

RCRA Inspection Report

1) Inspector and Author of Report

Alan Newman
Environmental Engineer
Phone: 404-562-8589
newman.alan@epa.gov

U.S. Environmental Protection Agency, Region 4
Enforcement and Compliance Assurance Division
Chemical Safety and Land Enforcement Branch
RCRA Enforcement Section
61 Forsyth Street, SW
Atlanta, Georgia 30303

Sarah Rowell
Environmental Engineer
Phone: 404-562-9418
rowell.sarah@epa.gov

2) Facility Information

Dal-Tile Dickson Building Products
1665 Old Columbia Road
Dickson, Tennessee 37055
Dickson County

EPA ID#: TND980559702
NAICS #:327991 – Cut Stone and Stone
Products Manufacturing

3) Responsible Officials

Anthony Patterson
EHS Manager
tony.patterson@daltile.com

4) Inspection Participants

Anthony Patterson, Dal-Tile
Michael White, Dal-Tile
Adam Schumann, Dal-Tile
David Jackson, Dal-Tile
Brandy Earhart, Dal-Tile
Luke Klutinoty, Dal-Tile
Steve Willis, Dal-Tile

Terry Carrier, TDEC
Rachel Freeman, TDEC
Mike Horsley, TDEC
Alan Newman, EPA
Sarah Rowell, EPA

5) Date of Inspection

September 6, 2024, 9:00 a.m. – 4:00 p.m.

6) Applicable Regulations¹

Resource Conservation and Recovery Act (RCRA) Sections 3002 (42 U.S. Code – Annotated U.S.C.A. 6925 and 6927), and 40 Code of Federal Regulation (C.F.R.) Parts 260 - 270, 273, 278, & 279; Tennessee Hazardous Waste Management Act of 1977, Tennessee Code Annotated (Tenn.

¹ As the State's authorized hazardous waste program operates in lieu of the federal RCRA program, the citations of those authorized provisions will be to the authorized State program. However, for ease of reference, the federal citations will follow in brackets.

Code Ann.) § 68-212-101 et seq., and Chapter 0400-12-01 of the Rules and Regulations of the State of Tennessee (Tenn. Comp. R. & Regs.)

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.01(2)(a) [40 C.F.R. § 262.10], a large quantity generator (LQG) is a generator who generates greater than or equal to 1,000 kilograms (2,200 lbs) of non-acute hazardous waste in a calendar month.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h) [40 C.F.R. § 262.17], an LQG may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status, as required by Section 68-212-108 of the THWMA, Tenn. Code Ann. § 68-212-108 [Section 3005 of RCRA, 42 U.S.C. § 6925], provided that the generator complies with the conditions listed in Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h) [40 C.F.R. § 262.17] (hereinafter referred to as the “LQG Permit Exemption”).

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1. [40 C.F.R. § 262.15(a)], a generator may accumulate as much as 55 gallons of non-acute hazardous waste in containers at or near any 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 Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1. [Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(g)2. or 0400-12-01-.03(1)(h)1. [40 C.F.R. § 262.16(b) or § 262.17(a)], except as required in Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1.(vii and viii) [40 C.F.R. § 262.15(a)(7) and (8)], provided that the generator complies with the satellite accumulation area conditions listed in Ten Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1. [40 C.F.R. § 262.15(a)] (hereinafter referred to as the “SAA Permit Exemption”).

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.12(1)(i) [40 C.F.R. § 273.9], a small quantity handler of universal waste (SQHUW) is a universal waste handler who accumulates less than 5,000 kilograms total of universal waste (batteries, pesticides, mercury-containing equipment, lamps, or aerosol cans, calculated collectively) at any time.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.02(1)(d)1.(xxvi) [40 C.F.R. § 261.4(a)(26)], solvent-contaminated wipes that are sent for cleaning and reuse are not solid wastes from the point of generation, provided that the conditions listed in Tenn. Comp. R. & Regs. 0400-12-01-.02(1)(d)1.(xxvi) [40 C.F.R. § 261.4(a)(26)] are met (hereinafter referred to as the “Solvent-Contaminated Reusable Wipe Exclusion”).

7) Purpose of Inspection

The purpose of this inspection was to conduct an unannounced compliance evaluation inspection to determine Dal-Tile’s compliance with the applicable requirements of RCRA and the corresponding Tennessee regulations. This was an EPA lead inspection.

8) Facility Description

Dal-Tile Dickson Building Products (Dal-Tile) notified as a Large Quantity Generator (LQG) of hazardous waste on February 21, 2024. In addition, Dal-Tile is a used oil generator and small quantity handler of universal waste. Dal-Tile is located at 1665 Old Columbia Road, Dickson, TN

37075. Dal-Tile was established 75 years ago to manufacture flooring tiles. There are eight manufacturing plants in the USA, as well as Mexico and Brazil. Mohawk Industries acquired Dal-Tile in 2002. This facility began production of quartz countertops in 2019. Dal-Tile employs about 200 workers for production operations that span seven days a week/24 hours a day. Access to the site is controlled by locked facility doors and a fenced area behind the facility.

There were three active waste streams that have been reported to be generating during 2023 at this location:

Waste Stream 43 (WS#43) – Waste Acetone and Resin (D001/F003) are generated by cleaning of process equipment. This active waste stream is regularly generated at a maximum rate of 5,000 lbs./month.
--

Waste Stream 44 (WS#44) – Ignitable Waste Catalyst (D001/D003) is generated from off-spec or contaminated material. Currently, this active waste stream is intermittently generated at a maximum rate of 70 lbs./month.

Waste Stream 45 (WS#45) - Ignitable hazardous waste liquid (D001 and F003) is generated from spillage and leaks into spill containment, intermittently generated at a maximum monthly volume 1,500 lbs./month.
--

9) Previous Inspection History

Tennessee Department of Environment and Conservation (TDEC) has conducted three RCRA CEIs at the subject facility between 2017 and 2024 and found one violation during those inspections. On January 14, 2021, TDEC conducted the most recent RCRA CEI at the subject facility and found no apparent violations of RCRA's requirements.

