

State of Utah

GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

Department of Environmental Quality

L. Scott Baird Executive Director

DIVISION OF WASTE MANAGEMENT AND RADIATION CONTROL Ty L. Howard Director

April 8, 2020

William Simmons, General Manager Clean Harbors Aragonite, LLC P.O. Box 1339 Grantsville, UT 84029

CERTIFIED MAIL RETURN RECEIPT REQUESTED 7003 2260 0003 2353 4794

RE: Notice of Violation No. 2001004 UTD 981 552 177

Dear Mr. Simmons.:

Enclosed is **NOTICE OF VIOLATION (NOV)** Number **2001004**, based on findings documented by Division of Waste Management and Radiation Control inspectors during a compliance inspection on September 9-26, 2019.

You are hereby requested to submit to this office on or before April 28, 2020, written verification that the violations documented in the NOV have been corrected. Please include a description of the corrective actions implemented to ensure that these violations do not recur. Your response to this request will not constitute an administrative contest to the attached NOV.

You have 30 days from the date of the attached NOV to contest it in the manner and within the time period prescribed by R305-7-303 of the Utah Administrative Code.

If you have any questions, please call Rick Page at (801) 536-0230.

Sincerely,

Ty L. Howard, Director Division of Waste Management and Radiation Control

(Over)

DSHW-2020-000182

195 North 1950 West • Salt Lake City, UT Mailing Address: P.O. Box 144880 • Salt Lake City, UT 84114-4880 Telephone (801) 536-0200 • Fax (801) 536-0222 • T.D.D. (801) 536-4284 *www.deq.utah.gov* Printed on 100% recycled paper

TLH/RAP/ar

Enclosure: Notice of Violation No. 2001004

c: Jeff Coombs, EHS, Health Officer, Tooele County Health Department Bryan Slade, Environmental Health Director, Tooele County Health Department Annette Maxwell, U.S. EPA, Region VIII, ENF-R In the Matter of:

Clean Harbors Aragonite, LLC UTD 981 552 177 NOTICE OF VIOLATION
No. 2001004

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This **NOTICE OF VIOLATION (NOV)** is issued by the Director of the Division of Waste Management and Radiation Control pursuant to the Utah Solid and Hazardous Waste Act (the Act), Utah Code §19-6-101, *et seq.* The Director has authority to issue such NOTICES in accordance with Utah Code §19-6-112.

FINDINGS

- 1. Clean Harbors Aragonite, LLC (CHA) is a Delaware Limited Liability Company licensed to do business in the State of Utah and is a subsidiary of Clean Harbors Environmental Services, Inc., a Massachusetts corporation licensed to do business in the State of Utah.
- 2. CHA is a "person" as defined in Utah Code §19-1-103(4) and is subject to all applicable provisions of the Act, the Utah Administrative Code (UAC) (the Rules) and the Permit issued to CHA as owner and operator of the Aragonite facility.
- 3. The Aragonite facility is a commercial hazardous waste incinerator, transfer station, and storage facility located in Tooele County, Utah. CHA operates the Aragonite facility under the provisions of the State-issued Hazardous Waste Part B Permit issued on March 30, 1990, as modified (the Permit) on file with the Utah Department of Environmental Quality, Division of Waste Management and Radiation Control (the Division). The Permit was most recently renewed and reissued on September 28, 2012.
- 4. CHA generates, treats, and stores listed and characteristic hazardous waste as defined by R315-261 UAC.
- 5. Authorized representatives of the Director conducted a hazardous waste inspection at the Aragonite facility from September 9 through September 26, 2019 (the FY2019 inspection) and documented the following findings. In addition, the CHA self-reported several non-compliance issues during the 2019 fiscal year (October 1, 2018, through September 30, 2019) (FY2019).
- 6. During the FY2019 inspection, the inspector(s) observed and documented that CHA failed to follow procedures specified in SOPs #003, #209, #323, #402, and #407 in the Waste Analysis Plan (WAP) in Attachment 1 of the Permit. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 1.

- 7. During the FY2019 inspection, the inspector(s) documented that CHA failed to accurately record waste heat content to ensure safe operation. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 2.
- 8. During the FY2019 inspection, the inspector(s) documented that CHA failed to timely notify the Director in writing within seven days of each emergency vent opening. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 3.
- 9. During the FY2019 inspection, the inspector(s) documented that CHA failed to notify the Director in writing within seven days of the baghouse bypassing. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 4.
- 10. During the FY2019 inspection, the inspector(s) documented that CHA failed to comply with the waste analysis procedures specified in the WAP in Attachment 1 of the Permit. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 5.
- 11. During the FY2019 inspection, the inspector(s) documented that CHA failed to comply with inspection procedures specified in Attachment 3 of the Permit. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 6.
- 12. During the FY2019 inspection, the inspector(s) documented that CHA failed to comply with personnel training procedures specified in Attachment 4 of the Permit. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 7.
- 13. During the FY2019 inspection, the inspector(s) documented that CHA failed to ensure the availability of decontamination equipment in time of emergency. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 8.
- 14. During the FY2019 inspection, the inspector(s) documented that CHA failed to comply with waste manifest requirements. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 9.
- 15. During the FY2019 inspection, the inspector(s) documented that CHA failed to comply with polychlorinated biphenyl (PCB) management procedures in Attachment 17 of the Permit. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 10.
- 16. During the FY2019 inspection, the inspector(s) documented that CHA failed to comply with storage and treatment waste management requirements. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 11.
- 17. During the FY2019 inspection, the inspector(s) documented that CHA failed to follow the storage time limit and notification procedures for rejected waste. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 12.
- 18. During the FY2019 inspection, the inspector(s) documented that CHA failed to properly label accepted containers as specified in Attachment 8 of the Permit (Waste Storage, Processing, and Tracking). The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 13.

- 19. During the FY2019 inspection, the inspector(s) documented that CHA failed to properly manage ignitable waste. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 14.
- 20. During the FY2019 inspection, the inspector(s) documented that CHA failed to properly manage incompatible waste. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 15.
- 21. On August 9, 2019, CHA notified the Director that on August 5, 2019, CHA discovered that it failed to unload containers from a transport vehicle within ten days of receipt. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 16.
- 22. During the FY2019 inspection, the inspector(s) documented that CHA stored two containers of medical waste in the aisle space in the refrigerated trailer. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 17.
- 23. During the FY2019 inspection, the inspector(s) documented that CHA failed to accurately track waste at all times in storage or during treatment at the facility. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 18.
- 24. During the FY2019 inspection, the inspector(s) documented that CHA failed to properly store two containers of medical waste in the refrigerated trailer. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 19.
- 25. During the FY2019 inspection, the inspector(s) documented that CHA failed to maintain the level of waste in the large bulk solids tank T404-A at or below the dividers between the tanks. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 20.
- 26. During the FY2019 inspection, the inspector(s) documented from reviewing the inspection report that CHA failed inspect and certify T-406 and T-403 (sludge tanks) and T-404A (bulk solids tank), to ensure that each tank can safely manage hazardous waste. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 21.
- 27. During the FY2019 inspection, the inspector(s) documented that CHA failed to document the cause of oxygen concentration excursion in the hydrocarbon vent system above 5% and the corrective action taken to reduce the oxygen. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 22.
- 28. During the FY2019 inspection, the inspector(s) documented that CHA failed to comply with the Fume Management Plan, Attachment 14. The factual details to support these findings are provided in Exhibit 1 to this NOV. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 23.
- 29. On September 24, 2019, (in a letter dated September 23, 2019 (DSHW-2019- 011803)) CHA notified the Director that on September 18, 2019, the CHA discovered that the east carbon bed exceeded the backup carbon adsorption system carbon bed life. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 24

- 30. On November 9, 2018, CHA notified the Director that on November 1, 2018, CHA discovered that it had inadvertently incinerated a drum containing 1.78 pounds of mercury, which exceeded the maximum allowable feed rate for mercury. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 25.
- 31. During the FY2019 inspection, the inspector(s) documented that CHA failed to conduct sufficient waste analysis of the incinerator waste feed. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 26.
- 32. During the FY2019 inspection, the inspector(s) documented that CHA failed to properly label a container in its satellite accumulation area in the metals instrument. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 27.
- 33. CHA failed to comply with 90-day generator storage requirements for two incidents reported by CHA on June 18, 2019 and August 10, 2019, and two incidents documented by the inspector(s) during the FY2019 inspection. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 28.
- 34. On November 9, 2018 and September 3, 2019, CHA notified the Director that it incinerated prohibited wastes, waste code D009, toxicity characteristic for mercury. The factual details to support this finding are provided in Exhibit 1 to this NOV, paragraph 29.

