

RCRA Inspection Report

1) Inspector and Author of Report

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2) Facility Information

Joint Base Naval Weapons Station Charleston
2316 Red Bank Road
Goose Creek, South Carolina 29445-8601
Berkeley County
EPA ID No.: SC8170022620
Latitude: 32.958056
Longitude: -79.936944
NAICS: 928110 National Security
SIC Code: 92811 - National Security

3) Responsible Officials

(b) (6)
Solid and Hazardous Waste Program Manager, Joint Base Charleston
(b) (6)

Mailing Address
Joint Base Charleston
628 CES/CEIE (b) (6)
210 W. Stewart Avenue, Building 721
Joint Base Charleston, South Carolina 29404

4) Inspection Participants

(b) (6), Joint Base Naval Weapons Station Charleston
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(b) (6), Joint Base Naval Weapons Station Charleston
Parvez A. Mallick, U. S. Environmental Protection Agency, Region 4
Mark Anthony Relon, U. S. Environmental Protection Agency, Region 4
(b) (6), South Carolina Department of Health and Environmental Control
(b) (6), South Carolina Department of Health and Environmental Control

5) **Date of Inspection**

June 29, 2022, at 9:30 a.m.

6) **Applicable Regulations**

South Carolina Hazardous Waste Management Act (SCHWMA), S.C. Code Ann. Section 44-56-30, as amended; [Resource Conservation and Recovery Act (RCRA) Sections 3002-3005 (42 U.S. Code – Annotated U.S.C.A. 6925 and 6927)], South Carolina Hazardous Waste Management Regulations (SCHWMR), S.C. Code Ann. Regs. 61-79.260-270, 61-79.273, 61-79.279 [40 Code of Federal Regulation (C.F.R.), Parts 260 - 270, 273, 278, & 279], and Hazardous Waste Permit Number SC8170022620, pursuant to Section 44-56-10 et seq. S.C. Code Ann. Regs. 61-79 of the 1976, as amended.

As the State’s authorized hazardous waste program operates in lieu of the federal RCRA program, the citations of those authorized provisions alleged herein will be to the authorized State program; however, for ease of reference, the federal citations will follow in brackets.

Pursuant to S.C. Code Ann. Regs. 61-79.262.15(a) [40 C.F.R. § 262.15(a)], a generator may accumulate as much as 55 gallons of hazardous waste in containers at or near the point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or without having interim status, as required by Section 44-56-60(a)(2) and (b) of the S.C. Code Ann. § 44-56-60(a)(2) and (b) [Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with S.C. Code Ann. Regs. 61-79.124, 264-267, and 270, and S.C. Code Ann. Regs. 61-79.262.16(b) or R.61-79.262.17(a) [40 C.F.R. § 262.16(b) or §262.17(a)], except as required in S.C. Code Ann. Regs. 61-79.262.15(a)(7) and (8) [40 C.F.R. § 262.15 (a)(7) and (8)], provided that the generator complies with the satellite accumulation area (SAA) conditions listed in S.C. Code Ann. Regs. 61-79.262.15(a) [40 C.F.R. § 262.15(a)] (hereinafter referred to as the “SAA Permit Exemption”).

Pursuant to S.C. Code Ann. Regs. 61-79.262.17 [40 C.F.R. § 262.17] a generator of 1,000 kilograms or greater of hazardous waste in a calendar month is a Large Quantity Generator (LQG) and may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status, as required by Sections 44-56-60(a)(2) and (b) of the S.C. Code Ann. § 44-56-60(a)(2) and (b) [Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with S.C. Code Ann. Regs. 61-79.124, 264-267, and 270, provided that the generator complies with the conditions listed in S.C. Code Ann. Regs. 61-79.262.17 [40 C.F.R. § 262.17], (hereinafter referred to as the “LQG Permit Exemption”).

7) **Purpose of Inspection**

The compliance evaluation inspection (CEI) was conducted at Joint Base Naval Weapons Station Charleston (hereinafter, “NWS Charleston” or the “facility”). The purpose of the CEI was to determine compliance under the Resource Conservation and Recovery Act (RCRA) regulations and statutes, and the corresponding South Carolina regulations. This was an Environmental Protection Agency, Region 4 (EPA) lead inspection.

