, 2023. Mr. Blevins stated that FLW utilizes Clean Earth of Calvert City located in Calvert City, KY., for disposal services.

Messrs. Blevins, Welch and I met with C&C employees, Messrs. Strain, Wilt, and Chamberlain at the beginning of my visual inspection on May 16, 2023. I observed multiple hazardous and non-hazardous wastes as well as universal wastes batteries being managed in the 90-day HCAA building (Attachment 7, Photographs 1–5). As shown in photo 1, the steel building has a concrete floor and is labeled as “Hazardous Waste” and has “NO Smoking” signs posted. As shown in photos 2–5, the hazardous wastes are stored within a secondary containment area on pallets. I observed each container and they appeared to be closed, labeled correctly, and dated. I also observed totes of the “Round Up” herbicide and rinse water waste non-hazardous discussed above that was generated in the pesticide shop (Attachment 7, Photographs 1 & 2). Mr. Blevins stated that FLW ships hazardous waste off-site once or twice each quarter based on storage

capacity. Mr. Blevins stated the 90-day HCAA also utilizes four 90-day flammable hazardous waste storage lockers located directly north and east of the building 2229 (Attachment 7, Photographs 6, and 12-14). Mr. Blevins stated the lockers are used for the storage of flammable liquids such as contaminated fuel and reactive wastes such as oxidizers. I observed ten 55-gallon containers of hazardous waste liquids in the north lockers and three additional containers in the east lockers, and they appeared to be closed, labeled correctly, and dated. I provided compliance assistance to Messrs. Blevins, Strain, Wilt, and Chamberlain and informed them that the containers of waste being accumulated in the storage lockers must be positioned to allow for inspection and access in the event of a leaking container or spill.

I asked Mr. Blevins if the 90-day HCAA and lockers were inspected, and he stated that the C&C employees inspect the areas daily, weekly, and quarterly. Mr. Blevins provided me with the inspection records for the 90-day HCAA and lockers which included the safety and emergency spill equipment, building loading and unloading area, and container storage areas for the past three years. I reviewed the 90-day HCAA and locker inspection records and they appeared to be in compliance. See Attachment 15 for the 90-day HCAA daily/weekly inspection logs for the month of May 1, 2023, through May 16, 2023, as examples.

Manifests – FLW ships hazardous waste off-site once or twice each quarter. Mr. Blevins provided me with the hazardous waste shipping manifest for the past three years totaling 15 manifests for review. Mr. Blevins also provided me with copies of 2023 hazardous waste shipments (Attachments 8 and 9). I reviewed all 15 hazardous waste shipping manifests, and I observed no issues or concerns. FLW submitted its 2021 Biennial Report online on February 23, 2022. I noted no deficiencies during my review of the biennial report.

Spill Contingency Plan - Mr. Blevins provided me a copy of FLW's spill contingency plan, dated December 2020 (Attachment 16). I reviewed the facility's spill contingency plan in depth and noted that the contingency plan appeared to meet most of the content requirements, including a Quick Reference Guide. The plan also includes minimum training requirements and job duties for emergency responses as well as spill equipment lists and their capabilities. Mr. Blevins stated that FLW has a dedicated fire department and emergency response team that is available 24 hours/day seven days a week. The spill contingency plan states "The On Scene Commander will act as the Emergency Coordinator in the event of a release of POL, hazardous waste, or hazardous waste constituents. The On Scene Commander will initially be the senior Fire Department officer at the scene. Notification should be made through the Fire Department by dialing 911. Once the scene is stabilized, the role of On Scene Commander will be turned over to the Environmental Coordinator. The progression of On Scene Commanders ("P" denotes primary, "A" denotes alternate) for emergency response is as follows:". Mr. Blevins stated that the spill contingency plan is designed to provide complete emergency response coverage at the facility 365 days/year. Mr. Blevins stated that all shifts are covered and that the senior fire official is the emergency coordinator until someone from the environment division arrives. Mr. Blevins stated that all senior fire fighters are trained in hazardous waste response duties. The phone numbers (work issued phones) and position titles of the Emergency Coordinators were included in the Contingency Plan. However, actual names and home addresses of the Emergency

Coordinators are not included in the Contingency Plan. I recommended to Mr. Blevins that FLW provide actual names and home addresses in the spill contingency plan. No NOPF was issued at the time of the inspection.

Training – Personnel training is required by LQG regulations 10 CSR 25-5.262(1) to ensure that employees are thoroughly familiar with proper waste handling procedures relevant to their responsibilities. During the CEI, I asked Mr. Blevins if hazardous waste training is provided to employees. He stated that hazardous waste management training is provided to all employees who handle hazardous waste within six weeks of hiring or being assigned to a job that handles hazardous waste. He also stated that annual refresher training is conducted. I asked Mr. Blevins who conducts the training. He stated that training is conducted online and in person. I reviewed the training records for the last three years for Messrs. Blevins, Strain, Chamberlain, and Wilt (the hazardous waste program manager and the three C&C Environmental employees that manage hazardous waste and the 90-day HCAA). Copies of training records for Messrs. Strain, Chamberlain and Wilt are included in Attachments 17, 18, and 19 respectively. I reviewed the written job descriptions for Messrs. Blevins, Strain, Chamberlain, and Wilt (Attachment 20). I reviewed the training records and no apparent areas of RCRA non-compliance were noted.