DETERMINATION OF VIOLATIONS

In accordance with Utah Code §19-6-101, *et seq.*, based on the foregoing FINDINGS, supported in part by *Notice of Violation No. 2001004, Exhibit 1, Factual Details Supporting Findings*, as attached, Clean Harbors Aragonite, LLC (CHA) has violated provisions of the Rules, the Act, and the Permit applicable to its facility. Specifically, CHA has violated the following:

- 1. Condition 1.A.6 of the Permit and Section 1.0 of the Waste Analysis Plan (WAP) by failing to comply with multiple provisions of the Standard Operating Procedures (SOPs) incorporated by reference as part of the WAP (see Finding 6 and Exhibit 1, paragraph 1).
- 2. Condition 1.P of the Permit by inaccurately reporting the heat content of waste samples as 20,000 Btu per pound when the result is greater than 20,000 Btu per pound (see Finding 7 and Exhibit 1, paragraph 2).
- 3. Condition 1.Q.9 of the Permit by failing to notify the Director in writing within seven days of the emergency vent opening during operation; and by failing to notify the Director in writing, regardless of timing, of all emergency vent openings during operation (see Finding 8 and Exhibit 1, paragraph 3).
- 4. Condition 1.Q.11 of the Permit by failing to notify the Director in writing within seven days of the baghouse bypassing during operation; and by failing to notify the Director in writing, regardless of timing, of all baghouse bypasses during operation (see Finding 9 and Exhibit 1, paragraph 4).

- 5. Condition 2.D of the Permit and Section 1.0 of the WAP by failing to comply with multiple provisions of the Quality Assurance Plan included as Appendix 1 of the WAP (see Finding 10 and Exhibit 1, paragraph 5.a).
- 6. Condition 2.D of the Permit and Section 3.0 of the WAP by failing to categorize each waste in 15 documented instances according to the waste categories in Table 2 of the WAP; and by failing to note the category code for each waste stream on the *Waste Receiving Report* (see Finding 10 and Exhibit 1, paragraph 5.b).
- 7. Condition 2.D of the Permit and Section 3.1.1 of the WAP, Attachment 1 of the Permit, by using in three documented instances a profile for a waste stream from one source of generation for a different waste stream from a different source of generation (see Finding 10 and Exhibit 1, paragraph 5.c).
- 8. Condition 2.D of the Permit and Section 3.3 of the WAP by failing to conduct necessary waste analysis in 10 separate instances as required (see Finding 10 and Exhibit 1, paragraph 5.d).
- 9. Condition 2.F of the Permit and Section 4.0 of Attachment 3 of the Permit by failing to submit to the Director, before the expiration of the 72-hour period, a proposed time schedule for correcting a problem discovered by an inspection that cannot be corrected within 72 hours; and by failing to conduct a daily inspection of the container buildings (see Finding 11 and Exhibit 1, paragraph 6).
- 10. Condition 2.G of the Permit and Sections 2.0 and 2.5 and Table 2 of Attachment 4 of the Permit by failing to conduct the required training within six months of the date of hire; by failing to maintain documentation of the training in each employee's training file; and by failing to conduct Course HS4020 (Forklift Training) for a Chemical Handler (see Finding 12 and Exhibit 1, paragraph 7).
- 11. Condition 2.I of the Permit and Section 2.4 of Attachment 5 of the Permit by blocking the access to the emergency shower/eye wash in front of Building 68 (see Finding 13 and Exhibit 1, paragraph 8).
- 12. Condition 2.K of the Permit, R315-264-71(a)(2)(ii), R315-264-72(c), R315-264-71(c), R315-262-20(a)(1), and R315-262-23 UAC by failing to note any discrepancies on each copy of the manifest; by failing to document discussions and resolutions of significant discrepancies with the waste generator or transporter; and by failing to prepare and sign a manifest, obtain the signature of the initial transporter, retain one copy, and send the other copies with the transporter when offering for transport a rejected hazardous waste (see Finding 14 and Exhibit 1, paragraph 9).
- 13. Condition 2.R of the Permit, Section II of Attachment 17 of the Permit, 40 CFR § 761.1(b)(i) and 40 CFR § 761.274(a) by failing to report all PCB samples on an "as received" or "wet weight" basis (see Finding 15 and Exhibit 1, paragraph 10).
- 14. Condition 3.A.1 of the Permit, Section 2.7 of Attachment 14 of the Permit, Section 5.2 of Attachment 8 of the Permit, Condition 2.L of the Permit, R315-264-73(a)(1) UAC, and Section 5.8 of Attachment 8 of the Permit by failing to record in the waste tracking system the dates the spent carbon from the backup carbon adsorption system was removed, placed into permitted storage, and treated; by failing to track the spent carbon in the plant-wide database with a unique tracking number; by failing to record the quantity of the spent carbon; and by failing to use the "last in, first out" tracking system for the spent carbon (see Finding 16 and Exhibit 1, paragraph 11).

- 15. Condition 3.B.6 of the Permit and Section 1.2 of Attachment 8 of the Permit by holding rejected wastes on-site for longer than 60 days (see Finding 17 and Exhibit 1, paragraph 12).
- 16. Condition 3.B.6 of the Permit and Section 5.2 of Attachment 8 of the Permit by failing to place a green barcode or a green acceptance mark near the barcode on containers that have been accepted and placed into storage (see Finding 18 and Exhibit 1, paragraph 13).
- 17. Condition 3.C.3 of the Permit by storing liquids with a flash point of less than or equal to 140°F in Bay 2 of Building E5 while in storage mode; and by storing liquids with a flash point of less than or equal to 140°F in the breezeway and Building E4 for longer than ten days (see Finding 19 and Exhibit 1, paragraph 14).
- 18. Condition 3.C.4 of the Permit by storing sulfides in Building E3; and by storing cyanides together with incompatible materials in row B of Bay 2 in Building E5 while in storage mode (see Finding 20 and Exhibit 1, paragraph 15).
- 19. Condition 3.D.9 of the Permit by failing to unload a transport vehicle carrying containers within ten days of being received at the facility (see Finding 21 and Exhibit 1, paragraph 16).
- 20. Condition 3.D.10 of the Permit by failing to maintain sufficient aisle space in the refrigerated trailer (see Finding 22 and Exhibit 1, paragraph 17).
- 21. Condition 3.D.13 of the Permit and Section 5 of Attachment 8 of the Permit by failing to accurately track waste while stored or treated at the facility (see Finding 23 and Exhibit 1, paragraph 18).
- 22. Condition 3.D.15 of the Permit by failing to store containers of medical waste on pallets in the refrigerated trailer (see Finding 24 and Exhibit 1, paragraph 19).
- 23. Condition 4.D.6 of the Permit by failing to maintain the level of waste in the large bulk solids tanks at or below the dividers between the tanks (see Finding 25 and Exhibit 1, paragraph 20).
- 24. Condition 4.D.4 of the Permit by failing to ensure that a qualified Utah registered professional engineer certify that each sludge tank and bulk solids tank can safely manage hazardous waste (see Finding 26 and Exhibit 1, paragraph 21).
- 25. Condition 4.D.21 of the Permit by failing to immediately take corrective action to reduce the oxygen concentration to below 5% in the hydrocarbon vent system; and by failing to document the cause of the elevated oxygen concentration and the corrective actions taken (see Finding 27 and Exhibit 1, paragraph 22).
- 26. Condition 5.A.6 of the Permit and Section 2.1 of Attachment 14 of the Permit by failing to maintain the flow of combustion air above 12,000 acfm when the vacuum pump and dilution air fan are operating; by failing to maintain the surface area of each of the NDOs in the bulk solids building at or below the specifications given in Table 1 (during normal operations) and Table 2 (during backup operations); and by failing to operate the bulk solids building such that the direction of air flow through all of the NDOs is inward (see Finding 28 and Exhibit 1, paragraph 23).

- 27. Condition 5.A.6 of the Permit and Section 2.7 of Attachment 14 of the Permit by exceeding the backup carbon adsorption system carbon bed life (see Finding 29 and Exhibit 1, paragraph 24).
- 28. Condition 5.D.46 of the Permit by exceeding the maximum allowable feed rate of mercury (see Finding 30 and Exhibit 1, paragraph 25).
- 29. Condition 5.D.51 of the Permit and Section 3.0 of the WAP in Attachment 1 of the Permit by failing to determine the incineration parameters for a waste prior to incineration; and by failing to determine the PCB concentrations as part of the incineration parameters (see Finding 31 and Exhibit 1, paragraph 26).
- 30. R315-262-15(a)(5)(i) and (ii) UAC by failing to properly label a container in the satellite accumulation area in the metals instrument lab (see Finding 32 and Exhibit 1, paragraph 27).
- 31. R315-262-17 UAC by holding containers of accumulated hazardous waste on site for more than 90 days; and by failing to maintain containers of accumulated hazardous waste closed (see Finding 33 and Exhibit 1, paragraph 28).
- 32. R315-268-3(c) UAC and Appendix XI of R315-268 UAC by incinerating prohibited wastes with the waste code of D009, toxicity characteristic for mercury (see Finding 34 and Exhibit 1, paragraph 29).