10) Opening Conference

On September 6, 2024, EPA inspectors Alan Newman and Sarah Rowell, accompanied by TDEC inspectors Terry Carrier, Rachel Freeman, and Michael Horsley, arrived at Dal-Tile at approximately 9:00 a.m. Adam Schumann, immediately received the inspectors. Adam Schumann and the inspectors were joined by Rony Patterson, David Jackson, and Brandy Earhart for the opening conference. The inspectors introduced themselves, showed their credentials to Adam Schumann and explained the purpose of the visit.

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

Adam Schumann provided an overview of the facility's history and current operations during the opening conference. The inspection participants also discussed health and safety protocols and required personal protective equipment before Facility representative led the inspectors on a tour of the facility operations.

11) Inspection Observations

Dal-Tile's operations are currently being expanded. Line 1 is up and running and Line 2 is being constructed.

The facility receives raw material in bulk super sac and/or pneumatic trucks which is then transferred into a series of hoppers and/or silos for use. Resin is held in the resin holding silos. A recipe for a particular design is loaded into the mixing data base. The operator verifies the recipe and starts the process. The material is transferred by conveyer belts to the 4th floor of the mixing deck where it will wait until the operator starts the process. Based on which recipe is used, the design can range from a single part to a five-part mix. This will determine the number of mixers used in the process. The first phase of mixing is a dry mix, then a small amount of colorant is added, then the wet mix starts. During the wet mix phase, resin is added to the mixer. Each batch runs up to 15 minutes depending on the number of parts and the design. Once all the mixers have completed, each mixer discharges to unload belts which lead to a large ring mixer. This is where everything comes together and is homogenized. Once the ring mixer reaches its max count, it unloads to another conveyer belt which brings the materials to the delumpers. The delumpers are two rounded ceramic rollers which are used to meter the material down onto a spreader loading belt. At this point, the material is metered into the distributor. The distributor in conjunction with the mold shuttle, distribute the material evenly within the mold based on the weight being used. The slab will either pass through the Robot station or can be bypassed in the design from the Robot station is not needed. The slab then rolls down more sets of conveyers until stopping just before the Vibropress to receive an upper mold which is placed over the slab to protect the Vibropress. Once the slab has been pressed to fill in all the gaps in the mold, the slab is stopped just before the oven to be inspected for quality assurance. The slab is placed within a large carousel oven where it will sit for about 30 minutes to cure. The slab is removed and passes through the demolder system when the mold is removed, cleaned, and sent back to be used again. The slab continues to the cooling tower where it will again sit for up to 30 minutes until it reaches ambient temperature. Once the slab is cooled it heads to the double shuttle area when the unloading LB will stack more slabs on top until it reaches bundle height for transport to vertical storage. All these movements are done by automation. From vertical storage, the slabs will then be moved by conveyer to the polish line. On the polish line, the flashing all around the slab is removed by longitudinal grinders and transversal cup wheels and diamond tools. The slabs are then milled down on both the top and bottom removing roughly 2.5mm of material from each side. This is to ensure a flat surface for the fabricators to work with. After this, the slabs pass through a polishing machine and then onto a quality assurance inspector. At last, the slab is transferred to the warehouse until it is sold and shipped out.

Mixing Area

The inspection team noted two 55-gallon containers in the Line 1 Mixing Area of waste acetone and resin (WS#43): one was full and the other one ¼ full and being filled (Photographs 1-8). Dal-Tile was managing this area as an SAA. Neither of these containers were labeled with the words “Hazardous Waste.” Facility representative labeled the containers with the words “Hazardous Waste” during the inspection (Photographs 5-6). The container being filled was affixed with a funnel for pouring waste into the container through a bung hole. The closure device on the funnel was not closed during the inspection; facility personnel closed this clasp during the inspection (Photographs 7-8). There was no date on the container storing the excess waste.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1.(v)(I) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers the following (i) the words “Hazardous Waste”.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1.(iv) [40 C.F.R. § 262.15(a)(4)], which is a condition of the SAA Permit Exemption, a container holding hazardous waste must be closed at all times during accumulation, except when adding, removing, or consolidating waste or when temporary venting of the container is necessary.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1. [40 C.F.R. § 262.15(a)], which is a condition of the SAA Permit Exemption, a generator may accumulate as much as 55 gallons of non-acute hazardous waste in containers at or near any 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 interim status provided that all of the conditions for exemption in this section are met.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1.(vi)(III) [40 C.F.R. § 262.15(a)(6)(iii)], which is a condition of the SAA Permit Exemption, a generator accumulating hazardous waste in excess of the amount listed in paragraph (a) of this section at or near any point of generation must during the three-consecutive-calendar-day period the generator must continue to comply with paragraphs (a)(1) through (5) of this section. The generator must mark or label the container(s) holding the excess accumulation of hazardous waste with the date the excess amount began accumulating.

Daily Tank Area

The inspection team noted spills of materials in the Daily Tank Area where Silan and Cobalt supply chemicals are stored (Photographs 9-12). There were two spill containment pallets located under the dispensing spigots for each the silane and the cobalt materials. Both pallets were storing spilled waste. The floor in this area also showed evidence of spilled material. Facility personnel stated that this material, if wasted, would be determined to be non-hazardous waste. The inspection team recommends that these secondary containment pallets be inspected on a schedule and accumulated spilled liquids be removed and properly managed. The location of the signs in this area should be re-evaluated as they are directly under the dispensing spigots.

