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**U.S. EPA REGION 4
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

In the Matter of:

AES Asset Acquisition Corporation d/b/a Clean
Earth of Calvert City
1689 Shar Cal Road
Calvert City, Kentucky 42029
EPA ID No.: KYD985073196

Respondent.

Docket No. **RCRA-04-2023-2109(b)**

Proceeding Under Section 3008(a) of the
Resource Conservation and Recovery Act,
42 U.S.C. § 6928(a)

CONSENT AGREEMENT

I. NATURE OF ACTION

1. This is an administrative penalty assessment proceeding brought under Section 3008(a) of the Resource Conservation and Recovery Act (RCRA or the Act), 42 U.S.C. § 6928(a), and Sections 22.13(b) and 22.18 of the *Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation/Termination or Suspension of Permits* (Consolidated Rules), as codified at Title 40 of the Code of Federal Regulations (C.F.R.), Part 22.
2. This Consent Agreement and the attached Final Order shall collectively be referred to as the CAFO.
3. Having found that settlement is consistent with the provisions and objectives of the Act and applicable regulations, the Parties have agreed to settle this action pursuant to 40 C.F.R. § 22.18 and consent to the entry of this CAFO without the Respondent's admission of violation or adjudication of any issues of law or fact herein.

II. PARTIES

4. Complainant is the Director, Enforcement and Compliance Assurance Division, United States Environmental Protection Agency (EPA) Region 4, who has been delegated the authority on behalf of the Administrator of the EPA to enter into this CAFO pursuant to 40 C.F.R. Part 22 and Section 3008(a) of the Act.

5. The Respondent is AES Asset Acquisition Corporation doing business as (d/b/a) Clean Earth of Calvert City, a corporation doing business in the Commonwealth of Kentucky. This proceeding pertains to the Respondent's facility located at 1689 Shar Cal Road, Calvert City, Kentucky 42029 (Facility).

III. GOVERNING LAW

6. Pursuant to Section 3006(b) of RCRA, 42 U.S.C. § 6926(b), the Commonwealth of Kentucky (State) has received final authorization to implement a hazardous waste program in lieu of the federal program set forth in RCRA. The requirements of the authorized State program are found at Kentucky Revised Statutes (KRS) Chapter 224, Subchapter 224.46, and Title 401 of the Kentucky Administrative Regulations (KAR), Chapter 39.
7. Pursuant to Section 3006(g) of RCRA, 42 U.S.C. § 6926(g), the requirements established by the Hazardous and Solid Waste Amendments of 1984 (HSWA), Pub. L. 98-616, are immediately effective in all states regardless of their authorization status and are implemented by the EPA until a state is granted final authorization with respect to those requirements. The State has received final authorization for certain portions of HSWA, including those recited herein.
8. Although the EPA has granted the State authority to enforce its own hazardous waste program, the EPA retains jurisdiction and authority to initiate an independent enforcement action pursuant to Section 3008(a)(2) of RCRA, 42 U.S.C. § 6928(a)(2). This authority is exercised by the EPA in the manner set forth in the Memorandum of Agreement between the EPA and the State.
9. As the State's authorized hazardous waste program operates in lieu of the federal RCRA program, the citations for the violations of those authorized provisions alleged herein will be to the authorized State program; however, for ease of reference, the federal citations will follow in brackets.
10. Pursuant to Section 3008(a)(2) of RCRA, 42 U.S.C. § 6928(a)(2), Complainant has given notice of this action to the State before issuance of this CAFO.
11. KRS § 224.46-510(1) [Section 3002(a) of RCRA, 42 U.S.C. § 6922(a)], requires the promulgation of standards applicable to generators of hazardous waste. The implementing regulations for these standards are found at 401 KAR 39:080, Section 1(1) [40 C.F.R. Part 262].
12. KRS § 224.46-520 [Section 3005 of RCRA, 42 U.S.C. § 6925], sets forth the requirement that a facility treating, storing, or disposing of hazardous waste must have a permit or interim status. The implementing regulations for this requirement are found at 401 KAR 39:090, Section 1 (permitted) and 401 KAR 39:090, Section 2(1) (interim status) [40 C.F.R. Parts 264 (permitted) and 265 (interim status)].
13. Pursuant to 401 KAR 39:060, Section 3(1) [40 C.F.R. § 261.2], a "solid waste" is any discarded material that is not otherwise excluded from the regulations. A discarded material includes any material that is abandoned by being stored in lieu of being disposed.

14. Pursuant to 401 KAR 39:060, Section 3(1) [40 C.F.R. § 261.3], a solid waste is a “hazardous waste” if it meets any of the criteria set forth in 401 KAR 39:060, Section 3(1) [40 C.F.R. § 261.3(a)(2)] and is not otherwise excluded from regulation as a hazardous waste by 401 KAR 39:060, Section 3(1) [40 C.F.R. § 261.4(b)].
15. Pursuant to 401 KAR 39:060, Section 3(1) [40 C.F.R. §§ 261.3(a)(2)(i) and 261.20], solid wastes that exhibit any of the characteristics identified in 401 KAR 39:060, Section 3(1) [40 C.F.R. §§ 261.21-24] are characteristic hazardous waste and are provided with the EPA Hazardous Waste Numbers D001 through D043.
16. Pursuant to 401 KAR 39:060, Section 3(1) [40 C.F.R. §§ 261.20 and 261.21], a solid waste that exhibits the characteristic of ignitability is a hazardous waste and is identified with the EPA Hazardous Waste Number D001.
17. Pursuant to 401 KAR 39:060, Section 3(1) [40 C.F.R. §§ 261.20 and 261.22], a solid waste that exhibits the characteristic of corrosivity is a hazardous waste and is identified with the EPA Hazardous Waste Number D002.
18. Pursuant to 401 KAR 39:060, Section 3(1) [40 C.F.R. §§ 261.20 and 261.23], a solid waste that exhibits the characteristic of reactivity is a hazardous waste and is identified with the EPA Hazardous Waste Number D003.
19. Pursuant to 401 KAR 39:060, Section 3(1) [40 C.F.R. §§ 261.20 and 261.24], a solid waste that exhibits the characteristic of toxicity is a hazardous waste and is identified with the EPA Hazardous Waste Numbers D004-D043, which correspond to the toxic contaminant causing it to be hazardous.
20. Pursuant to 401 KAR 39:060, Section 3(1) [40 C.F.R. §§ 261.20 and 261.24], a solid waste that exhibits the characteristic of toxicity is a hazardous waste and is identified with the EPA Hazardous Waste Number associated with the toxic contaminant causing it to be hazardous. Pursuant to 401 KAR 39:060, Section 3(1) [40 C.F.R. §261.24], a solid waste that exhibits the characteristic of toxicity for Barium is identified with the EPA Hazardous Waste Number D005.
21. Pursuant to 401 KAR 39:060, Section 3(1) [40 C.F.R. §§ 261.20 and 261.24], a solid waste that exhibits the characteristic of toxicity is a hazardous waste and is identified with the EPA Hazardous Waste Number associated with the toxic contaminant causing it to be hazardous. Pursuant to 401 KAR 39:060, Section 3(1) [40 C.F.R. §261.24], a solid waste that exhibits the characteristic of toxicity for Cadmium is identified with the EPA Hazardous Waste Number D006.
22. Pursuant to 401 KAR 39:060, Section 3(1) [40 C.F.R. §§ 261.20 and 261.24], a solid waste that exhibits the characteristic of toxicity is a hazardous waste and is identified with the EPA Hazardous Waste Number associated with the toxic contaminant causing it to be hazardous. Pursuant to 401 KAR 39:060, Section 3(1) [40 C.F.R. § 261.24], a solid waste that exhibits the characteristic of toxicity for Chromium is identified with the EPA Hazardous Waste Number D007.

23. Pursuant to 401 KAR 39:060, Section 3(1) [40 C.F.R. §§ 261.20 and 261.24], a solid waste that exhibits the characteristic of toxicity is a hazardous waste and is identified with the EPA Hazardous Waste Number associated with the toxic contaminant causing it to be hazardous. Pursuant to 401 KAR 39:060, Section 3(1) [40 C.F.R. §261.24], a solid waste that exhibits the characteristic of toxicity for Lead is identified with the EPA Hazardous Waste Number D008.
24. Pursuant to 401 KAR 39:060, Section 3(1) [40 C.F.R. §§ 261.20 and 261.24], a solid waste that exhibits the characteristic of toxicity is a hazardous waste and is identified with the EPA Hazardous Waste Number associated with the toxic contaminant causing it to be hazardous. Pursuant to 401 KAR 39:060, Section 3(1) [40 C.F.R. §261.24], a solid waste that exhibits the characteristic of toxicity for Selenium is identified with the EPA Hazardous Waste Number D010.
25. Pursuant to 401 KAR 39:005, Section 1(33) [40 C.F.R. § 260.10], a “generator” is defined as any person, by site, whose act or process produces hazardous waste identified or listed in 401 KAR 39:060, Section 3(1) [40 C.F.R. Part 261], or whose act first causes a hazardous waste to become subject to regulation.
26. Pursuant to 401 KAR 39:005, Section 1 [40 C.F.R. § 260.10], a Large Quantity Generator (LQG) of hazardous waste is a generator who generates greater than or equal to 1,000 kilograms (2,200 pounds) of non-acute hazardous waste in a calendar month.
27. Pursuant to 401 KAR 39:005, Section 1(28) [40 C.F.R. § 260.10], a “facility” includes all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste.
28. Pursuant to 401 KAR 39:005, Section 1(53) [40 C.F.R. § 260.10], a “person” includes a corporation.
29. Pursuant to 401 KAR 39:005, Section 1(51) [40 C.F.R. § 260.10], an “owner” is the person who owns a facility or part of a facility.
30. Pursuant to 401 KAR 39:005, Section 1(50) [40 C.F.R. § 260.10], an “operator” is the person responsible for the overall operation of a facility.
31. Pursuant to 401 KAR 39:005, Section 1(68) [40 C.F.R. § 260.10], "storage" means the containment of wastes, either on a temporary basis or for a period of years, in such a manner as not to constitute disposal of such wastes.
32. Pursuant to 401 KAR 39:005, Section 1(14) [40 C.F.R. § 260.10], a “container” means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.
33. Pursuant to 401 KAR 39:005, Section 1 [40 C.F.R. § 260.10], a “tank” is a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support.

34. Pursuant to 401 KAR 39:005, Section 1 [40 C.F.R. § 260.10], a “tank system” is a hazardous waste storage or treatment tank and its associated ancillary equipment and containment system.
35. Pursuant to 401 KAR 39:005, Section 1 [40 C.F.R. § 260.10], “treatment” means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.
36. Pursuant to 401 KAR 39:080, Section 3(1) [40 C.F.R. § 273.9], a “universal waste handler” is a generator of universal waste; or the owner or operator of a facility that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility or to a foreign destination.
37. Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.80], the requirements of 401 KAR 39:080, Section 1(1) [40 C.F.R. Part 262, Subpart H] apply to the transboundary movements of hazardous wastes.
38. Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.81], “receiving facility” means a U.S. facility which, under RCRA and other applicable domestic laws, is operating or is authorized to operate to receive hazardous wastes and to perform recovery or disposal operations on them.
39. Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.81], “transboundary movement” means any movement of hazardous wastes from an area under the national jurisdiction of one country to an area under the national jurisdiction of another country.

Satellite Accumulation Area Permit Exemption

40. Pursuant to 401 KAR 39:080, Section 1(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 the point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or without having interim status, as required by KRS § 224.46-520 [Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with 401 KAR 39:080, Section 1(1) [40 C.F.R. §§ 262.16(b) or 262.17(a)], except as required by 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.15(a)(7) and (8)], provided that the generator complies with the satellite accumulation area (SAA) conditions listed in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.15(a)] (hereinafter referred to as the “SAA Permit Exemption”).
41. Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.15(a)(5)(ii)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers with an indication of the hazards of the contents.

Large Quantity Generator Permit Exemption

42. Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17], a LQG may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status, as required by KRS § 224.46-520 [Section 3005 of RCRA, 42 U.S.C. § 6925], provided that the generator complies with the conditions listed in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17] (hereinafter referred to as the "LQG Permit Exemption").
43. Pursuant to 401 KAR 39:080, Section 1(1) [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.
44. Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(5)(i)(A)-(B)], which is a condition of the LQG Permit Exemption, a generator must mark or label its containers with the words "Hazardous Waste" and an indication of the hazards of the contents.
45. Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(5)(i)(C)], which is a condition of the LQG Permit Exemption, a generator must mark or label its containers with the date upon which each period of accumulation begins clearly visible for inspection on each container.
46. Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(6)], which incorporates 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.251], and is a condition of the LQG Permit Exemption, a generator is required to maintain and operate its facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.
47. Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(6)], which incorporates 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.255], and is a condition of the LQG Permit Exemption, a generator is required to 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.
48. Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(6)], which incorporates 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.261(d)], and is a condition of the LQG Permit Exemption, a facility's contingency plan must list names and emergency telephone numbers of all persons qualified to act as emergency coordinator, and this list must be kept up to date.
49. Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(6)], which incorporates 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.261(e)], and is a condition of the LQG Permit Exemption, a facility's contingency plan must include a list of all emergency equipment at the facility where this equipment is required, and this list must be kept up to date.
50. Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(6)], which incorporates 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.262(b)], and is a condition of the LQG Permit Exemption, a generator must submit a Quick Reference Guide (QRG) of the contingency plan to the local

emergency responders identified at 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)] or, as appropriate, the Local Emergency Planning Committee.