8) **Previous Inspection History**

On April 22, 2021, September 17, 2020, and July 24, 2019, the SCDHEC inspectors inspected NWS Charleston. The facility was in compliance with the RCRA and South Carolina regulations at the time of the inspections.

9) **Facility Description**

The Joint Base Charleston's core operation began in 1941 as the Army Air Corps at this location. In 1953, the base was designated as Charleston Air Force Base. Under the 2005 Base realignment and Closure commission's recommendations, in October 2010 Charleston Air Force Base and Naval Weapons Station Charleston merged into a single post as Joint Base Charleston. Joint Base Naval Weapons Station Charleston is a naval base conducting joint operations with the Charleston Air Force Base. The installation is managed by the Air Force, with an Air Force Colonel holding the title of joint base commander and a Navy Captain a deputy commander. The 437th Airlift Wing retains both Operations and Maintenance groups, while the Mission Support and Medical groups were realigned under the new 628th Air Base Wing organization.

NWS Charleston provides services and support activities to the Naval Training Center, Naval Educational Services, Forward Base Supplies, Warfare Center and Armory Reserve Center, Naval Consolidated Brig Charleston, Naval Nuclear Propulsion Training, Space and Naval Warfare Systems Center Atlantic, Navy Munitions Command Air Strategic Logistic Activities Charleston, Army Strategic Logistics Activity Charleston, and several other missions. In addition, the facility provides one of the largest sea/rail ports within the Department of Defense. NWS Charleston is located at 2316 Red Bank Road, Goose Creek, Berkeley County, South Carolina. The facility's core operations have been at this location since 1941. The property encompasses approximately 17,000 acres and is owned by the U.S. government. NWS Charleston has a population of 10,196 people and operates base core hours of Monday through Friday. The facility consists of numerous buildings throughout the property.

Charleston County supplies potable water and the sanitary sewer services. The facility is a large quantity generator (LQG) of hazardous waste, a small quantity handler of universal waste (SQHUW) and has a RCRA permit for storage of hazardous waste and to treat hazardous wastes in an open burning/open detonation unit. The facility treats waste munitions and explosives. The permit was issued by SCDHEC on September 6, 2011, became effective on September 22, 2011. The permit expires on September 22, 2021. NWS Charleston staff prepares the waste for packaging and on-site management, prior to shipping it to a treatment, storage or disposal facility (TSDF).

In its latest hazardous waste activity notification, dated January 1, 2021, NSW Charleston reported it generates the following EPA hazardous waste codes: D001, D002, D003, D004-D043, F001- F005, F027, P001-P018, P020-P024, P026-P031, P033, P034, P036-P051, P054, P056-P060, P062-P078, P081, P082, P084, P085, P087, P088, P089, P092-P099, P101-P106, P108-P116, P118-P123, P127, P128, P185, P188-P192, P194, P196-P199, P201-P205, U001-U012, U014-U039, U041-U053, U055-U064, U066-U099, U101, U102, U103, U105-U138, U140-U174, U176-U194, U196, U197, U200-U211, U213, U214-U223, U225-U228, U234-U240, U243, U244, U246-U249, U271, U278, U279, U280, U328, U353, U359, U364, U367, U372,

U373, U387, U389, U394, U395, U404, U409, U410, U411. Hazardous waste permitted for treatment at the Northside Open Burn/Open Detonation area consists of D003, D005, D008, D032 EPA hazardous waste codes.

10) Opening Conference

On June 29, 2022, EPA inspector Parvez Mallick and Mark Anthony Relon, accompanied by SCDHEC inspectors (b) (6) and (b) (6), arrived at Joint Base Naval Weapons Station Charleston at approximately 9:30 a.m. The inspectors were received by (b) (6), Solid and Hazardous Waste Program Manager, Joint Base Naval Weapons Station Charleston. The inspectors provided their credentials to security and received a Temporary Visitors Pass. The inspectors were escorted to a conference room for an entrance briefing. The inspectors conducted a formal introduction, showed their credentials and explained the purpose of the visit.

The inspectors described the anticipated use of a digital camera during the inspection, and discussed the facility's ability, pursuant to 40 C.F.R. §2.203, to assert a business confidentiality claim for information submitted to the EPA. The facility did not assert a business confidentiality claim. The facility does not appear to meet the Small Business Regulatory Enforcement Fairness Act's classification of a "small business," which is generally set by the Small Business Administration using the business' SIC/NAICS code and annual receipts or number of employees. The EPA's information sheet for small businesses, can be found at <https://www.epa.gov/sites/production/files/2017-06/documents/smallbusinessinfo.pdf>.