OPPORTUNITY FOR HEARING

This NOTICE OF VIOLATION is effective immediately and shall become final unless CHA administratively contests it. Failure to contest this NOTICE OF VIOLATION in the manner and within the time period prescribed by R305-7-303 UAC constitutes a waiver of any right of administrative contest, reconsideration, review, or judicial appeal.

Utah Code Section 19-6-113(2) provides that violation of any order, plan, rule, or other requirement issued or adopted under Title 19, Ch. 6, Pt. 1 may be subject to a civil penalty of up to \$13,000 per day for each day of violation.

Dated this 8th day of April, 2020

By:

Ty L/Howard, Director Division of Waste Management and Radiation Control

CERTIFICATE OF MAILING

I HEREBY CERTIFY that I mailed a true and correct copy of the foregoing **NOTICE OF VIOLATION** on the <u>8th</u> day of April, 2020 by US Certified Mail, Return Receipt Requested, to:

William Simmons, General Manager Clean Harbors Aragonite, LLC P.O. Box 1339 Grantsville, UT, 84029

Alma Rosas, Office Specialist, 04/08/2020

Notice of Violation No. 2001004 Exhibit 1 Factual Details Supporting Findings

- 1. Factual details supporting Finding 6:
 - a. Section 8 of SOP #003 (Preparation of Non-Aqueous Waste for Organic Analysis) specifies the sequence of steps for adding the sodium sulfate.
 - i. During the FY2019 inspection, the inspector(s) documented the following. The sodium sulfate was not added in the appropriate sequence of steps as required by SOP #003.
 - b. The current, approved version of SOP #209 (Block Digestion of Solids and Wastes) is Revision 2 (dated April 16, 2019). Section 8.1 of SOP #209 specifies weighing out 1.0 to 1.3 grams of solid or 2.0 to 2.3 grams of liquid waste. Section 8.1.1 of SOP #209 allows an alternative to these weights. It specifies that 0.5 grams of solid or 1.0 grams of liquid samples may be weighed and digested to a final filtered digestate volume of 50 ml. Section 8.2 of SOP #209 outlines an optional step of adding hydrogen peroxide to the sample. SOP #209 does not specify a different amount of spiking solution for the control blank spike (CBS)/control blank spike duplicate (CBSD). SOP #209 does not specify pre-wetting the filter with water, then rinsing the container with DI water before bringing it up to volume.
 - i. During the FY2019 inspection, the inspector(s) documented the following. The new metals preparation chemist was using Revision 1 (dated March 3, 2017) of SOP #209, not the current Permit approved version Revision 2 (dated April 16, 2019).
 - ii. During the FY2019 inspection, the inspector(s) documented the following. On August 27, 2019, the laboratory prepared 2 grams of sample rather than the SOP amount of 0.5 grams of solid or 1.0 grams of liquid to a final volume of 50 ml for digestion, contrary to that specified in SOP #209. The chemist did not note the reason for the deviation from the SOP.
 - iii. During the FY2019 inspection, the inspector(s) documented the following. Hydrogen peroxide was added to the samples for digestion, but not to the quality control samples, as required by SOP #209.
 - iv. During the FY2019 inspection, the inspector(s) documented the following. Digesting samples were not performed in accordance with SOP #209 as the chemist spiked one ml of spiking solution for the CBS/CBSD but he spiked two ml for the MS/MSD.
 - v. During the FY2019 inspection, the inspector(s) documented the following. The chemist pre-wet the filter with water, and then rinsed the container with DI water before bringing it up to volume during the digestion procedure, differing from SOP #209

- c. Section 7.1.6 of SOP #323 (Mercury in Liquid and Solid Materials) specifies that 7.5 ml of potassium permanganate be added to prepare the mercury samples.
 - i. During the FY2019 inspection, the inspector(s) documented the following. The chemist was adding 8 ml (instead of the 7.5 ml specified in the SOP #323) of potassium permanganate to prepare the mercury samples.
- d. Section 4.4.1 of SOP #402 (pH Determination for Solid and Waste Samples) specifies that an automatic temperature compensating probe be used in the pH analysis. Section 9.1.2 of SOP #402 specifies that the pH meter be calibrated every two hours. Section 9.4 of SOP #402 specifies that pH duplicates be performed for each matrix. Section 7.2.9 of SOP #402 specifies that the pH calibration slope be 100 ± 5 . Section 7.4.1 of SOP #402 specifies that the ending pH CVS be ± 0.05 .
 - i. During the FY2019 inspection, the inspector(s) documented the following. The technician failed to comply with SOP #402 when he did not use a temperature compensating pH probe because the instrument was broken and had not been replaced.
 - ii. During the FY2019 inspection, the inspector(s) documented the following. There was missing information throughout Lab Fingerprint #52 Logbook No. 3355. This included the initials of the technician, the date and time of the pH calibrations, and the pH buffer IDs. Therefore, it could not be verified that the pH meter had been calibrated every two hours as required by SOP #402. On April 23, 2019, only two calibrations appear on the calibration sheet. However, the log indicates that six calibrations were done during that day.
 - iii. During the FY2019 inspection, the inspector(s) documented the following. pH duplicates were not performed for each matrix as required by SOP #402. There were no pH matrix duplicates conducted April 17 through 19, 2019.
 - iv. During the FY2019 inspection, the inspector(s) documented the following. The second pH calibration on April 17, 2019, was outside the acceptable range, at 94.3. No corrective action was performed and/or documented as required by SOP #402.
 - v. During the FY2019 inspection, the inspector(s) documented the following. On April 19, 2019, the data indicated a value outside the tolerance range (6.86) for the ending pH CVS. No corrective action was performed and/or documented as required by SOP #402.
- e. ASTM Method 3278, referenced in SOP #407(Setaflash Ignitability), states that if a repeat test is necessary, a fresh specimen must be used. Section 8.7 of SOP #403 (Water Reactivity Testing) and section 8.1.4 of SOP #407 (Setaflash Ignitability) state that the results will be reported as "POS" or "NEG".
 - i. During the FY2019 inspection, the inspector(s) documented the following. For the Setaflash quality control calibration duplicate, the technician did not use a

new sample aliquot as required by SOP #407, but repeated the test with the same sample/calibration standard. Similarly, the same sample aliquot used for the ambient ignitability test was also used for the Setaflash test.

- ii. During the FY2019 inspection, the inspector(s) documented the following. The results for many of the tests were recorded in the logbooks as "P" and "N" or "K" and "-", rather than "POS" or "NEG", as required in SOPs #403 and #407. These notations were not listed with the other acronyms defined on the top of the page.
- 2. Factual details supporting Finding 7:
 - a. Condition 1.P of the Permit specifies that samples and measurements taken for the purpose of demonstrating compliance with the Permit be accurate and representative of the monitored activity.
 - i. During the FY2019 inspection, the inspector(s) documented the following. When CHA analyzes waste samples for heat content, and the result is greater than 20,000 Btu per pound, the result is reported as 20,000 Btu per pound.
- 3. Factual details supporting Finding 8:
 - a. Condition 1.Q.9 of the Permit requires that CHA notify the Director in writing within seven days of the emergency vent opening during operation.
 - i. During the FY2019 inspection, the inspector(s) documented the following. CHA reported 21 vent openings during FY2019. Three of the 21 notifications were submitted later than the required seven days: October 14, 2018 (12 days), December 18, 2018 (8 days), and January 27, 2019 (8 days).
 - During the FY2019 inspection, the inspector(s) documented the following. There were an additional three vent openings during FY2019 that were not reported. These vent openings occurred on September 28, 2018, January 5, 2019, and May 5, 2019.
- 4. Factual details supporting Finding 9:
 - a. Condition 1.Q.11 of the Permit requires that CHA notify the Director in writing within seven days of the baghouse bypassing during operation.
 - i. During the FY2019 inspection, the inspector(s) documented the following. Aragonite reported eight baghouse bypasses during FY2019. Three of the eight notifications were submitted later than the required seven days: December 18, 2018 (8 days), December 25, 2018 (9 days), and January 27, 2019 (8 days).
 - ii. During the FY2019 inspection, the inspector(s) documented the following. There was an additional baghouse bypass during FY2019 that was not reported. It occurred on September 28, 2018.