Universal Waste

51. Pursuant to 401 KAR 39:080, Section 3(1) [40 C.F.R. § 273.9], a large quantity handler of universal waste (LQHUW) is a universal waste handler who accumulates 5,000 kilograms or more total of universal waste (e.g., batteries, pesticides, mercury-containing equipment, and lamps, calculated collectively) at any time. This designation as a LQHUW is retained through the end of the calendar year in which the 5,000-kilogram limit is met or exceeded.
52. Pursuant to 401 KAR 39:080, Section 3(1) [40 C.F.R. § 273.34(a)], a LQHUW must label or mark each universal waste battery, or container or tank in which the batteries are contained, clearly with one of the following phrases: "Universal Waste - Battery(ies)," or "Waste Battery(ies)," or "Used Battery(ies)."

Permitted Area

53. On January 5, 2020, the Kentucky Department for Environmental Protection (KDEP) issued the Respondent a hazardous waste management permit for the storage and treatment of hazardous waste, Permit # KYD985073196 (RCRA Permit or Permit).
54. Pursuant to Part I of the Permit, the Permittee must comply with all terms and conditions of the Permit.
55. Pursuant to Condition III.A.1 of the Permit, the Permittee is issued the Permit for treatment and storage of hazardous waste at the Facility, as required by 401 KAR 39:090, Section 1 [40 C.F.R. § 264.1].
56. Pursuant to Condition III.A.2.1 of the Permit, the Permittee shall only store hazardous waste in the two (2) container storage areas (CSAs) encompassing all of Building 2 and all of Building 3, and six (6) 15,000 gallons aboveground permitted storage tanks (Tank Farm).
57. Pursuant to Condition III.A.3 of the Permit, the Permittee shall not store or treat more than 322,520 gallons of waste in the two (2) CSAs (Building 2 and Building 3).
58. Pursuant to Condition III.B.3 of the Permit, Security, the Permittee shall comply with the requirements set forth under 401 KAR 39:090, Section 1 [40 C.F.R. § 264.14].
59. Pursuant to Condition III.B.3.5 of the Permit, the Permittee shall maintain warning signs at each entrance to the permitted areas, on the perimeter fencing, and on each face of the hazardous waste structure. The warning signs are to be legible from a distance of at least twenty-five (25) feet and read "DANGER OFF LIMITS TO UNAUTHORIZED PERSONNEL" or its equivalent.
60. Pursuant to Condition III.C.1 of the Permit, Design and Operation of Facility, the Permittee shall construct, maintain, equip and operate the Facility in a manner to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste

constituents to air, soil, or surface water which could threaten human health, or the environment, as required by 401 KAR 39:090, Section 1 [40 C.F.R. § 264.31].

61. Pursuant to Condition III.D.3 of the Permit, Copies of the contingency plan, which incorporates 401 KAR 39:090, Section 1 [40 C.F.R. § 264.53], a copy of the contingency plan and all revisions to the plan must be maintained at the Facility and submitted to all local police divisions, fire divisions, hospitals, as well as State and local emergency response teams that may be called upon to provide emergency services.
62. Pursuant to Condition III.D.4 of the Permit, Amendment of contingency plan, the Permittee shall review at least annually and amend the plan immediately, if necessary, as required by 401 KAR 39:090, Section 1 [40 C.F.R. § 264.54].
63. Pursuant to Condition III.K.5 of the Permit, Condition of Containers, the Permittee shall comply with all requirements set forth under 401 KAR 39:090, Section 1 [40 C.F.R. § 264.171], to ensure that all hazardous waste containers are in good condition. If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects), the Permittee shall transfer the hazardous waste to a container that is in good condition or otherwise manage the waste in compliance with the conditions of the Permit.
64. Pursuant to the Condition III.K.7 of the Permit, Management of Containers, the Permittee shall manage and inspect containers in accordance with 401 KAR 39:090, Section 1 [40 C.F.R. §§ 264.173 and 264.174] and not stack containers more than two (2) high. Only stable containers and containers with no physical damage may be stacked.
65. Pursuant to Condition III.L.7.4 of the Permit, the Permittee shall manage the secondary containment system for the tank systems in accordance with the Permit, and 401 KAR 39:090, Section 1 [40 C.F.R. § 264.193], and maintain an impervious coating which is free of cracks, gaps, or other deterioration on all containment system surfaces which may be exposed to hazardous waste or hazardous constituents (or releases of hazardous constituents).
66. Pursuant to Condition III.L.9.4 of the Permit, the Permittee, at a minimum, shall inspect components of the tank system at least once each day in accordance with the Permit conditions in Condition III.L.9.4.1 – 3 and 401 KAR 39:090, Section 1 [40 C.F.R. § 264.195].
67. Pursuant to Condition III.M.8 of the Permit, Inspections, the Permittee shall maintain inspection forms in accordance with the requirements of 401 KAR 39:090, Section 1 [40 C.F.R. § 264.15]. Pursuant to 401 KAR 39:090, Section 1 [40 C.F.R. § 264.15(d)], the owner or operator must record inspections in an inspection log or summary. The owner or operator must keep these records for at least three (3) 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 taken.
68. Pursuant to Condition III.Q.1.1 of the Permit, for incoming manifested shipments of hazardous waste that have reached the Permittee's Facility, the Permittee shall comply with Conditions III.Q.1.1.1 and III.Q.1.1.2 of the Permit.

69. Pursuant to Condition III.Q.1.1.1 of the Permit, the Permittee shall unload all incoming manifested shipments of hazardous waste within twenty-four (24) hours after the waste has reached the Facility and store them in the permitted storage area(s).
70. Pursuant to Condition III.Q.2 of the Permit, Transfer Facility, the Permittee shall designate an area inside the Facility's fence line to be a 10-day transfer facility.
71. Pursuant to Condition III.Q.2.1.1 of the Permit, for incoming manifested shipments of hazardous waste that have reached the Permittee's Facility and the Facility is the final destination for the hazardous waste shipments: 1. The Permittee must not store the hazardous waste at the transfer facility; and 2. The Permittee shall comply with Permit Condition III.Q.1.1.
72. Pursuant to Condition III.Q.2.1.2 of the Permit, if the Permittee is not the final destination of the hazardous waste: 1. The Permittee is allowed to store the hazardous waste at the transfer facility up to 10 days; 2. The Permittee shall clearly record the number of days the hazardous waste is stored at the transfer facility; 3. The Permittee shall inspect on a daily basis the transportation vehicle and the surrounding media the vehicle is located on for any hazardous waste spill or release; 4. If there is a spill or release, the Permittee shall immediately remove or clean the contaminated media and shall dispose of the contaminated media as well as the contaminated equipment used accordingly; and 5. If the contaminated media is unable to be properly removed or cleaned, the Permittee shall comply with the applicable requirements in 401 KAR 39:090, Section 1 [40 C.F.R. Part 264, Subparts F, G and H].
73. Pursuant to Condition VI.A of the Permit, General Restrictions, the Permittee shall maintain compliance with the requirements of the Land Disposal Restrictions in 401 KAR 39:060 [40 C.F.R. Part 268]. Pursuant to 401 KAR 39:060, Section 4 [40 C.F.R. § 268.50(a)(2)(i)], an owner/operator of a hazardous waste treatment, storage, or disposal facility that stores hazardous waste shall ensure that each container is clearly marked to identify its contents and with: (A) The words "Hazardous Waste"; (B) The applicable the EPA hazardous waste number(s) in 401 KAR 39:060, Section 3(1) [40 C.F.R. Part 261, Subparts C and D]; (C) An indication of the hazards of the contents; and (D) The date each period of accumulation begins.

Imported Hazardous Waste

74. Pursuant to Condition III.E.1 of the Permit, Use of the Manifest, the Permittee shall comply with the manifest requirements of 401 K.A.R. 39:090, Section 1 [40 C.F.R. § 264.71]. Pursuant to 401 K.A.R. 39:090, Section 1 [40 C.F.R. § 264.71(a)(3)], the owner or operator of a facility receiving hazardous waste subject to 401 KAR 39:080, Section 1(1) [40 C.F.R. Part 262, Subpart H] from a foreign source must: additionally list the relevant consent number from consent documentation supplied by the EPA to the facility for each waste listed on the manifest.

IV. FINDINGS OF FACTS

75. The Respondent is AES Asset Acquisition Corporation d/b/a Clean Earth of Calvert City in Calvert City, Kentucky.

76. The Respondent is a RCRA permitted hazardous waste treatment and storage facility.
77. On January 5, 2020, KDEP issued the Respondent its RCRA Permit authorizing the Respondent to store and treat hazardous wastes from off-site facilities.
78. Pursuant to its RCRA Permit, the Respondent is allowed to treat and store, among others, all hazardous waste with D-codes.
79. The Respondent also operates a hazardous waste transfer facility, which is located at the Facility and included in the Permit.
80. The Respondent is a generator of 1,000 kilograms or greater of hazardous waste in a calendar month and is therefore a LQG of hazardous waste.
81. The Respondent notified of its LQG status on February 28, 2022.
82. The Respondent accumulates more than 5,000 kilograms of universal waste and is therefore a LQHUW.
83. On November 29 and 30, 2022, the EPA and KDEP conducted a RCRA Compliance Evaluation Inspection (CEI) at the Respondent's Facility.
84. On February 10, 2023, the EPA emailed the Respondent an Opportunity to Show Cause letter and a CEI Report documenting its observations from the CEI.

Satellite Accumulation Area

85. At the time of the CEI, the inspectors observed that one (1) hazardous waste container was not marked with an indication of the hazards of the contents in the SAA underneath the Baghouse behind Building 3.

Large Quantity Generator Area

86. At the time of the CEI, the inspectors observed that one (1) roll-off container storing hazardous waste (EPA Hazardous Waste Numbers D001, D005, D006, D007, D008, D010), which was located outside in the central accumulation area (CAA) adjacent to Building 3, was covered with a ripped tarp and, therefore, open.
87. At the time of the CEI, the inspectors observed that one (1) roll-off container, ATS06, was holding hazardous waste (EPA Hazardous Waste Numbers D001, D005, D006, D007, D008, D010) and was not labeled with the words "Hazardous Waste" or with an indication of the hazards of the contents outside in the CAA adjacent to Building 3.
88. At the time of the CEI, the inspectors observed that seven (7) roll-off containers, SB1893, ATS07, ATS02, ATS14, SB1564, SB2420, and ATS06, were storing hazardous waste (EPA Hazardous Waste Numbers D001, D005, D006, D007, D008, D010) and were not marked with the accumulation start date outside in the CAA adjacent to Building 3.

89. At the time of the CEI, the inspectors observed that hazardous waste (EPA Hazardous Waste Numbers D001, D005, D006, D007, D008, D010) leaked from at least one (1) roll-off container, which was marked with an indication of the hazards of the contents and had a hazardous waste label on it, onto the gravel area outside in the CAA adjacent to Building 3.
90. At the time of the CEI, the inspectors observed a lack of adequate aisle space between multiple roll-off containers storing hazardous waste (EPA Hazardous Waste Numbers D001, D005, D006, D007, D008, D010) outside in the CAA adjacent to Building 3.

Contingency Plan

91. At the time of the CEI, the inspectors observed that the Facility's Contingency Plan had not been updated to include the correct emergency coordinator. Inspectors observed that an employee who no longer worked for the Respondent was still listed as the emergency coordinator.
92. At the time of the CEI, the inspectors observed that the Facility's Contingency Plan was not up-to-date to include all the locations, physical descriptions, and capabilities of the fire extinguishing systems, spill control equipment, communications and alarm systems, and decontamination equipment.
93. At the time of the CEI, the inspectors determined that a copy of the Contingency Plan and the QRG had not been submitted to the local authorities, which include the police department, fire department, hospital, State and local emergency response teams, and the Local Emergency Planning Committee.
94. At the time of the CEI, the inspectors determined that the Contingency Plan had not been amended to include changes to the emergency coordinators, additions to the emergency equipment list to include a fire truck and emergency response truck, procedures for responding to tank spills and leakage, and revisions to the QRG.

Universal Waste

95. At the time of the CEI, the inspectors observed multiple rows of containers of universal waste batteries that were wrapped in shrink wrap or duct tape in the CSA in Building 2. The universal waste batteries were not labeled.