Robot Line 1 SAA

Dal-Tile had three 55-gallon blue poly containers staged near the robot line 1 for accumulations of excluded solvent-contaminated wipes (ESCW)(Photograph 13). These containers were empty on the day of the inspection. Dal-Tile was accumulating hazardous waste in a blue metal 55-gallon SAA container that was affixed with a plastic funnel (Photographs 14-19). This container was not labeled with the words "Hazardous Waste". Facility personnel corrected the labeling during the inspection. This funnel was not threaded into the bung hole of the container and the small bung hole did not have a cover; therefore, the inspection team considered this container open.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1.(iv) [40 C.F.R. § 262.15(a)(4)], which is a condition of the SAA Permit Exemption, a container holding hazardous waste must be closed at all times during accumulation, except when adding, removing, or consolidating waste or when temporary venting of the container is necessary.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1.(v)(I) [40 C.F.R. § 262.15(a)(5)(i)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers the following (i) the words "Hazardous Waste".

Distributor Area

The inspection team noted one 55-gallon blue poly container for accumulating ESCW in the distributor area (Photographs 20-21). This container was not labeled as to its contents. Facility personnel stated that this container is changed out weekly.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.02(1)(d)1.(xxvi)(I) [40 CFR 261.4(26)(i)], solvent-contaminated wipes are excluded from the definition of solid waste if, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled "Excluded Solvent-Contaminated Wipes."

Lump Breaker Deck Area

Dal-Tile was accumulating ESCW in two blue poly 55-gallon containers in the Lump Breaker Deck Area (Photographs 22-23). One container was closed and labeled; the second container was closed but not labeled as to its contents.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.02(1)(d)1.(xxvi)(I) [40 CFR 261.4(26)(i)], solvent-contaminated wipes are excluded from the definition of solid waste if, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled "Excluded Solvent-Contaminated Wipes."

Maintenance

The inspection team noted 55-gallon metal containers of used oil in the maintenance area (Photographs 24-26). These containers were in good condition and labeled as "Used Oil."

Southeast Loading Dock CAA

Dal-Tile was accumulating multiple waste streams on the Southeast Loading Dock on the day of the inspection (Photographs 27-31). Used oil was being stored in a 185-gallon poly double walled tank. This tank was labeled with the words "Used Oil." There were two 55-gallon containers for accumulation of used oil rags and pads.

Dal-Tile was storing three 55-gallon metal containers on the Southeast Loading Dock. One SAA container was affixed with an aerosol can puncturing device, labeled as hazardous waste and with a flammable indication of the hazard. This container was open at the time of the inspection. Facility representatives state that the other two were CAA containers accumulating unpunctured aerosol cans. These containers were not labeled with the words "Hazardous Waste", with the indication of the hazard, or with the accumulation start date. These two containers were also open by not being closed with the lid touching all the way around the rim of the container. There were four empty blue ploy 55-gallon containers for accumulation of ESCW being stored in this area. The inspection team did not notice a fire extinguisher, spill kit, or decontamination device in this area.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(i)(IV)I [40 C.F.R. § 262.17(a)(1)(iv)(A)], which is a condition of the LQG Permit Exemption, a container holding hazardous waste must always be closed during accumulation, except when it is necessary to add or remove waste.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(v)(I)I.-III. [40 C.F.R. § 262.17(a)(5)(i)(A-C)], which is a condition of the LQG Permit Exemption, a generator must mark or label its containers with the following: the words "Hazardous Waste," an indication of the hazards of the contents, and the date upon which each period of accumulation begins clearly visible for inspection on each container.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(vi) [40 C.F.R. § 262.17(a)(6)], which references Tenn. Comp. R. & Regs. 0400-12-01-.03(12)(c)3. [40 C.F.R. § 262.252(c)], which is a condition for exemption for the LQG Permit Exemption, all areas deemed applicable by subparagraph (a) of this paragraph must be equipped with the items in parts 1 through 4 of this subparagraph including 3. portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1.(iv) [40 C.F.R. § 262.15(a)(4)], which is a condition of the SAA Permit Exemption, a container holding hazardous waste must be closed at all times during accumulation, except when adding, removing, or consolidating waste or when temporary venting of the container is necessary.

CRT Building – CAA

Dal-Tile utilizes the CRT building for storage of hazardous waste in a CAA. This location serves as overflow if the Conex Box is full. On the day of the inspection, there were thirteen (13) 55-gallon metal containers in storage in this area (Photographs 32-48). This area is also

conditioned space. Three of these containers were not labeled with an accumulation start date. Two containers were not labeled with an indication of the hazard. One container was not labeled with the words “Hazardous Waste”, with an indication of the hazard, or with the accumulation start date. One container was labeled with an accumulation start date of 5/15/2024 which is greater than 90 days. There was inadequate aisle space between containers of hazardous waste in the CRT building. There were no spill kits or eyewash stations located in this area. One container was bulging and not in good condition.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(v)(I)-III. [40 C.F.R.

§ 262.17(a)(5)(i)(A-C)], which is a condition of the LQG Permit Exemption, a generator must mark or label its containers with the following: the words “Hazardous Waste,” an indication of the hazards of the contents, and the date upon which each period of accumulation begins clearly visible for inspection on each container.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1. [40 C.F.R. § 262.17(a)], which is a condition for exemption for the LQG Permit Exemption, a large quantity generator may accumulate hazardous waste on site without a permit or interim status, and without complying with the requirements of Rules 0400-12-01-.05 through 0400-12-01-.07, and 0400-12-01-.09, including the notification requirements, provided that all of the following conditions for exemption are met: 1. Accumulation. A large quantity generator accumulates hazardous waste on site for no more than 90 days, unless in compliance with the accumulation time limit extension or F006 accumulation conditions for exemption in parts 2 through 5 of this subparagraph.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(vi) [40 C.F.R. § 262.17(a)(6)]. Which references Tenn. Comp. R. & Regs. 0400-12-01-.03(12)(f) [40 CFR § 262.255], which is a condition for exemption for the LQG Permit Exemption, a generator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(i)(II) [40 C.F.R. § 262.17(a)(1)(ii)], which is a condition for exemption for the LQG Permit Exemption, if a container holding hazardous waste is not in good condition, or if it begins to leak, the large quantity generator must immediately transfer the hazardous waste from this container to a container that is in good condition, or immediately manage the waste in some other way that complies with the conditions for exemption of this part.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(vi) [40 C.F.R. § 262.17(a)(6)], which references Tenn. Comp. R. & Regs. 0400-12-01-.03(12)(c)3. [40 C.F.R. § 262.252(c)], which is a condition for exemption for the LQG Permit Exemption, all areas deemed applicable by subparagraph (a) of this paragraph must be equipped with the items in parts 1 through 4 of this subparagraph including 3. portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment.