- 5. Factual details supporting Finding 10:
 - a. Condition 2.D of the Permit and the waste analysis plan. requires CHA to comply with the waste analysis procedures specified in Attachment 1 of the Permit. Section 1.0 of the WAP in Attachment 1 of the Permit specifies that CHA follow the methods and procedures in the Quality Assurance Plan (QAP) included as Appendix 1 of the WAP. Section 4 of the QAP specifies that there be a Quality Assurance Compliance Officer (QAO) at the facility. Section 12.1 of the QAP specifies that External Audits be completed by participating in semiannual blind round robin tests with other laboratories. Section 12.2 of the QAP requires that Internal Audits be performed on a quarterly basis by the QAO under the direction of the Laboratory Manager. Section 14 of the QAP specifies that corrective actions be initiated as a result of performance audits, system audits, and laboratory comparison studies, and that corrective action reports be reviewed and implemented. Section 15 of the QAP specifies that the QAO is responsible to report to the Laboratory Manager every four months on the performance of the measurement systems and data quality. It also specifies that these reports include an assessment of measurement data accuracy, precision, and completeness; results of performance audits; results of system audits; significant quality assurance problems, and recommended solutions. Section 4.5 of the WAP and Section 7.1 of the QAP specify that gummed sample labels be affixed to the sampling containers at the time of sampling. It also specifies that these labels be filled out at the time of sample collection. The Radioactivity Screen (Method Aragonite-6) in Section 5 of the WAP specifies that the window of the Geiger-Mueller detector be placed within one inch of the sample surface.
 - i. During the FY2019 inspection, the inspector(s) documented the following. CHA was not following the approved QAP in Attachment 1 of the Permit as required. The QAP that CHA was using was a different version that had been used for the Utah lab certification inspection.
 - ii. During the FY2019 inspection, the inspector(s) documented the following. CHA has not had a QAO for the laboratory since 2009, as required by the QAP, Section 4.
 - iii. During the FY2019 inspection, the inspector(s) documented the following. CHA failed to comply with Section 12.2 of the QAP as it could only provide a total of three quarterly audit reports for the last three years.
 - iv. During the FY2019 inspection, the inspector(s) documented the following. The first of these three audit reports only included a graph of monthly sample receipts. There was no auditing provided as required Section 12 of the QAP.
 - v. During the FY2019 inspection, the inspector(s) documented the following. Included in the second of these three audit reports was lab monitoring of specific items by selected technicians. CHA failed to adequately assess measurement data accuracy, precision, and completeness, the results of the performance and system audits, any significant quality assurance problems, and recommended solutions as required by Section 12 of the QAP because no information was provided in the reports as to whether these technicians had issues or concerns, or whether they

actually performed the tasks. The report just indicated that they were assigned to the task.

- vi. During the FY2019 inspection, the inspector(s) documented the following. The second audit report also indicated a failure for cyanide during an audit. The report did not indicate who the employee was that analyzed the samples or the expected date that the corrective action plan would be completed.
- vii. During the FY2019 inspection, the inspector(s) documented the following. The third audit report showed that zinc and manganese were not within the acceptable ranges. No corrective action plan was generated for the out-of-control sample results.
- viii. During the FY2019 inspection, the inspector(s) documented the following. When CHA was validating samples, the heat content for sample #18030359 was flagged as being high (23,300 Btu per pound). A request was made to rerun the sample. The sample was not rerun, but instead entered as 20,000 Btu per pound in the waste tracking system. This generated a corrective action report dated March 21, 2018. The corrective action plan indicated that they would rerun samples before reporting if the result is over 20,000 Btu per pound. The corrective action plan completion was not done and/or documented. During discussions with the technician during the inspection, it was determined that samples are not rerun when the result is over 20,000 Btu per pound, and the heat content is reported as 20,000 Btu per pound for those samples.
 - ix. During the FY2019 inspection, the inspector(s) documented the following. The audit reports were completed by the Laboratory Manager; not a QAO as required by the QAP.
 - x. During the FY2019 inspection, the inspector(s) documented the following. Sampling of drums was observed in Building E1. Sample labels were not filled out and attached to the sample bottles at the time of sample collection, as required by the Permit, Section 4.5 of the WAP and Section 7.1 of the QAP.
 - xi. During the FY2019 inspection, the inspector(s) documented the following. CHA was conducting the Radioactivity Screen by passing the detector window over the outside of the drum and sample container in both laboratories, rather than within one inch of the sample surface as required in Section 5 of the WAP.
- b. Condition 2.D of the Permit requires CHA to comply with the waste analysis procedures specified in Attachment 1 of the Permit. Section 3.0 of the WAP in Attachment 1 of the Permit requires that CHA categorize each waste according to the waste categories in Table 2 of the WAP. It also specifies that CHA clearly document the waste category for each waste stream accepted at the facility by noting the category code for each waste stream on the *Waste Receiving Report*. Table 2 specifies that lab packs are containers packed inside a larger container and will have a lab pack profile and inventory sheets. Table 2 specifies that consolidation containers are shipping containers containing small containers of consumer packaged materials. Table 2 specifies that debris is a

homogeneous or heterogeneous solids material. Debris may not have containers containing any liquid.

- i. During the FY2019 inspection, the inspector(s) documented the following. Containers 81939390, 82138166, 81941247, and 82154761-65 were shipped as lab packs and had inventory sheets. CHA categorized them as consolidation containers.
- ii. During the FY2019 inspection, the inspector(s) documented the following. Containers 82113589, 82286110, and 81830478 were shipped as lab packs and had inventory sheets. CHA categorized them as debris.
- iii. During the FY2019 inspection, the inspector(s) documented the following. CHA categorized container 82462985 as debris. It held inner containers of formalin, which is a liquid.
- iv. During the FY2019 inspection, the inspector(s) documented the following. There was no *Waste Receiving Report* for line 2 of manifest 009603541FLE (containers 78704452-78704459).
- c. Condition 2.D of the Permit requires CHA to comply with the waste analysis procedures specified in Attachment 1 of the Permit. The WAP in Attachment 1 of the Permit specifies the procedures for approving a profile for a waste stream to be managed at the facility. Section 3.1.1 specifies that if a waste is approved for management at the facility, a unique identification number is assigned to the waste stream. Section 1.U of the Permit defines a waste stream as a waste that is, or should be (as defined by the US DOT description), identified as a line item on the Uniform Hazardous Waste Manifest from the same source of generation delivered with the same waste load.
 - i. During the FY2019 inspection, the inspector(s) documented the following. The generator for the profile for container 82631631 (profile LCCRD) was Clean Harbors Environmental Services, Inc. in Norwell, MA. Container 82631631 was shipped on manifest 000291437DAT. The generator on the manifest was Kelly Moore Store # 602 in Oakland, California.
 - During the FY2019 inspection, the inspector(s) documented the following. The generator for the profile for container 82408623 (profile LCHG2) was Clean Harbors Environmental Services, Inc. in Norwell, MA. Container 82408623 was shipped on manifest 013543219FLE. The generator on the manifest was Shoreline Community College in Shoreline, Washington.
 - iii. During the FY2019 inspection, the inspector(s) documented the following. The generator for the profile for container 81854335 (profile LCCRN-INTER) was Clean Harbors Environmental Services, Inc. in Norwell, MA. Container 81854335 was shipped on manifest 013843741FLE. The generator on the manifest was Clean Harbors Environmental Services, Inc. in Kimball, Nebraska.
- d. Condition 2.D of the Permit requires CHA to comply with the waste analysis procedures specified in Attachment 1 of the Permit. Section 3.3 of the WAP in Attachment 1 of the

Permit specifies that for those wastes which cannot be sampled or analyzed, the facility will develop a set of incineration parameters for each category of waste using the procedures described in Sections 3.3.2 through 3.3.5. Section 3.3.2 of the WAP specifies that for each lab pack DOT hazard class, CHA will establish an incineration chemistry based on the analyses of fifty samples. It further requires that the matrix be updated annually by including the analysis of samples from a minimum of ten additional lab pack containers from each DOT hazard class. It then requires that, whenever a lab pack is incinerated, it will be assigned the incineration parameters from the matrix that corresponds to the DOT hazard class of the lab pack. It also requires that records of supporting analyses and calculations used to determine lab pack incineration parameters be maintained in the facility operating record. Identical requirements are specified for consolidation containers in Section 3.3.3, for debris in Section 3.3.4, and for consumer products, pharmaceuticals, and gas cylinders in Section 3.3.5. These requirements were established and effective on May 11, 2016, so there should be a total of eighty samples that should be included in each waste category/hazard class evaluation.