Permitted Area

96. At the time of the CEI, the inspectors observed the following hazardous waste containers, which were storing hazardous waste not yet processed, outside of the permitted CSAs:
 - a. twelve (12) containers, 1812, 53052, 814367, 81, TR 30, TR 37, TR 41, TR 49, TR 50, TR 51, TR 53, and TR 58, located on gravel and paved areas surrounding Building 2 and Building 3;

- b. containers of consolidated liquid hazardous waste in the parking area outside and in front of Building 3; and
 - c. multiple containers of hazardous waste staged beside the three (3) non-hazardous waste tanks.
97. At the time of the CEI, the inspectors observed 401,520 gallons of hazardous waste in the CSAs and areas surrounding the CSAs at the Facility, including the hazardous waste identified in Paragraph 96, which exceeded the Respondent's permitted container storage capacity of 322,520 gallons of waste.
 98. At the time of the CEI, the inspectors observed the absence of some warning signs along the fence line surrounding Building 2 and Building 3. In addition, of the signs that were placed along the fence line, most were faded and illegible from a distance of twenty-five (25) feet.
 99. At the time of the CEI, the inspectors observed one (1) container that had corrosive hazardous waste (EPA Hazardous Waste Number D002) covering the container exterior that was not properly contained to minimize the possibility of a release in the Building 2 CSA.
 100. At the time of the CEI, the inspectors observed one (1) container of hazardous waste (EPA Hazardous Waste Numbers D001 and D005) that was severely dented in the Building 2 CSA.
 101. At the time of the CEI, the inspectors observed one (1) stack of hazardous waste containers (EPA Hazardous Waste Numbers D001 and D003) that was leaning in the Building 2 CSA.
 102. At the time of the CEI, the inspectors observed that the secondary containment for the Tank Farm was not coated with an impervious coating.
 103. At the time of the CEI, the inspectors observed that daily inspections for the hazardous waste tanks were not being conducted on weekends and holidays in the Tank Farm.
 104. At the time of the CEI, the inspectors observed that the inspection log did not include the time of the inspection and the name, signature, and initials of the employee conducting the inspection in the CSAs.
 105. At the time of the CEI, the inspectors observed, outside of Building 2, two (2) brown roll-off containers storing hazardous waste generated by a third party that had uniform hazardous waste manifest (UHWM) numbers on the labels on the containers. The inspectors determined that the container labeled with UHWM 014043969JJK was received November 4, 2022, and that the container labeled with UHWM 014048998JJK was received November 15, 2022. The UHWMs for both containers listed Clean Earth of Calvert City as the designated facility. Neither container was unloaded and stored in a CSA within twenty-four (24) hours after reaching the Facility.
 106. At the time of the CEI, the inspectors were told by Facility representatives that the Respondent had not designated an area for the transfer facility.

107. At the time of the CEI, the inspectors determined that the Respondent was not documenting inspections of the trucks and/or trailers and the media surrounding the vehicles in the undesignated area that functioned as a transfer facility.
108. At the time of the CEI, the inspectors observed multiple containers of hazardous waste that were shrink-wrapped together without individual labels in the Building 2 CSA.

Hazardous Waste from a Foreign Source

109. Following the CEI, the inspectors reviewed the EPA's notifications of hazardous waste subject to 401 KAR 39:080, Section 1(1) [40 C.F.R. 262, Subpart H]. From that review, the inspectors observed that the Respondent received and stored approximately sixteen (16) shipments of hazardous waste from Mexico, a foreign country, without listing the relevant consent number from consent documentation supplied by the EPA to the Facility for each waste listed on the manifest.

V. ALLEGED VIOLATIONS

110. The Respondent is a "person" as defined in 401 KAR 39:005, Section 1(53) [40 C.F.R. § 260.10].
111. The Respondent is the "owner" and "operator" of a "facility" located in Calvert City, Kentucky as those terms are defined in 401 KAR 39:005, Section 1(51), (50), and (28) [40 C.F.R. § 260.10].
112. The Respondent has a "tank" as defined in 401 KAR 39:005, Section 1 [40 C.F.R. § 260.10].
113. The Respondent is a "generator" of "hazardous wastes" as those terms are defined in 401 KAR 39:005, Section 1(33) [40 C.F.R. § 260.10] and 401 KAR 39:060, Section 3(1) [40 C.F.R. § 261.3].
114. The Respondent generates, treats, and stores wastes that are "solid wastes" and "hazardous wastes" as defined in 401 KAR 39:060, Section 3(1) [40 C.F.R. §§ 261.2 and 261.3].
115. The Respondent is a LQHUW as defined in 401 KAR 39:080, Section 3(1) [40 C.F.R. § 273.9].
116. The Respondent is a "receiving facility" that accepts hazardous waste that has arrived in the United States through "transboundary movement" as defined in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.81].

Satellite Accumulation Area

117. The Respondent failed to label one (1) hazardous waste container with an indication of the hazards of the contents in the SAA underneath the Baghouse behind Building 3. The EPA therefore alleges that the Respondent violated KRS § 224.46-520 [Section 3005 of RCRA, 42 U.S.C. § 6925] by storing hazardous waste without a permit or interim status, because the Respondent failed to comply with the marking and labeling requirement in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.15(a)(5)(ii)], which is a condition of the SAA Permit Exemption.

Large Quantity Generator Area

118. The Respondent failed to close one (1) roll-off container storing hazardous waste outside in the CAA adjacent to Building 3. The EPA therefore alleges that the Respondent violated KRS § 224.46-520 [Section 3005 of RCRA, 42 U.S.C. § 6925] by storing hazardous waste without a permit or interim status, because the Respondent failed to comply with a container management requirement in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(1)(iv)(A)], which is a condition of the LQG Permit Exemption.
119. The Respondent failed to label one (1) roll-off container, ATS06, storing hazardous waste with the words "Hazardous Waste" and with an indication of the hazards of the contents outside in the CAA adjacent to Building 3. The EPA therefore alleges that the Respondent violated KRS § 224.46-520 [Section 3005 of RCRA, 42 U.S.C. § 6925] by storing hazardous waste without a permit or interim status, because the Respondent failed to comply with the marking and labeling requirements in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(5)(i)(A)-(B)], which are conditions of the LQG Permit Exemption.
120. The Respondent failed to label seven (7) roll-off containers (SB1893, ATS07, ATS02, ATS14, SB1564, SB2420, and ATS06) storing hazardous waste with the accumulation start date outside in the CAA adjacent to Building 3. The EPA therefore alleges that the Respondent violated KRS § 224.46-520 [Section 3005 of RCRA, 42 U.S.C. § 6925] by storing hazardous waste without a permit or interim status, because the Respondent failed to comply with the marking and labeling requirements in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(5)(i)(C)], which is a condition of the LQG Permit Exemption.
121. The Respondent failed to clean up hazardous waste that leaked from roll-off containers onto the gravel area outside in the CAA adjacent to Building 3. The EPA therefore alleges that the Respondent violated KRS § 224.46-520 [Section 3005 of RCRA, 42 U.S.C. § 6925] by storing hazardous waste without a permit or interim status, because the Respondent failed to meet a condition of the LQG Permit Exemption set forth in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(6)], by not complying with the maintenance and operation requirements in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.251].
122. The Respondent failed to maintain adequate aisle space between roll-off containers storing hazardous waste outside in the CAA adjacent to Building 3. The EPA therefore alleges that the Respondent violated KRS § 224.46-520 [Section 3005 of RCRA, 42 U.S.C. § 6925] by storing hazardous waste without a permit or interim status, because the Respondent failed to meet a condition of the LQG Permit Exemption set forth in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(6)] by not complying with the aisle space requirements in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.255].

Contingency Plan

123. The Respondent failed to update its Contingency Plan to include the correct emergency coordinator and their contact information. The EPA therefore alleges that the Respondent violated KRS § 224.46-520 [Section 3005 of RCRA, 42 U.S.C. § 6925] by storing hazardous waste without a permit or interim status, because the Respondent failed to meet a condition of the LQG Permit Exemption set forth in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(6)], by

not complying with a contingency plan requirement in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.261(d)].

124. The Respondent failed to update its Contingency Plan to include a list of all the locations, physical descriptions, and capabilities of emergency equipment. The EPA therefore alleges that the Respondent violated KRS § 224.46-520 [Section 3005 of RCRA, 42 U.S.C. § 6925] by storing hazardous waste without a permit or interim status, because the Respondent failed to meet a condition of the LQG Permit Exemption set forth in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(6)], by not complying with a contingency plan requirement in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.261(e)].
125. The Respondent failed to submit a copy of the Contingency Plan and the QRG to the local authorities, including the police department, fire department, hospital, State and local emergency response teams, and the Local Emergency Planning Committee. The EPA therefore alleges that the Respondent violated Condition III.D.3 of the Permit, which incorporates 401 KAR 39:090, Section 1 [40 C.F.R. § 264.53]. The EPA also alleges that the Respondent violated KRS § 224.46-520 [Section 3005 of RCRA, 42 U.S.C. § 6925] by storing hazardous waste without a permit or interim status, because the Respondent failed to meet a condition of the LQG Permit Exemption set forth in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(6)], by not complying with a contingency plan requirement in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.262(b)].
126. The Respondent failed to amend the Contingency Plan to include changes to the emergency coordinators, additions to the emergency equipment list to include a fire truck and emergency response truck, and procedures for responding to tank spills and leakage. The EPA therefore alleges that the Respondent violated Condition III.D.4 of the Permit, which incorporates 401 KAR 39:090, Section 1 [40 C.F.R. § 264.54], by failing to amend the Contingency Plan at least annually and immediately, as necessary.

Universal Waste

127. The Respondent failed to label containers of universal waste batteries that were wrapped in shrink wrap or duct tape in the Building 2 CSA. The EPA therefore alleges that the Respondent violated 401 KAR 39:080, Section 3(1) [40 C.F.R. § 273.34(a)] by failing to label or mark each universal waste battery or container or tank in which the batteries are contained clearly with the words "Universal Waste - Battery(ies)," or "Waste Battery(ies)," or "Used Battery(ies)."

Permitted Area

128. The Respondent failed to store the following hazardous wastes in the permitted CSAs: twelve (12) roll-off containers in the gravel and paved areas surrounding Buildings 2 and 3; containers of consolidated liquid hazardous waste in the parking lot area near Building 3; and multiple containers of hazardous waste staged beside three (3) non-hazardous waste tanks. The EPA therefore alleges that the Respondent violated Condition III.A.2.1 of the Permit by not storing waste containers inside the permitted CSAs.

129. The Respondent stored 401,520 gallons of hazardous waste, an amount above the permitted container storage capacity limit. The EPA therefore alleges that the Respondent violated Condition III.A.3 of the Permit by exceeding the maximum allowable storage capacity of 322,520 gallons.
130. The Respondent failed to place warning signs along the fence line surrounding Buildings 2 and 3 and to maintain warning signs that were legible at a distance of twenty-five (25) feet. The EPA therefore alleges that the Respondent violated Condition III.B.3.5 of the Permit by failing to maintain warning signs at each entrance of the permitted area, along the perimeter fencing, and in a manner that was legible from a distance of at least twenty-five (25) feet.
131. The Respondent failed to properly contain corrosive hazardous waste that was covering the exterior of a container in the CSA in Building 2. The EPA therefore alleges that the Respondent violated Condition III.C.1 of the Permit, which incorporates 401 KAR 39:090, Section 1 [40 C.F.R. § 264.31], by failing to operate the Facility in a manner to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents.
132. The Respondent failed to transfer hazardous waste from a container that was severely dented, which was in the Building 2 CSA, into a container that was in good condition. The EPA therefore alleges that the Respondent violated Condition III.K.5 of the Permit, which incorporates 401 KAR 39:090, Section 1 [40 C.F.R. § 264.171], by failing to transfer waste stored in a container that was in poor condition to a container that is in good condition.
133. The Respondent failed to stack containers of hazardous waste in a stable manner without leaning. The EPA therefore alleges that the Respondent violated Condition III.K.7 of the Permit by failing to stack hazardous waste containers in a stable manner.
134. The Respondent did not coat the secondary containment in the Tank Farm with an impervious coating. The EPA therefore alleges that the Respondent violated Condition III.L.7.4 of the Permit, which incorporates 401 KAR 39:090, Section 1 [40 C.F.R. § 264.193], by failing to maintain an impervious coating on all containment system surfaces which may be exposed to hazardous waste or hazardous constituents (or releases of hazardous constituents).
135. The Respondent failed to conduct inspections on weekends and holidays in the Tank Farm. The EPA therefore alleges that the Respondent violated Condition III.L.9.4 of the Permit by failing to conduct daily inspections of the Tank Farm.
136. The Respondent failed to include in the inspection log, the time of the inspection, and the name, signature, and initials of the employee conducting the inspection. The EPA therefore alleges that the Respondent violated Condition III.M.8 of the Permit, which incorporates 401 KAR 39:090, Section 1 [40 C.F.R. § 264.15(d)], by failing to include the time of the inspection and the name of the employee conducting the inspection in the inspection log or summary.
137. The Respondent failed to unload two (2) brown roll-off containers of hazardous waste within twenty-four (24) hours of receipt and store them in the permitted CSAs. The EPA therefore alleges that the Respondent violated Permit Conditions III.Q.2.1.1 and III.Q.1.1.1 of the Permit

- by failing to unload all incoming manifested shipments of hazardous waste within twenty-four (24) hours after reaching the Facility and store them in the permitted CSAs.
138. The Respondent failed to designate a specific area of the Facility to be the transfer facility. The EPA therefore alleges that the Respondent violated Condition III.Q.2 of the Permit by failing to designate a 10-day transfer facility inside the Facility's fence line.
139. The Respondent was not documenting inspections of the trucks and/or trailers and the media surrounding the vehicles in the undesignated area that functioned as a transfer facility. The EPA therefore alleges that the Respondent violated Condition III.Q.2.1.2 of the Permit by failing to document inspections of the transportation vehicles and the media surrounding the vehicles in the undesignated area that functioned as a transfer facility.
140. The Respondent failed to properly label individual containers of hazardous waste that were shrink-wrapped in plastic in the Building 2 CSA. The EPA therefore alleges that the Respondent violated Condition VI.A of the Permit, which incorporates the Land Disposal Restrictions in 401 KAR 39:060, Section 4 [40 C.F.R. § 268.50(a)(2)(i)], by failing to comply with the labeling and marking requirements of wastes that are restricted from land disposal.