During the opening conference, NWS Charleston representatives provided an overview of the facility's history and current operations. The inspection participants also discussed health and safety protocols and the required personal protective equipment, prior to (b) (6) (b) (6) escorting the inspectors on a tour of the facility.

11) Findings

90-Day or Less Accumulation Area – Building 360

Excess unused chemical materials are stored in this building until it can be determined for reuse. Chemical materials determined as solid waste are moved to the 90-day or less accumulation area. There were three closed 5-gallon satellite accumulation containers of waste flammable compressed gas (D001 and U117) and two closed 20-gallon satellite containers of waste paint related materials (D001, D005, D007, and D008) in location APS-WAP-5. The containers were marked "Hazardous Waste" and had an indication of the hazards of the contents (Photographs #1-2). The inspectors observed one cubic foot box of used nickel metal-hydride batteries marked "Universal Waste Batteries" and dated 8/24/21 and one cubic foot box of used nickel-chromium batteries marked "Universal Waste Batteries" and dated February 17, 2022.

The 90-day or less accumulation area is divided into cells surrounded by concrete secondary containment and signs that identify the classification of hazardous waste for accumulation. Containers are accumulated on poly-pallets within the containment cell.

Flammable Cell

No hazardous waste was stored in this cell at the time of this inspection.

Toxic Cell

No hazardous waste was stored in this cell at the time of this inspection.

Non-RCRA Regulated/Non-Hazardous Waste Cells

The inspectors observed eight containers ranging from 0.6-gallons to 30-gallons storing “Non-RCRA Regulated Waste” (Photograph #3). The non-hazardous waste containers were labeled with words identifying the content, weight of the container, and profile number. Also, in another cell, the inspectors observed one 65-gallon overpack and three 55-gallon containers marked “Waterborne Polyurethane Waste” stored in the cell. The containers were closed and marked “Non-RCRA Regulated Waste.”

Universal Waste Area

Inspectors observed one closed 20-gallon container of used lithium batteries marked “Universal Waste Batteries” and dated January 3, 2022 and one closed 20-gallon container of used alkaline batteries marked “Non-RCRA Regulated Waste.”

Corrosive Waste Cell

One closed 20-gallon container marked “Disinfectant Liquid – Corrosive Alkyl Ammonium Chloride”. The container was marked non-regulated RCRA waste corrosive because it did not meet the RCRA characteristic of corrosivity (Photograph # 4).

Ignitable Waste Cell

No hazardous waste was stored in this cell at the time of this inspection.

Vehicle Maintenance – (b) (3) (A)

Building 455 is used for maintenance of military land vehicles. This building generates used oils, lead contaminated engine coolant, non-hazardous debris and mop water. The inspectors observed a closed 55-gallon container marked “Used Oil,” a 55-gallon container of lead contaminated engine coolant (D008), a 55-gallon container storing non-hazardous gloves, rags, and other debris, and a 55-gallon container of non-hazardous mop water in location APS-WAP-3 location (Photograph #5). The lead contaminated engine coolant satellite container was closed, marked with the words “Hazardous Waste”, and with an indication of the hazards of the contents. In another location of the building, the inspectors observed two closed 55-gallon containers of non-hazardous paint debris containing gloves and rags (Photographs #6).

The inspectors observed a closed 55-gallon container marked “Used Oil” and a 55-gallon container of non-hazardous debris (safety glasses, goggles, rubber gloves, and face shields) in location LAM2-WAP-33 location.

(b) (3) (A)

The building has one satellite accumulation area for waste generated in this area. The inspectors observed a 35-gallon container accumulating waste gloves, pads, rags contaminated with oil and grease in location APS-WAP-4. The container was closed and labeled with the words non-hazardous waste.