- i. During the FY2019 inspection, the inspector(s) documented the following. There are a total of 48 waste category/hazard class combinations. CHA had not yet completed the initial evaluation with fifty samples for ten of the combinations. CHA had not done any of the annual evaluations using the additional ten samples for any of the three years since the requirement has been in place.
- During the FY2019 inspection, the inspector(s) documented the following. Container 81830478 was in the waste category of lab pack and had a DOT hazard class of 6.1. The chemistry assigned to this container did not match the chemistry that CHA had developed for that combination.
- iii. During the FY2019 inspection, the inspector(s) documented the following. Container 81844921 was in the waste category of consolidation container and had a DOT hazard class of 5.1. The chemistry assigned to this container did not match the chemistry that CHA had developed for that combination.
- iv. During the FY2019 inspection, the inspector(s) documented the following. Container 81920315 was in the waste category of consolidation container and had a DOT hazard class of 8. The chemistry assigned to this container did not match the chemistry that CHA had developed for that combination.
- v. During the FY2019 inspection, the inspector(s) documented the following. Container 82113589 was in the waste category of lab pack and had a DOT hazard class of 6.1. The chemistry assigned to this container did not match the chemistry that CHA had developed for that combination.
- vi. During the FY2019 inspection, the inspector(s) documented the following. Container 82113590 was in the waste category of debris and had a DOT hazard class of 6.1. The chemistry assigned to this container did not match the chemistry that CHA had developed for that combination.

- vii. During the FY2019 inspection, the inspector(s) documented the following. Container 81787938 was in the waste category of lab pack and had a DOT hazard class of 4.3. The chemistry assigned to this container did not match the chemistry that CHA had developed for that combination.
- viii. During the FY2019 inspection, the inspector(s) documented the following. Container 82286765 was in the waste category of lab pack and had a DOT hazard class of 6.1. The chemistry assigned to this container did not match the chemistry that CHA had developed for that combination.
- ix. During the FY2019 inspection, the inspector(s) documented the following. Container 81933853 was in the waste category of consolidation container and had a DOT hazard class of 5.1. The chemistry assigned to this container did not match the chemistry that CHA had developed for that combination.
- x. During the FY2019 inspection, the inspector(s) documented the following. CHA had records of all of the analytical data used to develop the incineration chemistries for the various waste category/hazard class combinations. However, the calculations which use those analyses to determine the overall chemistry for each particular combination could not be validated.
- 6. Factual details supporting Finding 11:
 - a. Condition 2.F of the Permit requires CHA to comply with the inspection procedures in Attachment 3 of the Permit. Section 4.0 of Attachment 3 of the Permit specifies that any malfunction or deterioration discovered by an inspection be corrected within 72 hours, and if the remedy requires more time, CHA will submit to the Director, before the expiration of the 72-hour period, a proposed time schedule for correcting the problem. Attachment 3 also requires daily inspections of the container buildings.
 - i. On May 14, 2019, (in a letter dated May 8, 2019 (DSHW-2019-004803)) CHA notified the Director that on May 7, 2019, the facility discovered that it had failed to notify the Director after discovering damage to the floors in the container storage buildings that could not be repaired within 72 hours.
 - During the FY2019 inspection, the inspector(s) documented the following. The Bulk Solids Unloading Daily inspection failed on December 19, 2018, for the rollup door that was not in working condition. A work ticket was generated for the rollup door (19453877-002). The work ticket indicated that the rollup door was fixed on January 10, 2019. CHA did not submit a 72-hour delay-in-repair letter for the rollup door to the Director as required by Attachment 3.
 - During the FY2019 inspection, the inspector(s) documented the following. There was no record that the Daily Container Buildings Inspection was completed on December 30, 2018.

- iv. During the FY2019 inspection, the inspector(s) documented the following. Work tickets for liquid under the bulk solids tanks discovered on March 14, 2019, were closed out on March 20, 2019, but they don't indicate when the containment was pumped out, and no 72-hour delay-in-repair letter was submitted to the Director as required by Attachment 3.
- 7. Factual details supporting Finding 12:
 - a. Condition 2.G of the Permit requires CHA to comply with the personnel training procedures in Attachment 4 of the Permit. Section 2.0 of Attachment 4 of the Permit requires that the required training occur within six months of the date of hire. Section 2.5 of Attachment 4 of the Permit requires that documentation of the training be maintained in each employee's training file. Table 2 of Attachment 4 of the Permit specifies that Course HS4020 (Forklift Training) is required for Chemical Handlers.
 - i. During the FY2019 inspection, the inspector(s) documented the following. Six months after the date of hire for Ryan Millward was December 5, 2018. CHA failed to comply with Attachment 4 as course SS2000 (Permit Training) was not completed by Mr. Millward until February 8, 2019.
 - ii. During the FY2019 inspection, the inspector(s) documented the following. Six months after the date of hire for Aaron Sundet was June 4, 2019. CHA failed to comply with Attachment 4 as course SS2080 was not completed by Mr. Sundet until June 27, 2019.
 - iii. During the FY2019 inspection, the inspector(s) documented the following. Many of the courses listed in the training summaries did not have documentation in the training files. SS2016 (New Employee Orientation), SS2027 (Industrial Safety Training), and HS6020 (Fire Safety) are shown as being completed by Jace Broadbent on August 28, 2018, in his training summary, but there is no record of those courses in his training file. SS2027 (Industrial Safety Training), SS2025 (Contingency Plan), SS2017 (Site Orientation Refresher), AG1305 (Forklift Training), and HS6701 (Confined Space Refresher) are shown on Jace Broadbent's training summary as being completed August 29, 2019, and August 30, 2019, but there was no supporting documentation in his training file. HS6305 (Personal Protective Equipment/ HAZWOPER Refresher Module) is shown as being taken on September 7, 2018, but there's no supporting documentation in Mr. Broadbent's training file.
 - iv. During the FY2019 inspection, the inspector(s) documented the following. Courses HS6305 (Personnel Protective Equipment/HAZWOPER Refresher Module) and HS6304 (Confined Space/Heat Stress HAZWOPER Refresher Module) are listed in the training summary for Kinsey Cameron as being completed on July 31, 2018, but her training file contains no supporting documentation for those courses.
 - v. During the FY2019 inspection, the inspector(s) documented the following. The training summary for Ashton Walters indicates that course HS6305 (Personnel Protective Equipment/HAZWOPER Refresher Module) was completed on May

29, 2018, but there's no documentation to confirm this in her training file.

- vi. During the FY2019 inspection, the inspector(s) documented the following. The training summary for Ryan Millward indicates that Course HS6700 (Confined Space Entry Entrant/Attendant) was completed on June 6, 2018. However, no documentation supporting this was included in his training file. His training summary indicates that course HS4026 (Forklift Refresher) was completed on June 25, 2019, but there was no supporting documentation in his training file for this event.
- vii. During the FY2019 inspection, the inspector(s) documented the following. Courses HS6305 (Personnel Protective Equipment/HAZWOPER Refresher Module) and SS2016 (Site Orientation) are shown in the training summary for Michael Hatch as being completed on August 3, 2018, and August 6, 2018, but no confirmation could be identified in his training file. Course HS6020 (Fire Safety) and HS6000 (CPR) are shown as being completed on January 25, 2019, and August 15, 2019, in his training summary, but no documentation for these courses was located in his training file.
- viii. During the FY2019 inspection, the inspector(s) documented the following. The training summary for Meranda Jolley shows that Course HS6305 (Personnel Protective Equipment/HAZWOPER Refresher Module) and Course HS6301 (Globally Harmonize System/HAZWOPER Refresher Module) were completed on September 4, 2018, and November 29, 2018, but no supporting documentation was found in her training file.
 - ix. During the FY2019 inspection, the inspector(s) documented the following. There was no supporting documentation in the training file for Sarah Sims for Course 4020 (Forklift Training) which was shown as being completed on November 1, 2018, on her training summary, and Course HS6305 (Personnel Protective Equipment/HAZWOPER Refresher Module) which was shown as being completed on October 17, 2018, on her training summary.
 - x. During the FY2019 inspection, the inspector(s) documented the following. Aaron Sundet's training file did not include documentation for Courses SS2081 (Lab Safety) on December 4, 2018, HS6302 (Medical/Bloodborne Pathogens/HAZWOPER Refresher Module) on February 27, 2019, SS2001 (Permit Refresher) on March 14, 2019, HS6303 (Respiratory Protection/ HAZWOPER Refresher Module) on March 28, 2019, HS6304 (Confined Space/Heat Stress/HAZWOPER Refresher Module) on April 26, 2019, SS2027 (Industrial Safety Training) on June 18, 2019, and SS2080 (Lab QC) on June 27, 2019, as noted on his training summary.
 - xi. During the FY2019 inspection, the inspector(s) documented the following. There was no documentation in the training file for Seleka Dean for HS6020 (Fire Safety) on September 18, 2018, HS6306 (Decontamination Procedures/ HAZWOPER Refresher Module) on March 27, 2019, HS6307 (Emergency Response/HAZWOPER Refresher Module) and HS6304 (Confined Space/HAZWOPER Refresher Module) on March 28, 2019, AG1305 (Forklift

Refresher) on June 12, 2019, and HS6020 (Fire Safety) on August 15, 2019, as noted on her training summary.