CRT Annex CAA

Adjacent to the CRT area is the CRT annex which is not conditioned space (Photograph 49-50). On the day of the inspection, Dal-Tile was utilizing this space as another CAA in which there was one blue/white metal 55-gallon container that was closed, in good condition, labeled as hazardous waste and with an indication of the hazard. The accumulation start date was 5/13/2024. This container had been stored for longer than 90 days. There were no spill kits or eyewash stations located in this area.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1. [40 C.F.R. § 262.17(a)], which is a condition for exemption for the LQG Permit Exemption, a large quantity generator may accumulate hazardous waste on site without a permit or interim status, and without complying with the requirements of Rules 0400-12-01-.05 through 0400-12-01-.07, and 0400-12-01-.09, including the notification requirements, provided that all of the following conditions for exemption are met: 1. Accumulation. A large quantity generator accumulates hazardous waste on site for no more than 90 days, unless in compliance with the accumulation time limit extension or F006 accumulation conditions for exemption in parts 2 through 5 of this subparagraph.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(vi) [40 C.F.R. § 262.17(a)(6)], which references Tenn. Comp. R. & Regs. 0400-12-01-.03(12)(c)3. [40 C.F.R. § 262.252(c)], which is a condition for exemption for the LQG Permit Exemption, all areas deemed applicable by subparagraph (a) of this paragraph must be equipped with the items in parts 1 through 4 of this subparagraph including 3. portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment.

Conex Box CAA

Dal-Tile utilizes a Conex Box as the primary CAA for hazardous waste at the facility. On the day of the inspection there were twenty-four (24) metal 55-gallon containers in the Conex Box (Photographs 51-68) and one metal 55-gallon container outside of the Conex Box. Inside the Conex Box there were three rows of eight drums which were placed on secondary containment pallets. This filled the Conex Box such that there was no aisle space. The inspection team noted four containers were leaking and two were dented/crushed; these containers were not in good condition and had not been repackaged. Nine containers did not have legible labels or accumulation start dates and six containers with accumulation start dates of greater than 90 days (2/8/2024, 2/24/2024, 4/4/2024, 4/30/2024, 5/1/2024, and 5/6/2024 respectively.) This inspection team did not notice a fire extinguisher or decontamination equipment in this CAA.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(vi) [40 C.F.R. § 262.17(a)(6)]. Which references Tenn. Comp. R. & Regs. 0400-12-01-.03(12)(f) [40 CFR § 262.255], which is a condition for exemption for the LQG Permit Exemption, a generator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(i)(II) [40 C.F.R. § 262.17(a)(1)(ii)], which is a condition for exemption for the LQG Permit Exemption, if a container holding hazardous waste is not in good condition, or if it begins to leak, the large quantity generator must immediately transfer the hazardous waste from this container to a container that is in good condition, or immediately manage the waste in some other way that complies with the conditions for exemption of this part.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(v)(I)-III. [40 C.F.R. § 262.17(a)(5)(i)(A-C)], which is a condition of the LQG Permit Exemption, a generator must mark or label its containers with the following: the words “Hazardous Waste,” an indication of the hazards of the contents, and the date upon which each period of accumulation begins clearly visible for inspection on each container.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1. [40 C.F.R. § 262.17(a)], which is a condition for exemption for the LQG Permit Exemption, a large quantity generator may accumulate hazardous waste on site without a permit or interim status, and without complying with the requirements of Rules 0400-12-01-.05 through 0400-12-01-.07, and 0400-12-01-.09, including the notification requirements, provided that all of the following conditions for exemption are met: Accumulation: a large quantity generator accumulates hazardous waste on site for no more than 90 days, unless in compliance with the accumulation time limit extension or F006 accumulation conditions for exemption in parts 2 through 5 of this subparagraph.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(vi) [40 C.F.R. § 262.17(a)(6)], which references Tenn. Comp. R. & Regs. 0400-12-01-.03(12)(c)3. [40 C.F.R. § 262.252(c)], which is a condition for exemption for the LQG Permit Exemption, all areas deemed applicable by subparagraph (a) of this paragraph must be equipped with the items in parts 1 through 4 of this subparagraph including portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment.

12) Records Review

Notifications for new hazardous waste streams

Dal-Tile failed to make a notification for generating residue from puncturing aerosol cans.

Pursuant to 0400-12-01-.03(2)(d)1.(i)(IV), small and large quantity generators are responsible for maintaining an up to-date notification file by re-notifying the Commissioner of the following changes in the information submitted within 30 days after such changes by revising or submitting the appropriate notification forms, completed according to the instructions for completing the form: Generating a new hazardous waste stream.

Annual Reports:

The inspection team reviewed the 2023 annual report. Dal-Tile was unable to provide annual reports from 2021 and 2022. These records are required to be kept at the facility for three

years. The inspection team noted that the waste stream report for 2023 entry 1f did not match 1h for waste streams #43, #44, or #45

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(5)(a)2 [40 C.F.R. § 262.40], a generator must keep a copy of each Annual Report and Exception Report for a period of at least three years from the due date of the report (March 1).

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(5)(b)1.(iii)(I) [40 C.F.R. § 262.41], a large quantity generator must submit an annual report to the commissioner for the preceding calendar year which must include, for each hazardous waste stream (i.e., each separate waste but not necessarily each batch or shipment of such waste) generated by the generator during the reporting year, except for those wastes identified in part 4 of this subparagraph, the following information: (I) A descriptive name of the waste and the appropriate waste code(s) from Rule 0400-12-01-.02.