(b) (3) (A)

(b) (6)

Environmental and Safety Manager for the clinic, guided the inspectors to the 90-day hazardous waste storage unit and several satellite accumulation areas visited during the inspection. In the 90-day storage area, the inspectors observed a 5-gallon container of lead acid batteries marked "Universal Waste Batteries" and dated June 29, 2022; a 5-gallon container of nickel-cadmium batteries marked "Universal Waste Batteries" and dated May 23, 2022; a 2-gallon container of alkaline batteries marked "Universal Waste Batteries" and dated April 4, 2022; a box of lamps marked "Universal Waste Lamps" and dated May 23, 2022; and a 5-gallon container of waste amalgam containing mercury and silver marked "Hazardous Waste" but with no start accumulation date (Photographs #7-8). The facility representative stated that a June 28, 2022 accumulation start date will be marked in the container of amalgam containing mercury and silver. All containers were closed and in good condition.

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(5)(i)(C) [40 C.F.R. § 262.17 (a)(5)(i)(C)], which is a condition of the LQG Permit Exemption, a generator must mark or label its containers with the following: the date upon which each period of accumulation begins clearly visible for inspection on each container.

In Room 2383 and Room 1373, the inspectors observed one 0.6-gallon container of silver nitrate contaminated cotton swabs (D001 and D011). Both containers were closed, marked with the words "Hazardous Waste," and with an indication of the hazards of the contents.

In the Pharmacy Lab, the inspectors observed one 0.6-gallon container of warfarin waste (P001). The container was closed, marked with the words "Hazardous Waste," and with an indication of the hazards of the contents (Photograph #9).

It appears that Pharma Logistics of Mundelein, IL provides expired pharmaceutical product returns for reverse distribution, and other pharmaceutical services (Photograph #10). The reverse distribution system is a means to facilitate the return of and credit for pharmaceutical products. Health care providers, such as pharmacies, clinics, hospitals and veterinary clinics, can send unused products to a reverse distributor in order to receive credit from the manufacturer. Because the product is considered to have value, it is not regulated as a waste. The inspectors stated that NWS Charleston must keep records of expired and non-useable pharmaceuticals at the pharmacy and documentation of returns and credits received from the reverse distributor.

Permitted Hazardous Waste Container Storage Building (b) (3) (A)

Building (b) (3) (A) is permitted to store a capacity of 21,200 gallons, gallons in containers of up to 55-gallons. The building is constructed of concrete and provided with proper secondary containment systems that have a capacity of 3,377 gallons. The facility is stocked with emergency equipment, personnel protective equipment, fire extinguishers, eye wash and shower systems and the applicable preparedness and prevention system in accordance with the RCRA permit.

The facility is permitted to store hazardous waste in containers listed in the table below provided that like and similar containers are stored together, and the stacking height of these containers does not exceed two. The facility is permitted to place a wooden pallet between the two 55-gallon drums prior to stacking them. The storage building is divided into cells with signs that

identify the classification of hazardous waste for storage.

Oxidizer Waste Cell

The inspectors observed a 30-gallon and 55-gallon containers storing waste calcium hypochlorite hydrated mixture (D001). The containers were marked with the words “Hazardous Waste”, with an indication of the hazards of the contents, and marked with the date 6/21/22 (Photograph # 11).

Reactive Waste Cell

No hazardous waste was stored in this cell at the time of this inspection.

Caustic Waste Cell

The inspectors observed three corrosive hazardous waste (D002) containers ranging from 2-gallon to 35-gallon stored in the caustic cell. The containers were marked with the words “Hazardous Waste”, with an indication of the hazards of the contents, and marked with the dates June 16, 2022, June 23, 2022, and May 26, 2022 (Photograph #12). The inspectors also observed a 55-gallon container of non-hazardous lithium hydroxide waste.

Non-regulated Waste Cell

The inspectors observed six 5-gallon, two 10-gallon, and three 55-gallon containers storing non-regulated waste. The containers were labeled with words identifying the content, weight of the container, and profile number.

Acid Waste Cell

No hazardous waste was stored in this cell at the time of this inspection.

Organic Waste Cell

The inspectors observed fourteen containers ranging from 0.6-gallons to 55-gallons storing spent solvents, gasoline, fuel filters, compressed gas, and paint (Photograph #13). The containers were marked with the permitted RCRA waste codes, marked with the words “Hazardous Waste,” with an indication of the hazards of the contents, and marked with dates less than one year.

General Waste Cell

On the left side of the cell/room, the inspectors observed seven 55-gallon containers storing hazardous waste and marked with the permitted RCRA waste codes (Photograph #14). The containers were marked with the words “Hazardous Waste,” with an indication of the hazards of the contents and marked with accumulation start dates less than one year.