- xii. During the FY2019 inspection, the inspector(s) documented the following. Ryan Millward was a Facility Technician. The Facility Technician job title corresponds to the job title of Chemical Handler in the Permit. There is no indication on his training summary or documentation in his training file that Course HS4020 (Forklift Training) was ever completed.
- 8. Factual details supporting Finding 13:
 - a. Condition 2.1 of the Permit requires CHA to maintain at the facility the emergency equipment and systems identified in Attachment 5 of the Permit. Section 2.4 of Attachment 5 of the Permit requires that CHA maintain decontamination equipment as necessary to assure its proper operation in time of emergency
 - i. During the FY2019 inspection, the inspector(s) documented the following. A ladder was blocking the access to the emergency shower/eye wash in front of Building 68.
- 9. Factual details supporting Finding 14:
 - a. Condition 2.K of the Permit requires that CHA comply with the manifest requirements of R315-264-71 and R315-264-72 UAC. R315-264-71(a)(2)(ii) UAC specifies that CHA must note any discrepancies on each copy of the manifest. R315-264-72(c) UAC requires that upon discovering significant discrepancies, CHA shall attempt to reconcile the discrepancy with the waste generator or transporter. Section 2.4 of Attachment 8 of the Permit specifies that written documentation of these discussions and resolutions will be clearly noted in the document packet for each manifest. R315-264-71(c) UAC requires that whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility shall comply with the requirements of R315-262 UAC. R315-262-20(a)(1) UAC requires that a generator who offers for transport a rejected hazardous waste load, shall prepare a manifest. R315-262-23 UAC requires the generator to sign the manifest, obtain the signature of the initial transporter, retain one copy, and send the other copies with the transporter.
 - i. During the FY2019 inspection, the inspector(s) documented the following. Drum 82025583 was shipped to Aragonite on line 2 of manifest 012598432FLE. The DOT shipping description on the manifest was "RQ, UN3264, Waste Corrosive Liquid, Acidic, inorganic, N.O.S. Solution (Hydrochloric Acid, Chromium) 8, PGII (D002, D008) Marine Pollutant = (Lead, Chrome)". A sample of the waste tested positive for the oxidizer screen. The manifest in waste tracking was changed to reflect this discrepancy. The DOT description was also changed on the manifest in RCRAInfo. It now reads "UN3098, Waste Oxidizing Liquid, Corrosive, N.O.S. (Hydrochloric Acid, Chromium), 5.1, (8), PGII, Marine Pollutant". CHA has documentation of the communications with the generator to resolve the discrepancy, but the discrepancy was not noted on the manifest.
 - ii. During the FY2019 inspection, the inspector(s) documented the following. Drum

81493881 was shipped to Aragonite on line 18 of manifest 013211889FLE. The DOT shipping description on the manifest was "NA3082, Hazardous Waste Liquid, N.O.S. (Formalin, Methanol), 9, PGIII". A sample of the waste tested positive for the ignitability screen. The manifest in waste tracking was changed to reflect this discrepancy. The DOT description was also changed on the manifest in RCRAInfo. It now reads "UN2924, Waste Flammable Liquids, Corrosive, N.O.S. (Formalin, Methanol), 3 (8), PGIII". CHA has documentation of the communications with the generator to resolve the discrepancy, but the discrepancy was not noted on the manifest.

- iii. During the FY2019 inspection, the inspector(s) documented the following. Manifest 013543444FLE shows one item on line 2 (81967654). Waste tracking shows two items on line 2. The other item is 82675710. The discrepancy was not noted on the manifest. CHA believed that they had resolved the discrepancy with the generator; however, they had no documentation showing the communications to resolve the discrepancy with the generator.
- iv. During the FY2019 inspection, the inspector(s) documented the following. Manifest 013260256FLE shows one item on line 4 (81999857). Waste tracking shows four items on line 4. The other items are 82891085-82891087. The discrepancy was not noted on the manifest. CHA believed that they had resolved the discrepancy with the generator; however, they had no documentation showing the communications to resolve the discrepancy with the generator.
- v. During the FY2019 inspection, the inspector(s) documented the following. Drum 82078715 was shipped to Aragonite on manifest 012644566FLE on August 15, 2019. It was later rejected by CHA and shipped to Clean Harbors El Dorado. A hazardous waste manifest was not prepared, signed by CHA, signed by the initial transporter, and shipped with the waste.
- 10. Factual details supporting Finding 15:
 - a. Condition 2.R of the Permit. specifies that CHA comply with the polychlorinated biphenyl (PCB) management procedures in Attachment 17 of the Permit. Section II of Attachment 17 of the Permit requires that CHA comply with all of the PCB regulations contained in 40 CFR Part 761. 40 CFR §761.1(b)(i) specifies that any person determining PCB concentrations for non-liquid PCBs must do so on a dry weight basis.
 40 CFR §761.274(a) specifies that all sample concentrations for non-liquid PCBs be reported on a dry weight basis.
 - i. During the FY2019 inspection, the inspector(s) documented the following. CHA reports all samples (including PCBs) on an "as received" or "wet weight" basis.
- 11. Factual details supporting Finding 16:
 - a. Condition 3.A.1 of the Permit. specifies that CHA comply with all requirements of the Permit when storing and/or treating site-generated wastes. Section 2.7 of Attachment 14 of the Permit specifies that the spent carbon from the backup carbon adsorption system will be managed as a hazardous waste and that records of the dates the carbon is

removed, placed into permitted storage, and treated will be maintained in the operating record. Section 5.2 of Attachment 8 of the Permit requires that each waste be tracked in the plant-wide database with a unique tracking number. Condition 2.L of the Permit specifies that CHA maintain an operating record in accordance with R315-264-73 UAC. R315-264-73(a)(1) UAC requires that the quantity of waste be included in the operating record. Section 5.8 of Attachment 8 specifies that the bulk solids tanks use a "last in, first out" tracking system.

- i. During the FY2019 inspection, the inspector(s) documented the following. Carbon was removed from both carbon adsorption beds on July 18, 2019. It was combined with carbon from the carbon injection silo and placed into the bulk solids tanks and then incinerated. CHA did not assign a tracking number to this waste and did not track it in the waste tracking system.
- ii. During the FY2019 inspection, the inspector(s) documented the following. The carbon removed from the carbon adsorption beds on July 18, 2019, was not weighed before placing it in the bulk solids tanks.
- iii. During the FY2019 inspection, the inspector(s) documented the following. The carbon removed from the carbon adsorption beds on July 18, 2019, and placed in the bulk solids tanks was not tracked in the "last in, first out" tracking system.
- 12. Factual details supporting Finding 17:
 - a. Condition 3.B.6 of the Permit requires CHA to comply with the provisions specified in Attachment 8 of the Permit (Waste Storage, Processing, and Tracking). Section 1.2 of Attachment 8 of the Permit specifies the requirements for rejected wastes. It specifies that rejected wastes not remain on-site for longer than 60 days, unless an extension has been granted by the Director.
 - During the FY2019 inspection, the inspector(s) documented the following. During FY2019, four of the rejects (78720946, 78720944, 78720945, and 78720946) exceeded the 60-day time limit. No extension had been granted by the Director.
- 13. Factual details supporting Finding 18:
 - a. Condition 3.B.6 of the Permit requires CHA to comply with the provisions specified in Attachment 8 of the Permit (Waste Storage, Processing, and Tracking). Section 5.2 of Attachment 8 of the Permit specifies that containers that have been accepted and placed into storage will have a green barcode or a green acceptance mark near the barcode.
 - i. During the FY2019 inspection, the inspector(s) documented the following. There were several containers in the refrigerated trailer that had been accepted that did not have a green barcode or green acceptance mark. These included 82307343, 82307344, 82307346, 82446225, 82448132, and 82448133.