Weekly Inspection Records:

The inspectors reviewed Dal-Tile's available records of inspections of the hazardous waste central accumulation area (CAA) since 2022. The inspection log includes a checklist to record observations about leaking containers and for deterioration of containers caused by corrosion or other factors. The inspection log includes a checklist to record observations about evidence of chemical leaks; puddles, smell etc, fire extinguisher present and serviceable, eyewash station functioning, spill kit on hand and stocked, drums swelling rusted or damaged, drums are closed when not adding waste, any incompatible material present, hazardous waste labeled on drums and legible, accumulation date and other info on labels, number of hazardous waste container in area date and time of inspection , and inspector's initials. The records do not include the date and time of the inspection and the name, signature and initials of the employee conducting the inspection. Employees do not routinely record inspection observations and subsequent follow-up actions on the inspection log. No inspection records were provided for any week since April 2024. The records available for review appear to only identify the Conex Box as the sole CAA at the site. The other three CAAs do not appear to have any inspection records.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(i)(V)I. and II. [40 C.F.R. § 262.17(a)(1)(v)], which is a condition of the LQG Permit Exemption, a generator is required to, at least weekly, inspect central accumulation areas looking for leaking containers and for deterioration of containers caused by corrosion or other factors and the large quantity generator must record inspections required by subitem I of this item in an inspection log or summary. The large quantity generator must keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

Hazardous Waste Manifests:

The inspection team noted that there were no return signed manifests available for manifest numbers 025593953JJK dated July 14, 2023, or 025593953JJK dated November 3, 2023.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(5)(a)1. [40 C.F.R. § 262.40(a)], a generator must keep a copy of each manifest signed in accordance with part (3)(d)1 of this rule for three years or until he receives a signed copy from the designated facility which received the waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter.

Contingency Plan and Quick Reference Guide (QRG):

There was no contingency plan or QRG available for review during the inspection. No copies of the contingency plan had been shared with local emergency response teams.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(vi) [40 C.F.R. § 262.17(a)(6)], which incorporates Tenn. Comp. R. & Regs. 0400-12-01-.03(12)(h)1. [40 C.F.R. § 262.260], which is a condition of the LQG Permit Exemption, a large quantity generator must have a contingency plan for the facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(vi) [40 C.F.R. § 262.17(a)(6)], which incorporates Tenn. Comp. R. & Regs. 0400-12-01-.03(12)(j) [40 C.F.R. § 262.262], which is a condition of the LQG Permit Exemption, a copy of the contingency plan and all revisions to the plan must be maintained at the large quantity generator and—

1. The large quantity generator must submit a copy of the contingency plan and all revisions to all local emergency responders (*i.e.*, police departments, fire departments, hospitals and State and local emergency response teams that may be called upon to provide emergency services). This document may also be submitted to the Local Emergency Planning Committee, as appropriate.
2. A large quantity generator that first becomes subject to these provisions after May 30, 2017 or a large quantity generator that is otherwise amending its contingency plan must at that time submit a quick reference guide of the contingency plan to the local emergency responders identified at paragraph (a) of this section or, as appropriate, the Local Emergency Planning Committee. The quick reference guide must include the following elements:
 - i. The types/names of hazardous wastes in layman's terms and the associated hazard associated with each hazardous waste present at any one time (*e.g.*, toxic paint wastes, spent ignitable solvent, corrosive acid);
 - ii. The estimated maximum amount of each hazardous waste that may be present at any one time;
 - iii. The identification of any hazardous wastes where exposure would require unique or special treatment by medical or hospital staff;

- iv. A map of the facility showing where hazardous wastes are generated, accumulated and treated and routes for accessing these wastes;
- v. A street map of the facility in relation to surrounding businesses, schools and residential areas to understand how best to get to the facility and also evacuate citizens and workers;
- vi. The locations of water supply (*e.g.*, fire hydrant and its flow rate);
- vii. The identification of on-site notification systems (*e.g.*, a fire alarm that rings off site, smoke alarms); and
- viii. The name of the emergency coordinator(s) and 7/24-hour emergency telephone number(s) or, in the case of a facility where an emergency coordinator is continuously on duty, the emergency telephone number for the emergency coordinator.

3. Generators must update, if necessary, their quick reference guides, whenever the contingency plan is amended and submit these documents to the local emergency responders identified at paragraph (a) of this section or, as appropriate, the Local Emergency Planning Committee.

Training Records:

The inspectors reviewed facility job descriptions and employee names that were provided for Production Manager, Water Treatment Specialized Technician, Process Engineer, Director of Manufacturing, Production Senior Manager, Quality Control Technician, Quality Supervisor, R&D Specialist, Quality Manager, and Mold Line Specialized Technician. Each description did not include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to that position. There was no training documentation for former EHS manager Brian Cline or Gary Bishop who both were signing hazardous waste manifests. The last documented training for Michael White was 7/11/2023.

Dal-Tile did not provide a written description of the type and amount of both introductory and continuing training to be given to each person filling the positions listed above. Training was taken on May 15, 2024. No prior training records were available for review from 2022 or 2023.

Pursuant to [Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(vii)(I)-(V) [40 C.F.R. § 262.17(a)(7)(i)-(v)], which is a condition of the LQG Permit Exemption, (I) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the regulations; (II) Facility personnel must complete personnel training within six months of being hired or of being assigned to a new position at the Facility; (III) Facility personnel must take part in an annual review of the initial training required by this section; and/or (IV) the generator must maintain training records that include, among others: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position; a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position; and records documenting that the training required has been given

to and completed by Facility personnel; (V) Training records on current personnel must be kept until closure of the facility. Training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personal training records may accompany personnel transferred within the same company.

13) Closing Conference

The closeout meeting between the inspection team and Dal-Tile included Adam Schumann, Brad Bell, Brandy Earhart, and Anthony Patterson. The inspection team noted the observations regarding container management and the record review noted above. Facility personnel stated that the missing records would soon be sent.