Hazardous Waste from a Foreign Source

141. The Respondent received and stored sixteen (16) shipments of hazardous waste from Mexico, a foreign source, without listing the relevant consent number from consent documentation. The EPA therefore alleges that the Respondent violated Condition III.E.1 of the Permit, which incorporates 401 KAR 39:090, Section 1 [40 C.F.R. § 264.71(a)(3)], by not listing the relevant consent number from consent documentation supplied by the EPA to the Facility for each waste listed on the manifests.

VI. STIPULATIONS

142. The issuance of this CAFO simultaneously commences and concludes this proceeding. 40 C.F.R. § 22.13(b).
143. For the purpose of this proceeding, as required by 40 C.F.R. § 22.18(b)(2), the Respondent:
- a. admits that the EPA has jurisdiction over the subject matter alleged in this CAFO;
 - b. neither admits nor denies the factual allegations set forth in Section IV (Findings of Facts) of this CAFO;
 - c. consents to the assessment of a civil penalty as stated below;
 - d. consents to the conditions specified in this CAFO;
 - e. waives any right to contest the allegations set forth in Section V (Alleged Violations) of this CAFO; and

f. waives its rights to appeal the Final Order accompanying this CAFO.

144. For the purpose of this proceeding, the Respondent:

- a. agrees that this CAFO states a claim upon which relief may be granted against the Respondent;
- b. acknowledges that this CAFO constitutes an enforcement action for purposes of considering the Respondent's compliance history in any subsequent enforcement actions;
- c. waives any and all remedies, claims for relief, and otherwise available rights to judicial or administrative review that the Respondent may have with respect to any issue of fact or law set forth in this CAFO, including any right of judicial review under Chapter 7 of the Administrative Procedure Act, 5 U.S.C. §§ 701-706;
- d. waives any rights it may possess at law or in equity to challenge the authority of the EPA to bring a civil action in a United States District Court to compel compliance with the CAFO, and to seek an additional penalty for such noncompliance, and agrees that federal law shall govern in any such civil action;
- e. waives any right it may have pursuant to 40 C.F.R. § 22.8 to be present during any discussions with, or to be served with and reply to, any memorandum or communication addressed to EPA officials where the purpose of such discussion, memorandum, or communication is to persuade such official to accept and issue this CAFO;
- f. waives any rights or defenses that the Respondent has or may have for this matter to be resolved in federal court, including but not limited to any right to a jury trial, and waives any right to challenge the lawfulness of the Final Order accompanying this Consent Agreement; and
- g. agrees to comply with the terms of this CAFO.

145. By executing this CAFO, the Respondent certifies to the best of its knowledge that the Respondent is currently in compliance with all relevant requirements of the authorized State program found in KRS Chapter 224, Subchapter 224.46, and Title 401 of the KAR, Chapter 39, and the Act and its implementing regulations, and that all violations alleged herein, which are neither admitted nor denied, have been corrected.

146. In accordance with 40 C.F.R. § 22.5, the individuals named in the Certificate of Service are authorized to receive service related to this proceeding and the Parties agree to receive service by electronic means.

VII. TERMS OF PAYMENT

147. The Respondent consents to the payment of a civil penalty, which was calculated in accordance with the Act, in the amount of **TWO HUNDRED TWENTY-SEVEN THOUSAND DOLLARS (\$227,000.00)**, which is to be paid within thirty (30) days of the Effective Date of this CAFO.
148. The Respondent shall pay the civil penalty and any interest, fees, and other charges due using any method, or combination of appropriate methods, as provided on the following EPA website:
<https://www.epa.gov/financial/makepayment>. For additional instructions, see:
<https://www.epa.gov/financial/additional-instructions-making-payments-epa>. In addition, the Respondent shall identify every payment with the Respondent's name and the docket number of this CAFO, Docket No. RCRA-04-2023-2109(b).
149. The Respondent shall send proof of payment, within twenty-four (24) hours of payment of the civil penalty, to:

Regional Hearing Clerk
R4_Regional_Hearing_Clerk@epa.gov

and

Kayla Acosta
Chemical Safety Land Enforcement Branch
Enforcement and Compliance Assurance Division
acosta.kayla@epa.gov

and

U.S. Environmental Protection Agency
Cincinnati Finance Center
Via electronic mail to:
CINWD_AcctsReceivable@epa.gov

150. "Proof of payment" means, as applicable, a copy of the check, confirmation of credit card or debit card payment, confirmation of wire or ACH transfer, and any other information required to demonstrate that payment has been made according to EPA requirements, in the amount due, and identified with the Respondent's name and Docket No. RCRA-04-2023-2109(b).
151. Pursuant to 31 U.S.C. § 3717, 31 C.F.R. § 901.9, and 40 C.F.R. § 13.11, if the Respondent fails to remit the civil penalty as agreed to herein, the EPA is entitled to assess interest and penalties on debts owed to the United States and a charge to cover the costs of processing and handling the delinquent claim. Accordingly, the EPA may require the Respondent to pay the following amounts on any amount overdue:

- a. Interest. Interest will begin to accrue on the civil penalty from the Effective Date of this CAFO. If the civil penalty is paid within thirty (30) days of the Effective Date of this CAFO interest is waived. However, if the civil penalty is not paid in full within thirty (30) days, interest will continue to accrue on any unpaid portion until the unpaid portion of the civil penalty and accrued interest are paid. Interest will be assessed at the rate of the United States Treasury tax and loan rate, as established by the Secretary of the Treasury, in accordance with 31 U.S.C. § 3717(a)(1), 31 C.F.R. § 901.9(b)(2), and 40 C.F.R. § 13.11(a);
- b. Non-Payment Penalty. On any portion of a civil penalty more than ninety (90) days past due, the Respondent must pay a non-payment penalty of not more than six percent (6%) per annum, which will accrue from the date the penalty payment became due and is not paid, as provided in 31 U.S.C. § 3717(e)(2) and 31 C.F.R. § 901.9(d). This non-payment penalty is in addition to charges which accrue or may accrue under subparagraphs (a) and (c) and will be assessed monthly. 40 C.F.R. § 13.11(c); and
- c. Monthly Handling Charge. The Respondent must pay a late payment handling charge to cover the administrative costs of processing and handling the delinquent claim, based on either actual or average costs incurred. 31 C.F.R. § 901.9(b) and 40 C.F.R. § 13.11(b). Administrative costs will be assessed monthly throughout the period the debt is overdue except as provided by 40 C.F.R. § 13.12.

152. In addition to what is stated in the prior Paragraph, if the Respondent fails to timely pay any portion of the penalty assessed under this CAFO, the EPA may:

- a. refer the debt to a credit reporting agency or a collection agency (*see* 40 C.F.R. §§ 13.13 and 13.14);
- b. collect the debt by administrative offset (i.e., the withholding of money payable by the United States to, or held by the United States for, a person to satisfy the debt the person owes the Government), which includes, but is not limited to, referral to the Internal Revenue Service for offset against income tax refunds (*see* 40 C.F.R. Part 13, Subparts C and H);
- c. suspend or revoke the Respondent's licenses or other privileges, or suspend or disqualify the Respondent from doing business with the EPA or engaging in programs the EPA sponsors or funds (*see* 40 C.F.R. § 13.17); and/or
- d. refer the debt to the Department of Justice as provided in 40 C.F.R. § 13.33. In any such judicial action, the validity, amount, and appropriateness of the penalty and of this CAFO shall not be subject to review.

153. Penalties paid pursuant to this CAFO shall not be deductible for purposes of federal taxes.

154. Pursuant to 26 U.S.C. § 6050X and 26 C.F.R. § 1.6050X-1, the EPA is required to send a completed Form 1098-F (“Fines, Penalties, and Other Amounts”) to the Internal Revenue Service (IRS) annually with respect to any court order and settlement agreement (including administrative settlements), that requires a payor to pay an aggregate amount that the EPA reasonably believes will be equal to, or in excess of, \$50,000 for the payor’s violation of any law or the investigation or inquiry into the payor’s potential violation of any law, including amounts paid for “restitution or remediation of property” or to come “into compliance with a law.” The EPA is further required to furnish a written statement, which provides the same information provided to the IRS, to each payor (for example, a copy of Form 1098-F). In order to provide the EPA with sufficient information to enable it to fulfill these obligations, the EPA herein requires, and the Respondent herein agrees, that:

- a. The Respondent shall complete a Form W-9 (“Request for Taxpayer Identification Number and Certification”), which is available at <https://www.irs.gov/pub/irs-pdf/fw9.pdf>;
- b. The Respondent shall therein certify that its completed Form W-9 includes the Respondent’s correct Tax Identification Number (TIN) or that the Respondent has applied and is waiting for issuance of a TIN;
- c. The Respondent shall email its completed Form W-9 to the EPA’s Cincinnati Finance Center Region 4’s contact, Jessica Henderson (Henderson.Jessica@epa.gov), on or before the date that the Respondent’s initial penalty payment is due, pursuant to Paragraph 147 of this CAFO, and the EPA recommends encrypting Form W-9 email correspondence; and
- d. In the event that the Respondent has certified in its completed Form W-9 that it has applied for a TIN and that TIN has not been issued to the Respondent by the date that its initial penalty payment is due, then the Respondent, using the same email address identified in the preceding sub-paragraph, shall further:
 1. notify the EPA’s Cincinnati Finance Center of this fact, via email, by the date that the Respondent’s initial penalty payment is due; and
 2. provide the EPA’s Cincinnati Finance Center with the Respondent’s TIN, via email, within five (5) days of the Respondent’s issuance and receipt of the TIN.

155. Failure to comply with providing Form W-9 or TIN may subject the Respondent to a penalty. See 26 U.S.C. § 6723, 26 U.S.C. § 6724(d)(3), and 26 C.F.R. § 301.6723-1.

VIII. SUPPLEMENTAL ENVIRONMENTAL PROJECT

156. In response to the alleged violations of RCRA, and the authorized State program, and in settlement of this matter, although not required by RCRA or any other federal, state, or local law, the Respondent agrees to implement a supplemental environmental project (SEP), as described below and in Appendix A.