Located next to the above containers, the inspectors observed two 55-gallon containers and six 35-gallon containers storing hazardous waste and marked with the permitted RCRA waste codes (Photograph #14). The containers were marked with the words “Hazardous Waste,” with an indication of the hazards of the contents and marked with accumulation start dates less than one year.

On the right side of the room, the inspectors observed two 55-gallon containers, five 35-gallon containers, ten 5-gallon containers, and one 2-gallon container storing hazardous waste and marked with the permitted RCRA waste codes (Photograph #15). The containers were marked

with the words “Hazardous Waste,” with an indication of the hazards of the contents and marked with dates less than one year.

All containers of hazardous waste were closed, in good condition, provided with sufficient aisle space, stored on pallets, and totaled less than the permitted capacity of 21,200 gallons. The inspectors reviewed manifests, weekly inspection records, and training records for three years. The records appeared satisfactory.

Nuclear Power Training Unit (NPTU)

The NPTU operates two 90-day or less accumulation sheds. Both sheds are constructed of concrete and metal, with steel grates over six-inch deep concrete containment. The sheds are surrounded by a fence and locked gate.

Inspection of the first shed found a 0.6-gallon container accumulating chromium and lead waste (D007 and D008). The container was closed, marked with the words “Hazardous Waste,” with an indication of the hazards of the contents, and marked with a date June 29, 2022 (Photograph#16).

Inspection of the second shed found a 0.6-gallon container accumulating waste adhesive (D001). The container was closed, marked with the words “Hazardous Waste,” with an indication of the hazards of the contents, and marked with a date June 24, 2022.

The inspectors reviewed weekly inspection records for the 90-day or less area and personnel training records for several employees managing hazardous waste. The records appeared satisfactory. All staff were given hazardous waste related training in 2021 and 2022.

Records Review

The inspectors reviewed manifests, inspection records, waste analysis/waste profile, treatment inspection records - open burning and open detonation permitted area, quarterly reports, land disposal restriction notice, training records, the contingency plan and arrangements with local authorities. All records appeared to be complete and found it to be up to date.

NWS Charleston used the following hazardous waste transporters in 2020 through 2022

American Transportation Solutions, LLC - PAR000521740

LEI, Inc. – LAR000055467

Safety Kleen Systems, Inc. – TXR000081205

Cast Transportation – COR000005389

Freehold Cartage, Inc. – NJD054126164

Clean Harbors Environmental Services, Inc. – MAD039322250

American Transportation Solution – PAR000521740

NWS Charleston used the following TSDFs in 2014 through 2015

LEI, Inc. Hammond – LA0000365668

Safety Kleen Systems, Inc. – SCD077995488

East Tennessee Materials and Energy Corporation – TNR000005397

Diversified Scientific Services Inc. – TND982109142

AES Asset Acquisition Corp., DBA Clean Earth of Calvert City – KYD985073196

12) **Closing Conference**

Upon conclusion of the inspection, an exit interview was conducted in the presence of Joint Base Naval Weapons Station Charleston. The facility was informed of the findings at the time of this inspection.

13) **Signed**

PARVEZ MALLICK Digitally signed by PARVEZ MALLICK
Date: 2022.09.13 10:13:50 -04'00'

Parvez Mallick
Environmental Engineer

Date

14) **Concurrence and Approval**

ARACELI CHAVEZ Digitally signed by ARACELI CHAVEZ
Date: 2022.09.13 13:48:13 -04'00'

Araceli B. Chavez
Chief
RCRA Enforcement Section

Date

Joint Base Naval Weapons Station Charleston

RCRA CEI Photographs

Parvez Mallick, US EPA Region 4

(b) (3) (A) IS (EPA Property Number S75319)



Photograph #1 - Building (b) (3) (A) - three 5-gallon containers of waste flammable compressed gas (D001 and U117).



Photograph #2 - Building (b) (3) (A) - two closed 20-gallon satellite containers of waste paint related materials (D001, D005, D007, and D008) in location APS-WAP-5.



Photograph #3 – Building (b) (3) (A) containers ranging from 0.6-gallons to 30-gallons storing “Non-RCRA Regulated Waste”



Photograph #4 - Building (b) (3) (A) 20-gallon container marked “Disinfectant Liquid – Corrosive Alkyl Ammonium Chloride” in the Corrosive Waste Cell.