- 14. Factual details supporting Finding 19:
 - a. Condition 3.C.3 of the Permit specifies where liquids with a flash point of less than or equal to 140°F may be stored. It does not include Bay 2 of Building E5 while in storage mode. It only allows storage in the breezeway and Building E4 for up to ten days. Section 3.0 of Attachment 1 of the Permit states that liquid samples that test positive for flash point at 140°F will be considered ignitable liquids subject to the restrictions in Conditions 3.C.3. Section 3.0 of Attachment 1 of the Permit 1 of the Permit also states that material shipped as "flammable liquids" or with a DOT hazard class of "3" will be considered ignitable liquids, and that if CHA does not believe that it is an ignitable liquid, the reason for the decision to not manage the waste as an ignitable liquid will be noted on the *Waste Receiving Report*.
 - i. During the FY2019 inspection, the inspector(s) documented the following. Container 81797409 was shipped as a DOT hazard class 3 (flammable liquid) and tested positive for ignitability (i.e., a flash point of less than 140°F). It also had the D001 waste code (indicating ignitability). The barcode indicated that it was ignitable and it had a flammable liquid label on it. It was being stored in Bay 2 of Building E5. Bay 2 was in storage mode.
 - ii. During the FY2019 inspection, the inspector(s) documented the following. There were several other drums being stored in Bay 2 of Building E5 that indicated that they were ignitable on the barcode. These included drums 81314539, 81314558, and 81314565. These had the D001 waste code (indicating ignitability) and a DOT shipping name (Waste Corrosive Liquids, Flammable) and hazard class (8, (3)) that indicated that they were flammable (as a secondary hazard). There was nothing on the *Waste Receiving Report* indicating that Aragonite did not consider these to be ignitable waste.
 - iii. During the FY2019 inspection, the inspector(s) documented the following. Waste tracking showed that drum 81944992 was stored in Building E4 and the breezeway from August 13, 2019, until September 12, 2019 (30 days), beyond the ten day storage limit. It was shipped as a flammable liquid with a DOT hazard class of 3 (flammable liquid). There was nothing on the *Waste Receiving Report* indicating that Aragonite did not consider this to be an ignitable waste.
- 15. Factual details supporting Finding 20:
 - a. Condition 3.C.4 of the Permit specifies that cyanides and sulfides are to be stored in Building 69. When the capacity in Building 69 is not adequate, such as during turnarounds, CHA may store them in the bays in Buildings E1 and E5, provided they have given the Director oral and written notification. On September 10, 2019, CHA provided notification of their intent to store cyanides in the bays due to the lack of capacity during the turnaround. Other materials which are potentially incompatible with these materials are not allowed to be stored in the same area as these materials.
 - i. During the FY2019 inspection, the inspector(s) documented the following. Container 82169279 was a lab pack described as hydrated sodium sulfide. In violation of Condition 3.C.4, waste tracking shows that it was stored in E3-N05-

- L1 from September 13 to September 24, 2019.
- ii. During the FY2019 inspection, the inspector(s) documented the following. Container 81832277 was described as zinc cyanide and had the D003 waste code. Container 81965778 was described as sodium cyanide and zinc cyanide and had the D003 waste code. Container 81966346 was described as acidic corrosive liquid (hydrochloric acid) and had the D002 waste code and a pH of 2.2. All three were stored together in row B of Bay 2 in Building E5. Bay 2 was in storage mode.
- 16. Factual details supporting Finding 21:
 - a. Condition 3.D.9 of the Permit requires that CHA unload any transport vehicle carrying containers within ten days of being received at the facility.
 - i. On August 9, 2019, (in a letter dated August 7, 2019 (DSHW-2019-009005)) CHA notified the Director that on August 5, 2019, the facility discovered that it did not unload containers from a transport vehicle within ten days of receipt
- 17. Factual details supporting Finding 22:
 - a. Condition 3.D.10 of the Permit requires CHA to maintain sufficient aisle space in the container management areas.
 - i. During the FY2019 inspection, the inspector(s) documented the following. There were two containers of medical waste stored in the aisle space in the refrigerated trailer.
- 18. Factual details supporting Finding 23:
 - a. Condition 3.D.13 of the Permit requires CHA to maintain a record of the location of each container in the container storage areas. It also specifies that a history of the movement of each container of waste be maintained from the time it is placed into one of the container management areas until it is either incinerated or manifested off-site. It also specifies that CHA provide the Director a remote link and the appropriate query system to access to the electronic waste tracking system. It also requires CHA to comply with the waste tracking provisions of Attachment 8 of the Permit. Section 5 of Attachment 8 of the Permit requires that containers of wastes be tracked in real time so that their location is known at any time. Section 5.2.2 of Attachment 8 of the Permit describes the requirements that CHA will follow when containers are not in the location shown in the waste tracking system. For containers that physically exist (or existed) that cannot be located at the facility, CHA will update the waste tracking system by moving the container record to the "DWB" virtual location and begin efforts to locate the container or resolve the discrepancy. All efforts to locate the missing containers or resolve the discrepancies must be thoroughly documented.
 - During the FY2019 inspection, the inspector(s) documented the following. Drum 78428206 was physically located in E1-M at Aragonite during the inspection. The Division's access to the waste tracking system indicated that it was not at

Aragonite. However, the drum was in the CHA waste tracking system. The drum was shipped from CHA to Kinsbursky Brothers Inc. on April 24, 2019. It was rejected by Kinsbursky and returned to Aragonite on May 23, 2019. The drum later showed up on the Division's access to waste tracking. However, the waste tracking system does not ever show it being shipped off-site and returning.

- ii. During the FY2019 inspection, the inspector(s) documented the following. Item 82042356 was an oxygen cylinder physically located in the cylinder storage area on September 25, 2019. The Division's access to the waste tracking system indicated that it was not at Aragonite. However, the drum was in the CHA waste tracking system. It had been put on line 5 of manifest 013803453FLE to be shipped to Clean Harbors LaPorte (LT) on August 28, 2019. It did not get shipped with the manifest and was reported as a discrepancy by LT. It was then placed on a new manifest (line 4 of manifest 013803503FLE) to be shipped to LT on September 4, 2019. Waste tracking showed that it arrived at LT on September 17, 2019, and was still there on September 30, 2019. The manifest was signed by LT on September 17, 2019, and there was no indication of any discrepancies.
- iii. During the FY2019 inspection, the inspector(s) documented the following. Items 81967654 and 82675710 were both at Aragonite and were later shipped to another Clean Harbors facility. These do not show up on the Division's access to the waste tracking system.
- iv. During the FY2019 inspection, the inspector(s) documented the following. Items 81899857and 82891085-82891087 were all at Aragonite and were later shipped to another Clean Harbors facility. These do not show up on the Division's access to the waste tracking system.
- v. During the FY2019 inspection, the inspector(s) documented the following. The query for the infectious wastes at the facility on the Division's access to the waste tracking system was not functional.
- vi. During the FY2019 inspection, the inspector(s) documented the following. Drums 79028079 and 79028121 were in the "DWB" virtual location and were resolved by voiding them. During the inspection, CHA put together a summary of why they came to that resolution. The summary indicated that these two drums were highlighted on the repack logs and that there was a sticky note, but it was illegible. It had been long enough since they were repacked before they did the resolution that the employee that wrote the note was no longer with the company. Nobody knew why the drums were highlighted. CHA was unable to produce the referenced repack logs and note.
- vii. During the FY2019 inspection, the inspector(s) documented the following. Waste tracking showed that container 81866898 was still on the BZCON (breezeway conveyor) when it was no longer there. Rather than investigating what happened to the container, it was manually incinerated in waste tracking. This turned out to not be the case, as the container later showed up in E4-J as a zero-weight container.
- viii. During the FY2019 inspection, the inspector(s) documented the following. Waste tracking showed that drum 82078715 was rejected by CHA on September 26, 2019, but also shows it in inventory locations at Aragonite through October 28, 2019