157. The Respondent shall design, construct, and maintain a concrete secondary containment system for the roll-off/trailer storage area, which is a CAA used for staging site-generated hazardous waste for ninety (90) days or less. The new secondary containment system will collect and contain releases of hazardous waste and reduce the potential for hazardous waste or hazardous waste constituents to reach the soil, ground, or surface waters. The SEP is more specifically described in Appendix A, which is incorporated by reference.
158. The Respondent shall spend no less than **EIGHT HUNDRED FORTY SIX THOUSAND FOURTEEN DOLLARS (\$846,014.00)** on implementing the SEP. The Respondent shall include documentation of the expenditures made in connection with the SEP as part of the SEP Completion Report.
159. The Respondent shall complete the SEP within six (6) months of the Effective Date of this CAFO.
160. The SEP is consistent with applicable EPA policy and guidelines, specifically the EPA's 2015 *Update to the 1998 Supplemental Environmental Projects Policy* (March 10, 2015) (SEP Policy). The SEP advances at least one (1) of the objectives of RCRA by preventing a release of hazardous waste onto the ground. The SEP is not inconsistent with any provision of RCRA. The SEP relates to the alleged violations, and is designed to reduce:
- a. The likelihood that releases of hazardous waste will occur in the future by providing a means of capture and containment of hazardous waste prior to its release onto the ground from a spill or leak;
 - b. The adverse impact to public health and/or the environment to which the alleged violations contribute, specifically reducing the likelihood of a release of hazardous waste onto the ground, which could contaminate the groundwater and impact the nearby community; and/or
 - c. The overall risk to public health and/or the environment potentially affected by the alleged violations by preventing a release of hazardous waste.
161. The Respondent certifies the truth and accuracy of each of the following:
- a. That all cost information provided to the EPA in connection with the EPA's approval of the SEP is complete and accurate and that the Respondent in good faith estimates that the cost to implement the SEP, exclusive of costs excluded by the SEP Policy, is \$846,014.00;
 - b. That, as of the date of executing this CAFO, the Respondent is not required to perform or develop the SEP by any federal, state, or local law or regulation and is not required to perform or develop the SEP by agreement, grant, or as injunctive relief awarded in any other action in any forum;
 - c. That the SEP is not a project that the Respondent was planning or intending to construct, perform, or implement other than in settlement of the claims resolved in this CAFO;

- d. That the Respondent has not received and will not have received credit for the SEP in any other enforcement action;
 - e. That the Respondent will not receive reimbursement for any portion of the SEP from another person or entity;
 - f. That for federal income tax purposes, the Respondent agrees that it will neither capitalize into inventory or basis nor deduct any costs or expenditures incurred in performing the SEP; and
 - g. That the Respondent is not a party to any open federal financial assistance transaction that is funding or could fund the same activity as the SEP described in Appendix A.
162. Any public statement, oral or written, in print, film, or other media, made by the Respondent or a representative of the Respondent making reference to the SEP under this CAFO from the date of its execution of this CAFO shall include the following language: "This project was undertaken in connection with the settlement of an enforcement action taken by the U.S. Environmental Protection Agency for alleged violations of the federal laws."
163. SEP Reports.
- a. The Respondent shall submit a SEP Completion Report to the EPA within thirty (30) days following the completion of the SEP. The SEP Completion Report shall contain the following information, with supporting documentation:
 - i. A detailed description of the SEP as implemented;
 - ii. A description of any operating problems encountered and the solutions thereto;
 - iii. Itemized costs;
 - iv. Certification that the SEP has been fully implemented pursuant to the provisions of this CAFO; and
 - v. A description of the environmental and public health benefits resulting from implementation of the SEP (with a quantification of the benefits and pollutant reductions, if feasible).
 - b. Periodic Reports. The Respondent shall submit additional reports as required by Appendix A to the EPA in accordance with the schedule and requirements recited therein.
 - c. The Respondent agrees that failure to submit the SEP Completion Report or any Periodic Report required by subsections (a) and (b) above shall be deemed a violation of this CAFO and the Respondent shall become liable for stipulated penalties pursuant to Paragraph 165 below.

- d. The Respondent shall submit all notices and reports required by this CAFO to Kayla Acosta at acosta.kayla@epa.gov, and Ximena Vasquez at vasquez.maria-ximena@epa.gov.
- e. In itemizing its costs in the SEP Completion Report, the Respondent shall clearly identify and provide acceptable documentation for all eligible SEP costs. Where the SEP Completion Report includes costs not eligible for SEP credit, those costs must be clearly identified as such. For purposes of this Paragraph, "acceptable documentation" includes invoices, purchase orders, or other documentation that specifically identifies and itemizes the individual costs of the goods and/or services for which payment is being made. Canceled drafts do not constitute acceptable documentation unless such drafts specifically identify and itemize the individual costs of the goods and/or services for which payment is being made.

164. EPA acceptance of SEP Report.

- a. After receipt of the SEP Completion Report described in Paragraph 163 above, the EPA will, in writing to the Respondent, either:
 - i. Identify any deficiencies in the SEP Completion Report itself along with a grant of an additional thirty (30) days for the Respondent to correct any deficiencies; or
 - ii. Indicate that the EPA concludes that the project has been completed satisfactorily; or
 - iii. Determine that the project has not been completed satisfactorily and seek stipulated penalties in accordance with Paragraph 165 herein.
- b. If the EPA elects to exercise option (i) above, i.e., if the SEP Completion Report is determined to be deficient but the EPA has not yet made a final determination about the adequacy of SEP completion itself, the Respondent may object in writing to the notification of deficiency given pursuant to this paragraph within ten (10) days of receipt of such notification. The EPA and the Respondent shall have an additional thirty (30) days from the receipt by the EPA of the notification of objection to reach agreement on changes necessary to the SEP Report. If agreement cannot be reached on any such issue within this thirty (30) day period, the EPA shall provide a written statement of its decision on adequacy of the completion of the SEP to the Respondent, which decision shall be final and binding upon the Respondent.

165. Stipulated Penalties.

- a. Except as provided in subparagraphs (b) and (c) below, if the Respondent fails to satisfactorily complete the requirements regarding the SEP specified in Appendix A by the deadline in Paragraph 159, if assessed by the EPA in writing, the Respondent agrees to pay, in addition to the civil penalty in Paragraph 147, the

following per day per violation stipulated penalty for each day the Respondent is late meeting the applicable SEP requirement:

- i. \$250 per day for days 1-30;
 - ii. \$300 per day for days 31 – 60; and
 - iii. \$500 per day after 60 days.
- b. If the Respondent fails to timely submit any SEP reports, as described in Paragraph 163, in accordance with the timelines set forth in this CAFO, the Respondent agrees to the following per day stipulated penalty for each day after the report was due until the Respondent submits the report in its entirety:
- i. \$100 per day for days 1-30;
 - ii. \$150 per day for days 31 – 60; and
 - iii. \$300 per day after 60 days.
- c. If the Respondent does not satisfactorily complete the SEP, including spending the minimum amount on the SEP set forth in Paragraph 158 above, the Respondent shall pay a stipulated penalty to the United States in the amount of **NINE HUNDRED THIRTY THOUSAND SIX HUNDRED DOLLARS (\$930,600.00)**. “Satisfactory completion” of the SEP is defined as the Respondent spending no less than \$846,014 to design, construct, and maintain a concrete secondary containment system for the roll-off/trailer storage area, which is a CAA used for staging hazardous waste for 90 days or less within six (6) months of the Effective Date of this CAFO. The determination of whether the SEP has been satisfactorily completed shall be in the sole discretion of the EPA.
- d. The EPA retains the right to waive or reduce a stipulated penalty at its sole discretion, including but not limited to the event that the Respondent satisfactorily completes all elements of the SEP but has expended less than the agreed-upon amount set forth in Paragraph 158.
- e. The Respondent shall pay stipulated penalties not more than thirty (30) days after receipt of written demand by the EPA for such penalties. The method of payment shall be in accordance with the provisions of Section VII (Terms of Payment) above. Interest and late charges shall be paid as stated in Paragraph 151.

IX. DISPUTE RESOLUTION

166. If the Respondent objects to any decision or directive of the EPA relating to the subject matter of this CAFO, the Respondent shall notify the following persons in writing of its objections, and the basis for those objections, within fifteen (15) days of receipt of the EPA’s decision or directive:

Kayla Acosta
Physical Scientist
acosta.kayla@epa.gov
(404) 562-8451

Ximena Vasquez
Associate Regional Counsel
vasquez.maria-ximena@epa.gov
(404) 562-9548

167. The EPA or its designee, and the Respondent, shall then have an additional fifteen (15) days from receipt by the EPA of the Respondent's written objections to attempt to resolve the dispute. If an agreement is reached between the EPA and the Respondent, the agreement shall be reduced to writing and signed by the Parties and, upon the approval of the Regional Judicial Officer, incorporated by reference into this CAFO.
168. If no agreement is reached between the EPA and the Respondent within that time period, the dispute shall be submitted to the Director of the Enforcement and Compliance Assurance Division (Division Director) or their designee. The Division Director and the Respondent shall then have a second 15-day period to resolve the dispute. If an agreement is reached between the Division Director and the Respondent, the resolution shall be reduced to writing and signed by the Parties and, upon approval of the Regional Judicial Officer, incorporated by reference into this CAFO. If the Division Director and the Respondent are unable to reach agreement within this second 15-day period, the Division Director shall provide a written statement of the EPA's decision to the Respondent, which, upon signature by the Respondent and approval by the Regional Judicial Officer, shall be binding upon the Respondent and incorporated by reference into the CAFO.

X. EFFECT OF CAFO

169. In accordance with 40 C.F.R. § 22.18(c), the Respondent's full compliance with this CAFO shall only resolve the Respondent's liability for federal civil penalties for the violations and facts specifically alleged above.
170. Full payment of the civil penalty, as provided in Section VII (Terms of Payment) and completion of the SEP, as provided in Section VIII (Supplemental Environmental Project), shall satisfy the requirements of this CAFO; but, shall not in any case affect the right of the EPA or the United States to pursue appropriate injunctive or other equitable relief or criminal sanctions for any violations of law. 40 C.F.R. § 22.18(c).
171. Any violation of this CAFO may result in a civil penalty for each day of continued noncompliance with the CAFO and/or the suspension or revocation of any federal or state permit issued to the violator, as provided in Section 3008(c) of the Act, 42 U.S.C § 6928(c).
172. Nothing in this CAFO shall relieve the Respondent of the duty to comply with all applicable provisions of the Act and other federal, state, or local laws or statutes, nor shall it restrict the

EPA's authority to seek compliance with any applicable laws or regulations, nor shall it be construed to be a ruling on, or determination of, any issue related to any federal, state, or local permit, except as expressly provided herein.

173. Nothing herein shall be construed to limit the power of the EPA to undertake any action against the Respondent or any person in response to conditions that may present an imminent and substantial endangerment as provided under the Act.
174. The terms, conditions, and compliance requirements of this CAFO may not be modified or amended except upon the written agreement of both Parties, and approval of the Regional Judicial Officer.
175. The provisions of this CAFO shall apply to and be binding upon the Respondent and its successors and assigns. The Respondent shall direct its officers, directors, employees, agents, trustees, and authorized representatives to comply with the provisions of this CAFO, as appropriate.
176. Any change in the legal status of the Respondent, or change in ownership, partnership, corporate or legal status relating to the Facility, will not in any way alter the Respondent's obligations and responsibilities under this CAFO.
177. By signing this Consent Agreement, the Respondent acknowledges that this CAFO will be available to the public and agrees that this CAFO does not contain any confidential business information or personally identifiable information.
178. By signing this Consent Agreement, the Complainant and the undersigned representative of the Respondent each certify that each person is fully authorized to execute and enter into the terms and conditions of this CAFO and has the legal capacity to bind the Party represented by that person to this CAFO.
179. By signing this Consent Agreement, both Parties agree that each Party's obligations under this CAFO constitute sufficient consideration for the other Party's obligations.
180. By signing this Consent Agreement, the Respondent certifies that the information it has supplied concerning this matter was at the time of submission, and continues to be, true, accurate, and complete for each such submission, response, and statement. The Respondent acknowledges that there are significant penalties for submitting false or misleading information, including the possibility of fines and imprisonment for knowing submission of such information, under 18 U.S.C. § 1001.
181. The EPA also reserves the right to revoke this CAFO and settlement penalty if and to the extent that the EPA finds, after signing this CAFO, that any information provided by the Respondent was materially false or inaccurate at the time such information was provided to the EPA. If such false or inaccurate material was provided, the EPA reserves the right to assess and collect any and all civil penalties for any violation described herein. The EPA shall give the Respondent

notice of its intent to revoke, which shall not be effective until received by the Respondent in writing.

182. Unless specifically stated otherwise in this CAFO, each Party shall bear its own attorney's fees, costs, and disbursements incurred in this proceeding.
183. It is the intent of the Parties that the provisions of this CAFO are severable. If any provision or authority of this CAFO or the application of this CAFO to any Party or circumstances is held by any judicial or administrative authority to be invalid or unenforceable, the application of such provisions to other Parties or circumstances and the remainder of the CAFO shall remain in force and shall not be affected thereby.

XI. EFFECTIVE DATE

184. This CAFO shall become effective after execution of the Final Order by the Regional Judicial Officer, on the date of filing with the Regional Hearing Clerk.

[Remainder of Page Intentionally Left Blank

Complainant and Respondent will Each Sign on Separate Pages.]

The foregoing Consent Agreement, *In the Matter of* AES Asset Acquisition Corporation, d/b/a Clean Earth of Calvert City, Docket No. RCRA-04-2023-2109(b), is Hereby Stipulated, Agreed, and Approved for Entry.

FOR RESPONDENT:

Melanie Frohriep

Signature

6/23/2025

Date

Printed Name: Melanie Frohriep

Title: VP Reg Affairs & Env Compliance

Address: 933 First Ave, Suite 200, King of Prussia, PA 19406

The foregoing Consent Agreement, *In the Matter of* AES Asset Acquisition Corporation, d/b/a Clean Earth of Calvert City, Docket No. RCRA-04-2023-2109(b), is Hereby Stipulated, Agreed, and Approved for Entry.

FOR COMPLAINANT:

Keriema S. Newman
Director
Enforcement and Compliance Assurance Division
U.S. Environmental Protection Agency, Region 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

In the Matter of:

AES Asset Acquisition Corporation d/b/a Clean
Earth of Calvert City
1689 Shar Cal Road
Calvert City, Kentucky 42029
EPA ID No.: KYD985073196

Respondent.