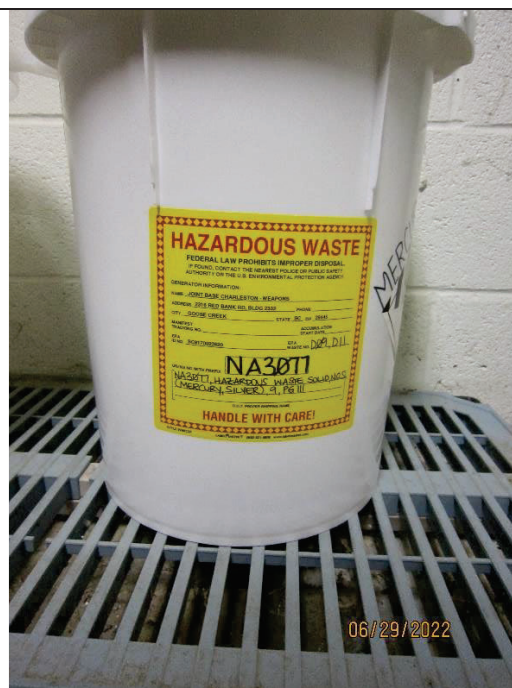
Photograph #5 – Building (b) (3) (A) A 55-gallon container of used oil, a 55-gallon container of lead contaminated engine coolant, a 55-gallon container storing non-hazardous gloves and rags, and a 55-gallon container of non-hazardous mop water in APS-WAP-3 location.



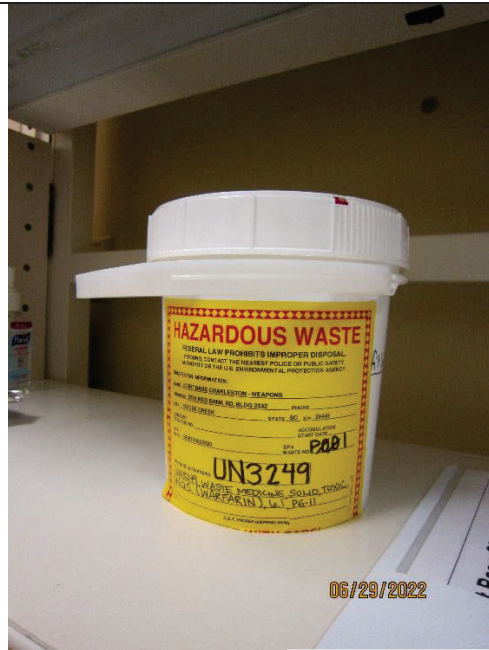
Photograph #6 - Building (b) (3) (A) - two closed 55-gallon containers of non-hazardous paint debris containing gloves and rags.



Photograph #7 - Building (b) (3) (A) – one 5-gallon container of nickel-cadmium batteries and a 2-gallon container of alkaline batteries.



Photograph #8 - Building (b) (3) (A) storage area – one 5-gallon container of waste amalgam containing mercury and silver with no start accumulation date.



Photograph #9 - Building (b) (3) (A) - one 0.6-gallon container of warfarin waste (P001).



Photograph #10 – Building (b) (3) (A) - expired pharmaceutical product to be evaluated for reverse distributor.



Photograph #11 – Permitted Storage Building (b) (3) (A) – Two containers storing waste calcium hypochlorite hydrated mixture (D001).



Photograph #12 – Permitted Storage Building (b) (3) (A) - three corrosive hazardous waste (D002) containers ranging from 2-gallon to 35-gallon stored in the caustic cell.



Photograph #13 – Permitted Storage Building (b) (3) (A) - fourteen hazardous waste containers ranging from 0.6-gallons to 55-gallons storing spent solvents, gasoline, fuel filters, compressed gas, and paint.



Photograph #14 – Permitted Storage Building (b) (3) (A) - Seven 55-gallon containers storing hazardous waste (left side) in the General Waste Cell. Two 55-gallon containers and six 35-gallon containers of hazardous waste (right side).



Photograph #15 - Permitted Storage Building (b) (3) (A) - Two 55-gallon containers, five 35-gallon containers, ten 5-gallon containers, and one 2-gallon container storing hazardous waste.



Photograph #16 - Permitted Storage Building (b) (3) (A) – One 0.6-gallon container accumulating chromium and lead waste (D007 and D008).