14) Summary of Observations

During the inspection, observations were made concerning the following RCRA requirements:

- a) Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.02(1)(d)1.(xxvi)(I) [40 CFR 261.4(26)(i)], solvent-contaminated wipes are excluded from the definition of solid waste if, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled “Excluded Solvent-Contaminated Wipes.”**

Containers in the following areas were not labeled as Excluded Solvent-Contaminated Wipes: the Distributor Area and the Lump Breaker Deck Area.

- b) Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1. [40 C.F.R. § 262.15(a)], which is a condition of the SAA Permit Exemption, a generator may accumulate as much as 55 gallons of non-acute hazardous waste in containers at or near any 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 interim status provided that all of the conditions for exemption in this section are met.**

Dal-Tile was storing greater than 55 gallons of waste at a SAA without meeting the requirements in the Mixing area.

- c) Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1.(iv) [40 C.F.R. § 262.15(a)(4)], which is a condition of the SAA Permit Exemption, a container holding hazardous waste must be closed at all times during accumulation, except when adding, removing, or consolidating waste or when temporary venting of the container is necessary.**

Dal-Tile was storing SAA containers with open lids in the Mixing area, the Robot Line 1 SAA, and the Southeast Loading Dock.

- d) Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1.(v)(I) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers the following (i) the words “Hazardous Waste”.**

Dal-Tile failed to label containers in SAAs with the words “Hazardous Waste” in the Mixing area and the Robot Line 1 SAA.

- e) Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1.(vi)(III) [40 C.F.R. § 262.15(a)(6)(iii)], which is a condition of the SAA Permit Exemption, a generator accumulating hazardous waste in excess of the amount listed in paragraph (a) of this section at or near any point of generation must during the three-consecutive-calendar-day period the generator must continue to comply with paragraphs (a)(1) through (5) of this section. The generator must mark or label the container(s) holding the excess accumulation of hazardous waste with the date the excess amount began accumulating.

Dal-Tile failed to label excess waste stored in the Mixing area SAA with an accumulation start date.

- f) Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1. [40 C.F.R. § 262.17(a)], which is a condition for exemption for the LQG Permit Exemption, a large quantity generator may accumulate hazardous waste on site without a permit or interim status, and without complying with the requirements of Rules 0400-12-01-.05 through 0400-12-01-.07, and 0400-12-01-.09, including the notification requirements, provided that all of the following conditions for exemption are met: 1. Accumulation. A large quantity generator accumulates hazardous waste on site for no more than 90 days, unless in compliance with the accumulation time limit extension or F006 accumulation conditions for exemption in parts 2 through 5 of this subparagraph.

Dal-Tile stored waste for greater than 90 days at the following CAAs: CRT CAA, CRT Annex CAA, and Conex Box CAA.

- g) Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(i)(II) [40 C.F.R. § 262.17(a)(1)(ii)], which is a condition for exemption for the LQG Permit Exemption, if a container holding hazardous waste is not in good condition, or if it begins to leak, the large quantity generator must immediately transfer the hazardous waste from this container to a container that is in good condition, or immediately manage the waste in some other way that complies with the conditions for exemption of this part.

Dal-Tile failed to transfer waste that were crushed or bulging to containers that were in good condition in the CRT CAA and the Conex Box CAA.

- h) Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(i)(IV)I [40 C.F.R. § 262.17(a)(1)(iv)(A)], which is a condition of the LQG Permit Exemption, a container holding hazardous waste must always be closed during accumulation, except when it is necessary to add or remove waste.

Dal-Tile failed to close containers in the Southeast Loading Dock CAA.

- i) Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(v)(I)I.-III. [40 C.F.R. § 262.17(a)(5)(i)(A-C)], which is a condition of the LQG Permit Exemption, a generator must mark or label its containers with the following: the words "Hazardous Waste," an indication of the hazards of the contents, and the date upon which each period of accumulation begins clearly visible for inspection on each container.

Dal-Tile failed to label CAA containers at the Southeast Loading Dock CAA, the CRT CAA, and the Conex Box CAA.

- j) Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(vi) [40 C.F.R. § 262.17(a)(6)], which references Tenn. Comp. R. & Regs. 0400-12-01-.03(12)(c)3. [40 C.F.R. § 262.252(c)], which is a condition for exemption for the LQG Permit Exemption, all areas deemed applicable by subparagraph (a) of this paragraph must be equipped with the items in parts 1 through 4 of this subparagraph including 3. portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment.

Dal-Tile failed to ensure all emergency and decontamination equipment were present at the following CAAs: Southeast Loading Dock CAA, CRT CAA, CRT Annex CAA, and Conex Box CAA.

- k) Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(vi) [40 C.F.R. § 262.17(a)(6)]. Which references Tenn. Comp. R. & Regs. 0400-12-01-.03(12)(f) [40 CFR § 262.255], which is a condition for exemption for the LQG Permit Exemption, a generator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

Dal-Tile failed to provide adequate aisle space at CRT CAA and Conex Box CAA.

- l) Pursuant to 0400-12-01-.03(2)(d)1.(i)(IV), small and large quantity generators are responsible for maintaining an up to-date notification file by re-notifying the Commissioner of the following changes in the information submitted within 30 days after such changes by revising or submitting the appropriate notification forms, completed according to the instructions for completing the form: Generating a new hazardous waste stream.

Dal-Tile failed to make a notification for generating residue from puncturing aerosol cans.

- m) Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(i)(V)I. and II. [40 C.F.R. § 262.17(a)(1)(v)], which is a condition of the LQG Permit Exemption, a generator is required to, at least weekly, inspect central accumulation areas looking for leaking containers and for deterioration of containers caused by corrosion or other factors and the large quantity generator must record inspections required by subitem I of this item in an inspection log or summary. The large quantity generator must keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

Dal-Tile failed to conduct weekly inspections at CAA areas and record inspections.