Air Emissions: 40 CFR Part 265 Subparts AA, BB, CC - EPA regulations in 40 CFR Part 265, Subparts AA, BB, and CC apply to LQGs. If a LQG manages hazardous waste with an organic concentration greater than 10 parts per million by weight (ppm), the standards specified in Subpart AA apply to hazardous waste air emissions from certain process vents. A process vent used in distillation, fractionation, solvent extraction, thin-film evaporation, air stripping, or steam stripping is regulated by Subpart AA. FLW is not subject to the Subpart AA regulations because the facility does not have any of the process vents listed above.

If a LQG has equipment that contains or contacts hazardous waste composed of 10 percent or greater organics by weight, the facility is subject to Subpart BB standards for inspection and monitoring of the equipment. FLW is not subject to the Subpart BB regulations because it does not have equipment that contains or comes in contact with hazardous waste.

The standards found in Subpart CC apply to LQGs that manage hazardous waste in containers with organic compounds (VOC) concentration that exceeds 500 ppmw. The Subpart CC standards are applicable because the facility accumulates hazardous waste that contains VOCs in 55-gallon hazardous waste accumulation containers. During the CEI, I determined that FLW meets the Subpart CC requirements for containers by using Container Level 1 controls (hazardous waste accumulation containers smaller than 122 gallons that are Department of Transportation [DOT]-approved). I noted no concerns with management of hazardous waste per the Subpart CC air emissions requirements.

4.5 Other RCRA Issues

No additional specific information was requested from the facility during the exit briefing. I provided Mr. Blevins with the following compliance assistance guidance during the exit briefing:

Security Awareness (EPA pamphlet), Commercial Motor Vehicle Transportation Security Planning (EPA information sheet), Publications for Small Businesses (EPA booklet), and U.S. EPA Small Business Resources (EPA Fact Sheet). See attachment 21 for the entry/exit briefing checklist. I reviewed all other applicable RCRA requirements, and no apparent areas of RCRA non-compliance were noted.

5.0 SUMMARY

I inspected FLW on May 16-18, 2023, as an LQG of hazardous waste, a small quantity handler of universal waste, and a generator of used oil. I reviewed pertinent waste management records and visually inspected the waste generation and management areas. These areas include building 2229 - 90-day hazardous central accumulation area (90-day HCAA), building 2214 – lumber yard, pesticide shop, building 5265 – Duval Center/TACOM/LRC, building 5266 – LRC/paint shop, building 2399 - veterinary clinic, building 310 – hospital, and building 5101 – CDTF.

I reviewed all applicable Missouri LQG requirements, and I noted several environmental concerns or areas of RCRA non-compliance during my inspection. Therefore, a NOPF was issued to FLW during the inspection. Further EPA review may change or add to my findings.

NOPF 1 – Failure to manage the 6/8-foot universal waste lamps in the Lumber yard and the five universal waste lamps at the CDTF in a container that is labeled with the words “Used Lamps”, “Waste Lamps”, or “Universal Waste Lamps” and failure to date or demonstrate the length of time they are in storage.

NOPF 2 – Failure to manage the five universal waste lamps at the CDTF in a closed, non-leaking container or packages that are structurally sound and adequate to prevent breaking and store batteries in a manner to prevent release to the environment.

NOPF 3 – Failure to manage the pallets of lead acid and leaded glass gel batteries at the LRC and five batteries as universal waste batteries at the CDTF as universal waste batteries and label the pallets or the individual batteries with the words “Used Batteries”, “Waste Batteries”, or “Universal Waste Batteries” and failure to date or demonstrate the length of time they are in storage. This finding was rescinded for batteries in the Duval Center/LRC after the inspection, but not for batteries in the CDTF.

NOPF 4 – Failure to locate a SAC at or near the point of waste generation and keep the SAC closed unless adding or removing waste.

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Trevor L. Urban
Environmental Scientist
ECAD/CB/RCRA

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

Attachments

1. Notification Acknowledgement/Verification Report (2 Pages)
2. Receipt for Documents and Samples (1 Page)
3. Confidentiality Notice (1 Page)
4. Notice of Preliminary Findings (1 Page)
5. Facility Site Map (2 Pages)
6. Aerial Photographs from Contingency Plan (6 Pages)
7. Photographic Documentation (33 Photos and Photolog) (20 Pages)
8. FY23 – 2nd Quarter Summary Report w/ Hazardous Waste Manifest #010390092FLE and LDR (17 Pages)
9. Hazardous Waste Manifest #010390098FLE and LDR Dated 5/2/2023 (10 Pages)
10. Hazardous Waste Profile Log (8 Pages)
11. SAP and UW Location Lists and Quarterly Inspection Example Forms (6 Pages)
12. Solvent Contaminated Wipes Written Plan (1 Page)
13. Used Oil UST Capacity Memo for Building 5265 - Duval Center/LRC (1 Page)
14. 90-Day Hazardous Waste Storage Building #2229 Inventory as of 5/15/2023 (4 Pages)
15. 90-Day Hazardous Waste Storage Building #2229 Daily and Weekly Inspection Logs for May 2023 (36 Pages)
16. Contingency Plan Dated December 2020 and (Consolidated) May 2023 (163 Pages)
17. Training Certificates for Chad Strain Dated 2021 – 2023 (9 Pages)
18. Training Certificates for Jeremy Chamberlain Dated 2021 – 2023 (9 Pages)
19. Training Certificates for Wyatt Witt Dated 2021 – 2023 (9 Pages)
20. Job Descriptions for Senior Hazardous Waste Specialist and Junior Technician (4 Pages)
21. Site Entry/Exit Briefing Checklist (1 Page)