Docket No. **RCRA-04-2023-2109(b)**

Proceeding Under Section 3008(a) of the
Resource Conservation and Recovery Act,
42 U.S.C. § 6928(a)

FINAL ORDER

The Regional Judicial Officer is authorized to ratify this Consent Agreement which memorializes a settlement between Complainant and Respondent. 40 C.F.R. §§ 22.4(b) and 22.18(b)(3). The foregoing Consent Agreement is, therefore, hereby approved, ratified, and incorporated by reference into this Final Order in accordance with the *Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation/Termination or Suspension of Permits*, 40 C.F.R. Part 22.

The Respondent is hereby ORDERED to comply with all of the terms of the foregoing Consent Agreement effective immediately upon filing of this Consent Agreement and Final Order with the Regional Hearing Clerk. This Final Order disposes of this matter pursuant to 40 C.F.R. §§ 22.18 and 22.31.

BEING AGREED, IT IS SO ORDERED.

Regional Judicial Officer

CERTIFICATE OF SERVICE

I certify that the foregoing Consent Agreement and Final Order, *In the Matter of* AES Asset Acquisition Corporation, d/b/a Clean Earth of Calvert City, Docket No. RCRA-04-2023-2109(b), were filed and copies of the same were emailed to the Parties as indicated below.

Via email to all Parties at the following email addresses:

To Respondent: Melanie Frohriep
Vice President of Regulatory Affairs and Environmental Compliance
Clean Earth, Inc.
mfrohriep@cleaneearthinc.com
(313) 824-5848

To EPA: Kayla Acosta
Physical Scientist
acosta.kayla@epa.gov
(404) 562-8451

Ximena Vasquez
Associate Regional Counsel
vasquez.maria-ximena@epa.gov
(404) 562-9548

Regional Hearing Clerk
R4_Regional_Hearing_Clerk@epa.gov

Appendix A



September 04, 2024

U.S. Environmental Protection Agency

RE: Proposed RCRA Facility Improvements Supplemental Environmental Project (SEP) Scope of Work (SOW) in regard to Docket # RCRA-04-2023-2109

1. Description of Project

Pursuant to this project, the RCRA Facility Improvements SEP, Clean Earth shall, within one month of the effective date of the CAFO, submit a construction schedule and construction drawings for installing a concrete secondary containment system for the roll-off/trailer storage area.

Clean Earth shall ensure that all required permit modifications, design drawings and construction schedules are submitted to the EPA and the Kentucky Department of Environmental Protection for approval prior to commencing any contraction/construction activities.

This construction activity includes:

- Option 3 - Installation of a 25,000+ square foot concrete containment system in the roll-off/trailer storage area. This area is currently crushed stone and is permitted as a 90-day staging area. A new secondary containment system will allow for the collection and containment of any releases and eliminate the potential for the contamination to the soil, ground, and surface waters.

In response to questions posed by the Agency:

1. There is not a plan to coat the containment area, it will be comprised of 5,000 psi compressive concrete.
2. An SOP and stormwater management plan will be developed as part of our application for a new NPDES permit and will be provided to the Agency once completed.
3. The containment area will be part of the facility's inspection program and repairs will be made as identified and needed.
4. A preliminary construction schedule, cost proposal, and design drawings have been submitted to the Agency and are attached here.

This project directly correlates to multiple violations and photos (pgs. 9-11) identified by the EPA in the inspection report dated February 9, 2023. Timelines for completion of the selected project(s) will be developed once approved and the combined project is estimated to cost approximately \$846,014.

2. Standard of Care:



- The SEP shall be performed in compliance with all applicable state and federal requirements including, but not limited to, state and hazardous waste regulations.

3. Schedule:

- Clean Earth shall complete the selected SEP on the following schedule:
 - Within one month of the effective date of the CAFO, Clean Earth shall submit a detailed construction schedule for the completion of the project. The project is estimated to be completed within 6 months.
 - Clean Earth shall submit SEP progress reports in accordance with Section 4 below at quarterly intervals while the SEP is in progress. Such reports shall be submitted within 15 days after the quarter ends.
 - Within 30 days of completion of the SEP Clean Earth shall submit a SEP Completion Report containing the information as outlined in Section 5 below.

4. SEP Progress Report:

- The SEP Progress reports will contain the following information:
 - A description of the activities completed during the preceding calendar quarter including all communications with the regulatory agencies, any construction activities, any problems encountered in implementing the SEP, and costs to date for the projects;

5. SEP Completion Report:

- The SEP Completion Report shall contain the information required by Section 4 above for the period since the last quarterly progress report as well as the following:
 - Certification that Clean Earth has completed the SEP in accordance with the CAFO.

In itemizing costs in the SEP Completion Report, Clean Earth shall clearly identify and provide acceptable documentation for all eligible SEP costs. For purposes of this paragraph, “acceptable documentation” includes, without limitation, invoices, purchase orders, or other documentation that specifically identifies and itemizes the individual costs of the goods and/or services for which payment was made and an accounting of goods and services provided by Clean Earth in accordance with the SEP.

If you have any questions please call me at or contact Greg Fink (EHS Director) at (215) 822-2676.

Respectfully,

CC:

GENERAL STRUCTURAL NOTES

A. ALL WORK SHALL CONFORM TO THE FOLLOWING CODES AND STANDARDS:

B. **INTERNATIONAL BUILDING CODE, 2018 EDITION.**

C. **"SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS," AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC. AS AMENDED IN SPECIFICATIONS.**

D. **"BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-14)," AMERICAN CONCRETE INSTITUTE 2014 AND FOLLOWING REVISIONS.**

E. **"MANUAL OF STANDARD PRACTICE," REINFORCED STEEL INSTITUTE.**

F. **"STRUCTURAL WELDING CODE - STEEL (AWS D11)," AND "STRUCTURAL WELDING CODE - REINFORCED STEEL (AWS D14)," AMERICAN WELDING SOCIETY.**

G. **"DESIGN MANUAL FOR FLOOR DECKS AND ROOF DECKS," STEEL DECK INSTITUTE.**

H. **"MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7-16)," AMERICAN SOCIETY OF CIVIL ENGINEERS.**

I. **PERFORMER'S RESPONSIBILITY IS LIMITED TO THE DETAILS AND INFORMATION SHOWN ON THE DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ADEQUATE SAFETY MEASURES REQUIRED BY LOCAL CODES AS WELL AS OSHA STANDARDS FOR THE CONSTRUCTION INDUSTRY.**

THIS SHOULD INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

TEMPORARY BRACING OF STRUCTURE DURING ERECTION
SHORING TO PROTECT NEW AS WELL AS EXISTING STRUCTURES
NECESSARY SCAFFOLDING
MATERIAL HANDLING EQUIPMENT
TRUCK BRACING
FIELD WELDS

J. ALL ITEMS SHOWN ON THE DRAWINGS EITHER MET OR EXCEED THE APPROPRIATE REGULATIONS SET FORTH BY OSHA (OCCUPATIONAL SAFETY AND HEALTH STANDARDS FOR GENERAL INDUSTRY - 29 CFR PART 1910)

K. **CONTRACTOR TO VERIFY ALL FIELD DIMENSIONS CONFORMING TO THE DRAWINGS FOR RESOLUTION BEFORE PERFORMING THE WORK.**

GENERAL FOUNDATION NOTES

A. ALL FOUNDATION WORK THAT INVOLVES EXISTING STRUCTURES IN ANY WAY SHALL BE CARRIED OUT WITH UTMOST CARE. ADEQUATELY DESIGNED LATERAL SUPPORT SHALL BE PROVIDED FOR SAFETY, STABILITY, AND SERVICEABILITY OF THE STRUCTURE.

B. FOUNDATION DESIGN IS BASED UPON A BEARING CAPACITY OF 2000 PSF. FOR SHALLOW FOUNDATIONS IN ACCORDANCE WITH GEOTECHNICAL REPORT BY NEW ENGINEERING & TESTING, INC. REPORT DATED 8/15/2023. THE OWNER SHALL BE RESPONSIBLE FOR PROVIDING A QUALIFIED GEOTECHNICAL ENGINEER TO VERIFY BEARING CAPACITY AND THE RESULTS SHOULD BE SENT TO THE ENGINEER OF RECORD. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING RECORDS.

C. **STRUCTURAL FILL MATERIAL SHALL BE COMPACTED AND TESTED IN ACCORDANCE WITH SOils REPORT DESCRIBED ABOVE.**

D. **THE SOils ARE TO BE TESTED BY EITHER PROUTLING OR BY HAND AUGER BORINGS WITH PENETROMETER TESTING.**

E. **PROUTLING = PROUTLING AREA OF SLAB WITH FOUR PASSES OF A SINGLE AXLE HEAVY LOADED DUMP TRUCK. MINIMUM STATIC WEIGHT OF 20 TONS. IF THE SOils MET OR EXCEEDED THE WEIGHT OF THE TRUCK, THE AREAS ARE TO BE UNDOUBT TO A 20% AND HORIZONTAL EXISTENCE DETERMINED BY A SOils ENGINEER. UNDOUBT MATERIAL SHALL BE REPLACED WITH APPROVED FILL MATERIAL.**

F. **HAND AUGER - BORINGS ARE TO BE PERFORMED BY AN EXPERIENCED SOils ENGINEER TO DETERMINE THE STRENGTH AND MAKE-UP OF THE SOils. IF INADEQUATE SOils ARE FOUND, THESE SOils ARE TO BE UNDOUBT AND REPLACED WITH APPROVED FILL MATERIAL AS DETERMINED BY THE SOils ENGINEER.**

GENERAL CONCRETE NOTES

A. REINFORCED CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301-16. "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS," EXCEPT AS NOTED BY SUPPLEMENTAL REQUIREMENTS. THE WORK SHALL ALSO CONFORM TO ACI 318-14, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE."

B. SHOP DRAWINGS ON ALL MATERIALS SHALL BE SUBMITTED FOR REVIEW BEFORE FABRICATION. CONTRACTOR SHALL ACCEPT RESPONSIBILITY FOR DIMENSIONS, QUANTITIES AND COORDINATION OF OTHER TRADES. ALL SHOP DRAWINGS AND DETAIL SHEETS SHALL BE STAMPED, REVISIONS APPROVED AND SIGNED PRIOR TO SUBMISSION. CONTRACTOR SHALL SUBMIT A FOUR PLAN LOCATING CONSTRUCTION JOINTS ALONG WITH REBAR SHOP DRAWINGS.

C. A CONCRETE MIX DESIGN SHALL BE SUBMITTED TO THE ENGINEER FOR HIS APPROVAL PRIOR TO ANY POLAR MIX SPECIFICATIONS ARE AS FOLLOWS:

| | |
|--|---|
| 28 DAY COMPRESSIVE STRENGTH | 5000 PSI |
| MAXIMUM WATER/CEMENT RATIO | 0.45 |
| EXTENSIVE CONCRETE AIR CONTENT (AIR ENTRAINED) | 5+/-1% (2% CONFORM TO ASTM 269) |
| SLUMP | 3" MAX FOR FOOTINGS, 4" MAX FOR WALLS AND SLABS |
| CEMENT AGGREGATE | 3/4" MAX CONFORM TO ASTM C33 |
| FLASH & WATER-REPLENISHING ADJUTANTS | ASTM C618 (CLASS F) |

* FLASH SHALL BE USED ONLY WITH THE APPROVAL OF THE ENGINEER.

D. THE CONTRACTOR SHALL SUBMIT PRODUCT DATA FOR CONCRETE MIX PROPORTIONS PRIOR TO PLACING CONCRETE. THE SUBMITTAL SHALL INCLUDE THE FOLLOWING INFORMATION:

- PROPORTIONS BY WEIGHT OF ALL INGREDIENTS IN BULK
- SOLID VOLUME CALCULATION OF ALL INGREDIENTS
- AIR CONTENT
- UNIT WEIGHT
- WATER-REPLENISHING ADJUTANTS
- FINAL MIX COMPRESSIVE STRENGTHS AT 7 AND 28 DAYS

NOTES SHALL BE DESIGNED TO SHOW PROPORTIONS OF INGREDIENTS WILL PROVIDE AN AVERAGE STRENGTH AT LEAST 1,200 PSI GREATER THAN THE REQUIRED f_c UNLESS THE PROVISIONS OF ACI 318 ARE MET.

E. ABSOLUTELY NO WATER MAY BE ADDED TO THE CONCRETE AT THE JOB SITE WITHOUT THE APPROVAL OF A QUALIFIED CONCRETE TESTING TECHNOLOGIST.