- n) Pursuant to [Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(vii)(I)-(V) [40 C.F.R. § 262.17(a)(7)(i)-(v)], which is a condition of the LQG Permit Exemption, (I) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the regulations; (II) Facility personnel must complete personnel training within six months of being hired or of being assigned to a new position at the Facility; (III) Facility personnel must take part in an annual review of the initial training required by this section; and/or (IV) the generator must maintain training records that include, among others: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position; a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position; and records documenting that the training required has been given to and completed by Facility personnel; (V) Training records on current personnel must be kept until closure of the facility. Training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personal training records may accompany personnel transferred within the same company.

Dal-Tile's training program and documentation did not appear to meet the requirements.

- o) Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(vi) [40 C.F.R. § 262.17(a)(6)], which incorporates Tenn. Comp. R. & Regs. 0400-12-01-.03(12)(h)1. [40 C.F.R. § 262.260], a large quantity generator must have a contingency plan for the facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

There was no contingency plan or QRG available for review during the inspection.

- p) Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(vi) [40 C.F.R. § 262.17(a)(6)], which incorporates Tenn. Comp. R. & Regs. 0400-12-01-.03(12)(j) [40 C.F.R. § 262.262], which is a condition of the LQG Permit Exemption, a copy of the contingency plan and all revisions to the plan must be maintained at the large quantity generator and—
1. The large quantity generator must submit a copy of the contingency plan and all revisions to all local emergency responders (*i.e.*, police departments, fire departments, hospitals and State and local emergency response teams that may be called upon to provide emergency services). This document may also be submitted to the Local Emergency Planning Committee, as appropriate.
 2. A large quantity generator that first becomes subject to these provisions after May 30, 2017 or a large quantity generator that is otherwise amending its contingency

plan must at that time submit a quick reference guide of the contingency plan to the local emergency responders identified at paragraph (a) of this section or, as appropriate, the Local Emergency Planning Committee. The quick reference guide must include the following elements:

- i. The types/names of hazardous wastes in layman's terms and the associated hazard associated with each hazardous waste present at any one time (*e.g.*, toxic paint wastes, spent ignitable solvent, corrosive acid);
 - ii. The estimated maximum amount of each hazardous waste that may be present at any one time;
 - iii. The identification of any hazardous wastes where exposure would require unique or special treatment by medical or hospital staff;
 - iv. A map of the facility showing where hazardous wastes are generated, accumulated and treated and routes for accessing these wastes;
 - v. A street map of the facility in relation to surrounding businesses, schools and residential areas to understand how best to get to the facility and also evacuate citizens and workers;
 - vi. The locations of water supply (*e.g.*, fire hydrant and its flow rate);
 - vii. The identification of on-site notification systems (*e.g.*, a fire alarm that rings off site, smoke alarms); and
 - viii. The name of the emergency coordinator(s) and 7/24-hour emergency telephone number(s) or, in the case of a facility where an emergency coordinator is continuously on duty, the emergency telephone number for the emergency coordinator.
3. Generators must update, if necessary, their quick reference guides, whenever the contingency plan is amended and submit these documents to the local emergency responders identified at paragraph (a) of this section or, as appropriate, the Local Emergency Planning Committee.

Dal-Tile had not distributed copies of their contingency plan or developed a QRG.

- q) Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(5)(a)2 [40 C.F.R. § 262.40], a generator must keep a copy of each Annual Report and Exception Report for a period of at least three years from the due date of the report (March 1).

Dal-Tile was unable to provide copies of the 2022 or 2021 annual reports.

- r) Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(5)(b)1.(iii)(I) [40 C.F.R. § 262.41], a large quantity generator must submit an annual report to the commissioner for the

preceding calendar year which must include, for each hazardous waste stream (i.e., each separate waste but not necessarily each batch or shipment of such waste) generated by the generator during the reporting year, except for those wastes identified in part 4 of this subparagraph, the following information: (I) A descriptive name of the waste and the appropriate waste code(s) from Rule 0400-12-01-.02.

Dal-Tile failed to complete the 2023 annual report correctly.

- s) Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(5)(a)1. [40 C.F.R. § 262.40(a)], a generator must keep a copy of each manifest signed in accordance with part (3)(d)1 of this rule for three years or until he receives a signed copy from the designated facility which received the waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter.

The inspection team noted that there were no return signed manifests available for manifest numbers 025593953JJK dated July 14, 2023, or 025593953JJK dated November 3, 2023.

15) **List of Attachments**

Attachment 1 – Photo Log

16) **Signed**

SARAH ROWELL Digitally signed by SARAH ROWELL
Date: 2024.11.07 12:09:00 -05'00'

Sarah Rowell
Environmental Engineer

ALAN NEWMAN Digitally signed by ALAN NEWMAN
Date: 2024.11.07 12:17:04 -05'00'

Alan Newman
Environmental Engineer

17) **Concurrence**

RAJAGOPAL AIYAR Digitally signed by RAJAGOPAL
AIYAR
Date: 2024.11.07 15:16:21 -05'00'

for Brooke York, Acting Chief
RCRA Enforcement Section

Appendix 1

Photograph Log:

Photos taken September 6, 2024

Photos taken by Sarah Rowell

Photos taken with: Lumix Digital

EPA Property Tag: S75870





Photograph 5: Line 1 Mixing Area SAA.



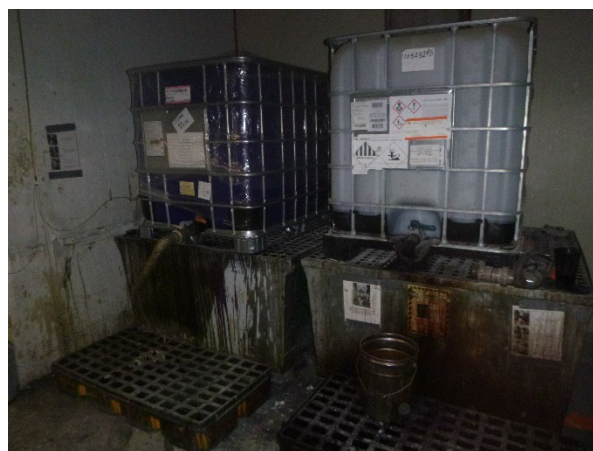
Photograph 7: Line 1 Mixing Area SAA.