- 19. Factual details supporting Finding 24:
 - a. Condition 3.D.15 of the Permit requires that CHA store gas cylinders and bulk containers on pallets.
 - i. During the FY2019 inspection, the inspector(s) documented the following. Two containers of medical waste stored in the aisle in the refrigerated trailer, not on pallets.
- 20. Factual details supporting Finding 25:
 - a. Condition 4.D.6 of the Permit requires CHA to maintain the level of waste in the large bulk solids tanks at or below the dividers between the tanks.
 - i. During the FY2019 inspection, the inspector(s) documented the following. Some of the waste in tank T404-A (one of the large bulk solids tanks) was piled above the tank dividers.
- 21. Factual details supporting Finding 26:
 - a. Condition 4.D.4 of the Permit requires that, at least once every four years, CHA shall empty, visually inspect, and measure the corrosion in each sludge tank and bulk solids tank, and an independent, qualified Utah registered professional engineer shall certify that each tank can safely manage hazardous waste.
 - i. During the FY2019 inspection, the inspector(s) documented the following. The inspection reports for T-406 and T-403 (sludge tanks) and T-404A (bulk solids tank) indicate that only a partial visual inspection was performed due to a lack of cleanliness. The engineer did not certify that the tanks can safely manage hazardous waste.
- 22. Factual details supporting Finding 27:
 - a. Condition 4.D.21 of the Permit specifies that the concentration of oxygen in the hydrocarbon vent system shall be maintained below 5%. It further specifies that if the oxygen concentration exceeds 5%, corrective action will immediately be taken to reduce the oxygen concentration to below 5%, and the cause of the elevated.
 - i. During the FY2019 inspection, the inspector(s) documented the following. CHA documents the causes and corrective actions for oxygen exceedances in the hydrocarbon vent system on *System Trouble Reports*. There was no *System Trouble Report* or other documentation for the oxygen excursion that occurred on December 30, 2018.
- 23. Factual details supporting Finding 28:
 - a. Condition 5.A.6 of the Permit requires that CHA comply with the provisions specified in the Fume Management Plan, Attachment 14 of the Permit. Section 2.1 of Attachment 14

of the Permit specifies that the flow of combustion air will be maintained above 12,000 acfm when the vacuum pump and dilution air fan are operating. Section 2.1 of Attachment 14 of the Permit also requires that CHA maintain the surface area of each of the Natural Draft Openings (NDOs) in the Procedure T Enclosure at or below the specifications given in Table 1 (during normal operations) or Table 2 (during backup operations). Section 2.1 of Attachment 14 of the Permit also requires that the bulk solids building be operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T -- Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR §52.741, Appendix B. Section 5.4 of 40 CFR §52.741, Appendix B requires that the direction of air flow through all NDOs be inward.

- i. During the FY2019 inspection, the inspector(s) documented the following. There were three instances (October 1, 2018, March 26, 2019, and August 7, 2019) where the vacuum pump and dilution air fan were operating and the combustion air flow was less than 12,000 acfm.
- ii. During the FY2019 inspection, the inspector(s) documented the following. The north rollup door and frame on the bulk solids building had been replaced and the gap where the frame meets the wall of the building had not been sealed. This gap was not an allowable NDO in Tables 1 and 2.
- iii. During the FY2019 inspection, the inspector(s) documented the following. There was a fist-sized hole along the gap between the north rollup door frame and the bulk solids building where the concrete of the wall had broken out. This hole was not an allowable NDO in Tables 1 and 2.
- iv. During the FY2019 inspection, the inspector(s) documented the following. The caulking on the gap between the center rollup door frame and the bulk solids building only went part way up. This gap was not an allowable NDO in Tables 1 and 2.
- v. During the FY2019 inspection, the inspector(s) documented the following. CHA performed a smoke test on these gaps and hole during the inspection. The smoke was not pulled into the gaps and hole.
- vi. During the FY2019 inspection, the inspector(s) documented the following. There was a large gap (several inches wide) along the edge of the seal closest to the door on the NDO below the apron feeder feed chute during backup operations. This gap was not an allowable NDO in Table 2. This gap had not been fixed when it was inspected again three days later.
- vii. During the FY2019 inspection, the inspector(s) documented the following. An access door on the east side of the shredder had not been completely closed during normal operations, leaving a gap of more than an inch. This gap was larger than the allowable NDO in Table 1.
- 24. Factual details supporting Finding 29:
 - a. Condition 5.A.6 of the Permit and the Fume Management Plan, Attachment 14 specifies that the carbon in the backup carbon adsorption system be replaced on a regular predetermined time interval based on the flow rates and VOC concentrations in the closed vent system. The carbon replacement intervals are re-determined annually, and

were last calculated and implemented on July 18, 2019. The carbon replacement interval was set at 226 hours.

- i. On September 24, 2019, (in a letter dated September 23, 2019 (DSHW-2019-011803)) CHA notified the Director that on September 18, 2019, the CHA discovered that the east carbon bed was operated for 235.22 hours, which exceeded the backup carbon adsorption system carbon bed life of 226 hours specified on July 18, 2019
- 25. Factual details supporting Finding 30:
 - a. Condition 5.D.46 of the Permit limits the feed rate of mercury to the incinerator to 0.76 pounds per hour on a 12-hour rolling average basis.
 - i. On November 9, 2018, (in a letter dated November 8, 2018 (DSHW-2018-010921)) CHA notified the Director that on November 1, 2018, CHA discovered that it had inadvertently incinerated a drum containing 1.78 pounds of mercury, which exceeded the maximum allowable feed rate for mercury
- 26. Factual details supporting Finding 31:
 - a. Condition 5.D.51 of the Permit requires CHA to conduct sufficient analysis of the feed, in accordance with the waste analysis requirements of Conditions 2.D. and 5.D., to verify that the waste fed to the incinerator is within the physical and chemical composition limits specified in the Permit. Condition 2.D of the Permit requires CHA to comply with the waste analysis procedures specified in Attachment 1 of the Permit. Section 3.0 of the WAP in Attachment 1 specifies that the incineration parameters must be determined prior to incineration, and Table 4 lists those incineration parameters. The list includes PCBs.
 - During the FY2019 inspection, the inspector(s) documented the following. CHA determined that drum 81205084 was burned in place of drum 81205085 (i.e., waste tracking showed that 81205085 was incinerated, but it was really 81205084, leaving 81205085 as a zero weight drum in Building E5 and 81205084 as a missing drum). There was no incineration chemistry for 81205084, in violation of Section 3.0 of the WAP.
 - ii. During the FY2019 inspection, the inspector(s) documented the following. Aragonite did not include PCBs in any of their analyses and calculations when developing the incineration chemistries for the waste categories/DOT hazard class combinations of wastes that cannot be sampled or analyzed.
 - iii. During the FY2019 inspection, the inspector(s) documented the following. Item 82337290 was a PCB transformer. It was shipped to CHA as "polychlorinated biphenyls, liquid" and was characterized as debris. The PCB concentration was not measured and was assigned a value of zero PCBs

- 27. Factual details supporting Finding 32:
 - a. R315-262-15 UAC specifies the requirements for satellite accumulation areas for generators. R315-262-15(a)(5)(i) and (ii) UAC require that CHA mark or label containers of hazardous waste in satellite accumulation areas with the words "hazardous waste" and an indication of the hazards of the contents.
 - i. During the FY2019 inspection, the inspector(s) documented the following. CHA operates satellite accumulation areas in the laboratories. A container in the satellite accumulation area in the metals instrument lab was not properly labeled.
- 28. Factual details supporting Finding 33:
 - a. R315-262-17 UAC allows generators to accumulate hazardous waste in containers provided the waste remain on site for no more than 90 days; and the containers always are closed, except when it is necessary to add or remove waste.
 - i. On June 18, 2019, (in a letter dated June 13, 2019 (DSHW-2019-006022)) CHA notified the Director that on June 12, 2019, the facility discovered that it held two rolloffs of site-generated hazardous waste longer than 90 days.
 - ii. On August 20, 2019, (in a letter dated August 16, 2019 (DSHW-2019-009512)) CHA notified the Director that on August 13, 2019, the facility discovered that it held a rolloff of site-generated hazardous waste longer than 90 days.
 - iii. During the FY2019 inspection, the inspector(s) documented the following. Holes/punctures were observed in the tarps/covers on eight rolloff boxes containing hazardous waste residue from the incinerator.
 - iv. During the FY2019 inspection, the inspector(s) documented the following. The tarp was not fully covering rolloff box AGA-12-016, and hazardous waste residues were present on the top surfaces of the exposed corner.
- 29. Factual details supporting Findings, paragraph 34:
 - a. R315-268-3(c) UAC prohibits the combustion of wastes with the codes listed in Appendix XI of R315-268 UAC, including the waste code D009, toxicity characteristic for mercury.
 - i. On November 9, 2018, (in a letter dated November 8, 2018 (DSHW-2018-010921)) CHA notified the Director that on November 1, 2018, the facility discovered that it had inadvertently incinerated a drum containing mercuric oxide and mercuric chloride. It carried the D009 waste code.
 - ii. On September 3, 2019, (in a letter dated August 28, 2019 (DSHW-2019-010441)) CHA notified the Director that on August 27, 2019, the facility discovered that it had inadvertently incinerated a drum containing mercuric chloride. It carried the D009 waste code

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