PLACING CONCRETE:

- DEPOSIT CONCRETE IN FORMS IN HORIZONTAL LAYERS IN A MANNER TO AVOID INCLINED CONSTRUCTION JOINTS.
- CONCRETE IN FORMS SHALL BE PLACED IN HORIZONTAL LAYERS, NO DEEPER THAN 1'-6". IN A MANNER TO AVOID INCLINED CONSTRUCTION JOINTS. CONCRETE SHALL NOT BE DEPOSITED IN A FORM WHERE THE DROP EXCEEDS 3' WITHOUT THE USE OF A CHUTE OR OTHER APPROVED METHOD OF CONVEYANCE.
- CONSOLIDATE CONCRETE CONFORMING WITH ACI 301 AND ACI 308R, AND AS FOLLOWS:
 - WORK THE CONCRETE AROUND AND UNDER REINFORCING AND INTO CORNERS
 - PLACE NO VIBRATOR WITHIN 2 1/2" OF THE FACE OF THE FORM
 - INTERNE VIBRATION MINIMUM FREQUENCY. ADD VIBRATIONS PER MINUTE WITH AMPLITUDE TO DISRUPT CONCRETE EFFECTIVELY
 - USE OF VIBRATORS TO TRANSPORT CONCRETE IS NOT ALLOWED. NOR SHALL THEY BE ALLOWED TO DISRUPT OR BEIN REINFORCEMENT OR TIES, OR TO DISTURB PLACEMENT OF TIES HEAT INTO FORMWORK
 - USE VIBRATORS TO CONCRETE
 - VENT AND WITHDRAW VIBRATORS APPROXIMATELY EVERY 18 INCHES
 - INSERT VIBRATORS NO FURTHER THAN 3 FEET FROM THE POINT OF PLACEMENT OF CONCRETE INTO FORMS AS CONCRETE IS BEING PLACED.
 - THE CONTRACTOR SHALL KEEP AT LEAST ONE VIBRATOR IN RESERVE AT ALL TIMES.
- ALL CONSTRUCTION JOINTS SHOWN ON THE DRAWINGS SHALL BE INCORPORATED INTO THE STRUCTURE UNLESS THEIR ELIMINATION IS APPROVED BY THE STRUCTURAL ENGINEER.
- ANY ADDITIONAL CONSTRUCTION JOINTS, NECESSARY TO FACILITATE THE STRUCTURE, SHALL BE LOCATED WITH THE CONSPIRACY OF THE STRUCTURAL ENGINEER AND MAY REQUIRE ADDITIONAL REINFORCING. THESE JOINTS SHALL BE DETAIL ON THE SHOP DRAWINGS AND ALL REINFORCING SHALL PASS CONTINUOUSLY THROUGH THE JOINT.
- IN COLD WEATHER, NO FROZEN OR ICE MATERIALS SHALL BE USED. TEMPERATURE OF MATERIALS INCLUDING WARMING WATER SHALL NOT EXCEED 140°F. WHEN PLACED IN FORMS, THE CONCRETE SHALL HAVE A TEMPERATURE BETWEEN 50°F AND 85°F WORK SHALL BE IN ACCORDANCE WITH ACI 308R, "TECHNOLOGICAL PRACTICE FOR WINTER CONCRETING."
- IN HOT WEATHER, THE TEMPERATURE OF THE MIXER CONCRETE SHALL BE LESS THAN 90°F. WORK SHALL BE IN ACCORDANCE WITH ACI 308R, "TECHNOLOGICAL PRACTICE FOR HOT WEATHER CONCRETING."

D. CONTRACTOR SHALL PROVIDE ENGINEER OF RECORD A MINIMUM OF 24 HOURS NOTICE PRIOR TO ALL CONCRETE POURING AND PRIOR TO FINAL PLACEMENT OF WALL FORMS TO ALLOW VISUAL INSPECTION OF REINFORCING PLACEMENT.

CONCRETE FINISHES:

- WALLS: SMOOTH FORM
- EXTERIOR SLABS: SMOOTH FORM
- INTERIOR FLOOR SLABS: SMOOTH TROWEL (100)

C10. ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A 3/4", 45 DEGREE CHAMFER UNO.

C11. NONFUNCTIONED OR OTHERWISE DEFECTIVE SURFACES SHALL BE CUT BACK AT LEAST 1", THEN CLEANED, DAMPENED, AND THE SPORED BONDING COMPOUND APPLIED TO ALL SURFACES TO BE PATCHED. THE PATCHING MIXTURE = ONE PART CEMENT AND TWO PARTS SAND - SHALL BE PLACED AFTER THE BONDING COMPOUND HAS DRIED. PATCHED AREA SHALL BE KEPT DAMP WITH MIST SPRAY FOR 7 DAYS. BONDING COMPOUND AND PATCHING MIXTURE SHALL BE "TUG MILDLY" AND "TUGGED EASILY" /150 OF /1457 RESPECTIVELY BY DUCLO CHEMICAL OR APPROVED EQUAL.

C12. FORMWORK:

- INSTALLATION - REMOVAL OF FORMWORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ADEQUATE SHORING AND BRACING SHALL BE PROVIDED FOR ALL FORMS TO SUPPORT DEAD AND LIVE DESIGN LOADS.
- DURING CONCRETE PLACING, IF OTHER MEASUREMENT OF FORMS OR SCAFFOLDS EXCESSIVE DEFLECTION OF FORMS, OR IMPROPER CURING REQUIREMENTS SHOULD OCCUR, IMMEDIATE CORRECTIVE MEASURES SHALL BE TAKEN TO THE EXTENT NECESSARY EVEN IF PLACING OPERATIONS MUST BE STOPPED AND/OR CONCRETE ALREADY IN PLACE REMOVED FROM WITHIN THE FORMS. CORRECTIVE MEASURES SHALL INCLUDE ANY ACTIONS REQUIRED TO ENSURE THAT ACCEPTABLE LINES AND SURFACES, AS WELL AS REQUIRED DIMENSIONS AND CROSS SECTIONS ARE MAINTAINED.
- DURING AND IMMEDIATELY AFTER PLACEMENT OF CONCRETE IN FORMS, SHOWING SHALL BE TIGHTENED AND READJUSTED TO MAINTAIN GRACES AND LEVELS.
- IMMEDIATELY AFTER FORM REMOVAL, ALL DAMAGED OR IMPROPER WORK SHALL BE PATCHED AS SPECIFIED IN SECTION C11; OR, IF THE WORK IS SOBERLY DAMAGED AND STRUCTURALLY UNACCEPTABLE, IT SHALL BE REBUILT TO THE EXACT DIMENSIONS BY THE ENGINEER AT CONTRACTOR'S EXPENSE.
- FORMWORK NOT SUPPORTING WEIGHT OF CONCRETE, SUCH AS SIDES OF BEAMS, WALLS, COLUMNS AND SIMILAR PARTS OF THE WORK, MAY BE REMOVED AFTER CUMULATIVELY CURED AT NOT LESS THAN 50 PERCENT F 24 HOURS AFTER PLACING CONCRETE. REMOVAL OF FORMS IS NOT PERMITTED UNTIL THE CONCRETE HAS GAINED SUFFICIENTLY HIGH STRENGTH FOR FORM REMOVAL OPERATIONS, AND PROPERLY CURING AND PROTECTION OPERATIONS ARE MAINTAINED UNTIL CONCRETE ATTAINS AT LEAST 70% OF REQUIRED 28-DAY STRENGTH.
- NO CONCRETE ELEMENT SHALL BE PERMITTED TO DEFLECT OR ACCEPT ANY LOAD DURING FORM STRIPPING. NO BACKSTIFFING SHALL BE PERMITTED BEHIND ANY ELEMENT OR RETAINING WALL UNTIL THE CONCRETE HAS ATTAINED AT LEAST THE REQUIRED 28-DAY STRENGTH.

C13. REINFORCEMENT:

- ALL REINFORCING STEEL SHALL BE NEW BILLET STEEL, GRADE 60, AND CONFORM TO ASTM A615. ALL SPLICES SHALL BE IN ACCORDANCE WITH ACI 318 (CLASS B), WIRE FABRIC SHALL BE SMOOTH WIRE PER ASTM A181.
- REINFORCEMENT SHALL BE CLEANED, BEFORE PLACEMENT, TO REMOVE ALL DUST, OIL, RUST, MILK SCALE, GREASE, AND OTHER FOREIGN MATTERS, WHICH COULD PREVENT OR REDUCE BONDING. THE CONTRACTOR SHALL ENSURE THAT SUCH CLEANLINESS IS MAINTAINED UNTIL CONCRETE HAS BEEN PLACED.
- REINFORCEMENT SHALL BE ACCURATELY POSITIONED, AND SECURED AGAINST DISPLACEMENT, IN ACCORDANCE WITH FINAL REVISED SHOP DRAWINGS AND ACI 318.
- SPACING OF REINFORCEMENT SHALL NOT BE PERMITTED EXCEPT WHERE SHOWN ON SHOP DRAWINGS. SPLICES SHALL PROXIMATE UP TO TRANSFER THE STRESS BETWEEN BARS BY BOND.
- REINFORCEMENT SHALL BE SUPPORTED BY ACCESSORIES WHICH WILL PROVIDE THE PROTECTIVE CONCRETE COVER REQUIRED BY OSA STANDARDS. PRECAST CONCRETE BARS SHALL BE USED TO SUPPORT BARS IN FOOTINGS.
- TWO #4 DIAGONAL BARS, 2'-0" LONG, SHALL BE PLACED AT ALL RE-ENTRANT SLAB CORNERS UNLESS NOTED OTHERWISE.
- ANCHOR BOLTS & EMBEDMENTS:
 - ANCHOR BOLTS SHALL BE ASTM F1554, GRADE 55, WITH WELDABILITY SUPPLEMENT S-1, AND ARE TO BE SUPPLIED WITH NUTS AND WASHERS AS SHOWN IN THE DETAILS. THEY SHALL BE LOCATED ON CENTERS SHOWN WITH A TOLERANCE NO GREATER THAN +/- 1/8".
 - ALL ANCHOR BOLTS AND EMBEDDED STEEL SHALL BE FURNISHED AND INSTALLED BY THE CONCRETE CONTRACTOR.
 - ANCHOR BOLTS SHALL BE HIT #3-200 ANCHOR SYSTEM WITH HAS-2 INCREASED RODS BY HIT FASTENING SYSTEM OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S SPECIFICATIONS. MINIMUM EMBEDMENT SHALL BE AS SPECIFIED BY THE MANUFACTURER UNLESS NOTED OTHERWISE.
 - EXPANSION ANCHORS SHALL BE HIT #3-200 ANCHOR SYSTEM BY HIT FASTENING SYSTEM OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S SPECIFICATIONS. MINIMUM EMBEDMENT SHALL BE AS SPECIFIED BY THE MANUFACTURER UNLESS NOTED OTHERWISE.
 - CONCRETE SHALL BE INSTALLED INTO EXISTING CONCRETE SHALL BE INSTALLED USING THE HIT #3-200 SYSTEM BY HIT FASTENING SYSTEMS OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S SPECIFICATIONS. MINIMUM EMBEDMENT SHALL BE AS SPECIFIED BY THE MANUFACTURER UNLESS NOTED OTHERWISE.
 - WATERTIGHTS SHALL BE WELDED OVER TOP OF WATER STOPPING SYSTEMS. VERTICAL AND HORIZONTAL, IN REINFORCING WALLS. JOINTS SHALL BE SPLICED, NOT LAPPEL, BY A HEAT SEALING PROCESS PRESCRIBED BY THE MANUFACTURER. CRACKING WATER STOPS ARE USED, UNLESS NOTED BE PREVENTED FROM FOLDING OVER UNDER THE WEIGHT OF FRESH CONCRETE.