Photograph 8: Line 1 Mixing Area SAA.



Photograph 6: Line 1 Mixing Area SAA



Photograph 9: Daily Tank Area.



Photograph 10: Daily Tank Area.



Photograph 11: Daily Tank Area.



Photograph 12: Daily Tank Area.



Photograph 13: Robot Line 1.



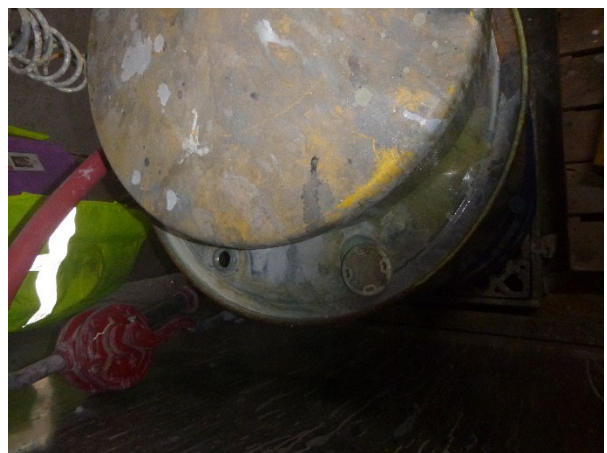
Photograph 14: Robot Line 1 SAA.



Photograph 16: Robot Line 1 SAA.



Photograph 15: Robot Line 1 SAA.



Photograph 17: Robot Line 1 SAA.



Photograph 18: Robot Line 1 SAA.



Photograph 20: Distributer Area ESCW container.



Photograph 19: Robot Line 1 SAA.



Photograph 21: Distributer Area ESCW container.



Photograph 22: Lump Breaker Deck Area.



Photograph 24: Maintenance Area.



Photograph 25: Maintenance Area.



Photograph 23: Lump Breaker Deck Area.



Photograph 26: Maintenance Area.



Photograph 28: Southeast Loading Dock.



Photograph 27: Southeast Loading Dock.



Photograph 29: Southeast Loading Dock.



Photograph 30: Southeast Loading Dock.



Photograph 33: CRT CAA.



Photograph 31: Southeast Loading Dock.



Photograph 34: CRT CAA.



Photograph 32: CRT CAA.



Photograph 35: CRT CAA.



Photograph 37: CRT CAA.



Photograph 36: CRT CAA.



Photograph 38: CRT CAA.



Photograph 39: CRT CAA.



Photograph 41: CRT CAA.



Photograph 40: CRT CAA.



Photograph 42: CRT CAA.



Photograph 43: CRT CAA.



Photograph 45: CRT CAA.



Photograph 44: CRT CAA.



Photograph 46: CRT CAA.



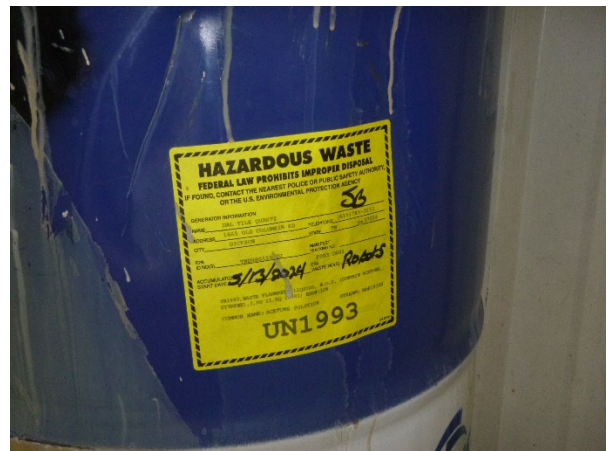
Photograph 47: CRT CAA.



Photograph 49: CRT Annex CAA.



Photograph 48: CRT CAA.



Photograph 50: CRT Annex CAA.



Photograph 51: Conex Box CAA.



Photograph 52: Conex Box CAA.



Photograph 53: Conex Box CAA.



Photograph 54: Conex Box CAA.



Photograph 55: Conex Box CAA.



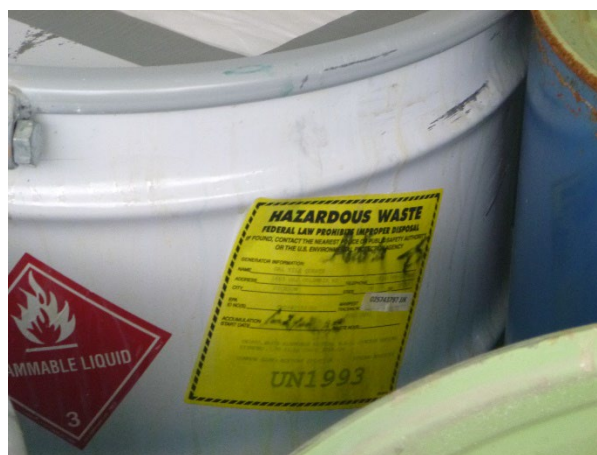
Photograph 56: Conex Box CAA.



Photograph 57: Conex Box CAA.



Photograph 59: Conex Box CAA.



Photograph 60: Conex Box CAA.



Photograph 58: Conex Box CAA.



Photograph 61: Conex Box CAA.



Photograph 63: Conex Box CAA.



Photograph 62: Conex Box CAA.



Photograph 64: Conex Box CAA.



Photograph 65: Conex Box CAA.



Photograph 66: Conex Box CAA.



Photograph 67: Primer Mix Area SAA.



Photograph 68: Primer Mix Area SAA.