C15. TESTING & INSPECTION:

- THE TESTING OF CONCRETE FOR STRENGTH REQUIREMENTS AND FREQUENCY OF TESTING SHALL BE AS OUTLINED IN ACI 318, "EVALUATION AND ACCEPTANCE OF CONCRETE" AND ACI 301, "TESTING."
- THE CONTRACTOR'S BUREAU, RELATIVE TO TESTING SHALL INCLUDE THE FOLLOWING:
 - SLUMP TEST SAMPLING OF EACH TRUCK LOAD, IMMEDIATELY UPON DELIVERY TO THE JOB SITE, AND DURING ACTUAL PLACEMENT.
 - NOTIFICATION OF TESTING LABORATORY IN ADVANCE OF ALL POURS.
 - THE TESTING LABORATORY ENGAGED BY THE CONTRACTOR MUST BE IN COMPLIANCE WITH THE REQUIREMENTS OF ASTM C1306 FOR A CLASS 1 FACILITY, FULLY QUALIFIED TO PERFORM THE DUTIES AND SERVICES SET FORTH BELOW. THE REQUIREMENTS OF SUCH QUALIFICATION SHALL BE FURNISHED TO THE STRUCTURAL ENGINEER FOR HIS APPROVAL BEFORE ANY CONCRETE WORK IS STARTED.
- THE TESTING LABORATORY SHALL BE RESPONSIBLE FOR THE FOLLOWING:
 - SAMPLING READY-MIX CONCRETE, INCLUDING SLUMP TESTS (FOR TRUCK LOADS FROM WHICH COLUMNS ARE TAKEN).
 - MAKING, TRANSPORTING, STORING AND TESTING CONCRETE IN CLOSURES.
 - TESTING FOR DENSITY, CEMENT FACTOR, AND AIR CONTENT WHERE REQUIRED.
 - TESTING FOR CHLORIDE ION CONCENTRATION IN ACCORDANCE WITH ASTM C1218.
 - NOTE THAT CHLORIDE ION CONCENTRATIONS IN EXCESS OF 0.3 PERCENT FOR FORMATIONS AND 1.0 PERCENT FOR ALL OTHER CONCRETE WORK WILL NOT BE ACCEPTABLE.
 - FURNISHING WRITER REPORTS TO THE STRUCTURAL ENGINEER INSPECTING JOB CONDITIONS AND FILING A REPORT WITH THE STRUCTURAL ENGINEER STATING WHETHER MOLDING AND HANDLING OF TEST SPECIMENS MEET REQUIREMENTS OF THE CONTRACT DOCUMENTS.
 - CYLINDERS SHALL BE MADE AND TESTED IN ACCORDANCE WITH THE LATEST EDITIONS OF (1) ASTM C31 "MIXING AND CURING CONCRETE TO THE EXACT DIMENSIONS AND DIMENSIONAL STRENGTH SPECIFICATIONS IN THE FIELD," (2) ASTM C39 "METHOD OF TEST FOR COMPRESSIVE STRENGTH OF MOLDED CONCRETE CYLINDERS," (3) ASTM C172 "METHOD OF SAMPLING FRESH CONCRETE," (4) ASTM C173 "METHOD OF TEST FOR COMPRESSIVE STRENGTH OF CAST-IN-PLACE CONCRETE CYLINDERS," (5) ASTM C174 "METHOD OF TEST FOR COMPRESSIVE STRENGTH OF CONCRETE CYLINDERS SHALL BE TAKEN FOR EVERY FIFTH CUBE YARD OR ONE DAY'S PLACEMENT. TWO CYLINDERS SHALL BE BROKEN AT SEVEN DAYS AND TWO AT THIRTY-DAY DATE. ANY ADDITIONAL CYLINDERS SHALL BE SET ASIDE AS RESERVES. CONCRETE OF ALL TESTS SHALL BE TRANSPORTED CONCURRENTLY TO THE STRUCTURAL ENGINEER.
- CONCRETE TEST RESULTS SHALL MEET THE FOLLOWING REQUIREMENTS:
 - THE AVERAGE OF ALL TESTS FROM THREE CONCRETE 28-DAY STRENGTH TESTS SHALL BE EQUAL TO OR EXCEED THE SPECIFIED STRENGTH.
 - NO INDIVIDUAL STRENGTH TEST RESULT SHALL BE MORE THAN 500 PSI BELOW THE SPECIFIED STRENGTH.
 - IF LABORATORY REPORTS INDICATE THAT STRENGTH REQUIREMENTS HAVE NOT BEEN OBTAINED, THE FOLLOWING COURSE OF ACTION SHALL BE REQUIRED (AT THE CONTRACTOR'S EXPENSE):
 - PERCENTAGE OF CEMENT SHALL BE INCREASED OR PERCENTAGE OF WATER SHALL BE DECREASED IN THE MIX OR SUBSEQUENTLY TO SUPPORT ONE HALF OF THE TOTAL (28D) UNIFORM LOAD CAPACITY SHOWN IN THE MAXIMUM TOTAL UNIFORM LOAD TABLES OF THE ASC MANUAL. THE PROPER NUMBER OF BOLTS SHALL BE SELECTED FOR DOUBLE-ANGLE CONNECTION TABLES FOR ALL BOLTED AND BOLTED/WELDED SINGLE AND DOUBLE CONNECTIONS OF THE ASC MANUAL. NUTS AND COTS SHALL HAVE 2 ROWS OF BOLTS.
 - MEMBER FLOORS AND REINFORCING HAVE BEEN REDUCED IN PERFORMANCE IN FORCES OR INCREASES IN ALLOWABLE STRESSES ARE PERMITTED.

C16. CURING:

- ALL VERTICAL AND HORIZONTAL SURFACES OF STRUCTURAL CONCRETE SHALL BE CURED BY THE USE OF ONE OF THE FOLLOWING METHODS: (1) WATER PROOF SHEET MATERIAL CONFORMING WITH ASTM C1171, (2) CONTINUOUSLY MOISTENED BURLAP, (3) THE FROTHING METHOD, (4) SPRINKLING METHOD, (5) COVERING OF "T" SAND OR SIMILAR KEPT CONTINUOUSLY WET, OR (6) CONCRETE CURING COMPOUND. VERTICAL SURFACES OF STRUCTURAL CONCRETE SHALL BE CURED BY OTHER MEANS.
- CURING SHALL BE STARTED AS SOON AS THE CONCRETE HAS SET SUFFICIENTLY SO THAT FORMS (IF AS SPECIFIED HEREIN) WILL NOT BE DAMAGED BY THE OPERATIONS.
- CURING OF STRUCTURAL CONCRETE SURFACES SHALL BE STARTED IMMEDIATELY UPON REMOVAL OF FORMS.
- SURFACES NOT RECEIVING FRESH WORK SHALL HAVE CURING MAINTAINED FOR NOT LESS THAN SEVEN DAYS AFTER FORM REMOVAL.
- CONCRETE SEALER SHALL BE APPLIED IN AREAS WHERE NO OTHER COVERINGS ARE REQUIRED. SEALER SHALL BE PURE-100 SEAL 307 BY BSI OR APPROVED EQUAL. APPLICATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- WHERE A CONCRETE CURING COMPOUND IS USED, IT SHALL BE A DESIATING CURING COMPOUND PER ASTM C680. THE FUM SHALL BE CHEMICALLY BREAK DOWN IN A TWO OR FOUR YEAR PERIOD AFTER APPLICATION. ACCEPTABLE PRODUCTS INCLUDE "KUREX 90" BY THE DUCLO CHEMICAL COMPANY AND "7, & 8" BY THE L & M CONSTRUCTION COMPANY OR APPROVED EQUAL.

C17. JOINT SEALANT SHALL BE GARDOL HORIZONTAL JOINT SEALANT BY W. R. MEADOWS, INC OR APPROVED EQUAL.

C18. JOINT FILLER SHALL BE DUCLO 700 FLEXIBLE INDUSTRIAL FLOOR JOINT FILLER BY THE DUCLO CHEMICAL COMPANY. CONTRACTOR SHALL REVIEW IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND ACI 302.1R.

C19. GROUT SHALL BE CEMENT-BASED, NONSHRINKING, NONSTAINING FIVE STAR GROUT BY THE STAM PRODUCTS OR APPROVED EQUAL.

C20. EXPANSION JOINT MATERIAL SHALL BE SACRETE CONCRETE EXPANSION JOINT OR APPROVED EQUAL.

GENERAL STEEL NOTES

S1. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, MANUAL OF STEEL CONSTRUCTION, ALLOWABLE STRESS DESIGN, FOURTH EDITION (2014).

S2. UNO - UNLESS NOTED OTHERWISE.

S3. ANY DEVIATIONS FROM THE DESIGN/DETAILS SHOWN ON THE DRAWINGS MUST BE APPROVED BY PERSON.

S4. MINIMUM PLATE THICKNESS SHALL BE 5/16" UNO. MINIMUM BOLT DIAMETER SHALL BE 3/4" UNO. MINIMUM SHOP WELD SHALL BE 3/16" AND MINIMUM FIELD WELD SHALL BE 1/4" UNO.

S5. MATERIAL SHALL MEET THE FOLLOWING SPECIFICATIONS:

| | |
|---|--|
| A. STRUCTURAL STEEL CHANNELS, PLATES & ANGLES | ASTM A36 |
| B. CONNECTION BOLTS (UNO) | ASTM A325 3/4" DIA OR 5/8" DIA |
| C. WELDING ELECTRODES | ASTM A515 E70 SERIES |
| D. MILD STEEL BOLTS | ASTM A307 (HORIZONTAL CONNECTIONS UNO) |
| E. GRATING (UNO) | 1 1/4" x 3/16" x 1 1/2" GR. 304 |
| F. CHECKED/PLATE STRUCTURAL FABRIC | ASTM A135N 3/4" DIA OR 5/8" DIA |
| G. WELDED STEEL | ASTM A135N 3/4" DIA OR 5/8" DIA |
| H. HSS ROUND | ASTM A500, OR B |
| I. QUADRANT / HORIZONTAL | 5/8" DIA WITH 2 NUTS AT EACH END |
| J. STAR TIE | SEAMLESS CHANNEL, GALVANNEAL |

S6. CONNECTIONS SHALL BE AS FOLLOWS:

- GENERALLY, CONNECTIONS SHOWN ON THE DRAWINGS ARE SCHEMATIC AND ARE INTENDED TO SHOW THE RELATIONSHIP OF THE MEMBERS.
- CONNECTIONS SHALL BE "SIMPLE END" TYPE (UNO) ALL FIELD CONNECTIONS SHALL BE BOLTED AND DESIGNED AS BEARING TYPE WITH TRENDS INCLUDED IN THE SHEAR PLANE UNLESS NOTED OTHERWISE ON CONNECTION SCHEDULE. SPECIFIC BEAM REINFORCING ARE ONLY TO SUPPORT ONE HALF OF THE TOTAL (28D) UNIFORM LOAD CAPACITY SHOWN IN THE MAXIMUM TOTAL UNIFORM LOAD TABLES OF THE ASC MANUAL. THE PROPER NUMBER OF BOLTS SHALL BE SELECTED FOR DOUBLE-ANGLE CONNECTION TABLES FOR ALL BOLTED AND BOLTED/WELDED SINGLE AND DOUBLE CONNECTIONS OF THE ASC MANUAL. NUTS AND COTS SHALL HAVE 2 ROWS OF BOLTS.
- MEMBER FLOORS AND REINFORCING HAVE BEEN REDUCED IN PERFORMANCE IN FORCES OR INCREASES IN ALLOWABLE STRESSES ARE PERMITTED.
- SHOP CONNECTIONS MAY BE BOLTED OR WELDED.
- ALL ANGLE BRACING SHALL HAVE (2) 3/4" DIA HIGH STRENGTH BOLTED CONNECTIONS (OR EQUIVALENT WELDS) AT EACH END UNLESS 1,000S ARE SHOWN IN THE DETAILS.
- BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS," ALL BEARING TYPE CONNECTIONS SHALL BE INSTALLED USING SNUG TIGHT METHOD UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- SLIP CRITICAL BOLTED CONNECTIONS SHALL BE INSTALLED AND TIGHTENED USING "TURN-OF-NUT" TIGHTENING OF CALIBRATED WRENCH TIGHTENING LOW INCREASER BOLTS OR INCREASER MAY ALSO BE USED. HARDED STEEL WASHERS SHALL BE USED WITH UNO. CALIBRATED WRENCH TIGHTENING.
- PROTECTING BOLT HEADS, SHAFTS OR NUTS SHALL NOT EXTEND NOR PROHIBIT THE APPLICATION OF STRUCTURAL BRACING OR PLACEMENT OF STEEL DECK AT ITS CORRECT LOCATION AND ELEVATION.
- THE CONNECTION DESIGNER IS RESPONSIBLE FOR VERIFYING THE AXIAL CAPACITY AFTER A SECTION IS REDUCED FOR NOT HOLE. MEMBER SIZE MAY BE INCREASED OR PLATES ADDED TO MAINTAIN REQUIRED CAPACITY. THE ENGINEERING CALCULATION SHEETS FOR FABRICATION-DESIGNED CONNECTIONS SHALL BE SEALED AND SIGNED BY THE PROFESSIONAL ENGINEER WHO DESIGNS OR SUPERVISES THE DESIGN OF ALL FABRICATION-DESIGNED CONNECTIONS. THIS PROFESSIONAL ENGINEER SHALL BE LICENSED IN THE STATE WHERE THE FABRICATED MATERIAL IS TO BE ERECTED. THESE DOCUMENTS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW.
- SHOP DRAWINGS SHALL INDICATE THE TYPE OF BOLT USED IN EACH CONNECTION. ALLOWABLE VALUES FOR THE VARIOUS BOLT TYPES AND CAPACITY OF EACH CONNECTION SHALL BE PROVIDED.
- DOMESTIC FASTENERS (AMERICAN OR CANADIAN) ARE REQUIRED IN ALL STRUCTURAL STEEL WORK ON THIS PROJECT. IMPORTED FASTENERS ARE PROHIBITED.
- WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STANDARD, AWS/A5.1, LATEST EDITION.
- ALL STRUCTURAL STEEL, HORIZONTAL BOLTS, ETC. SHALL NOT BE HOT DIPPED GALVANNEAL IN ACCORDANCE WITH ASTM A153. THREADED BOLTS, FASTENERS AND WASHERS SHALL BE PER ASTM A153. REPAIR OF HOT-DIPPED GALVANNEAL WILL BE DONE USING THE SAME GALVANNEAL COMPOUND BY THE PRODUCTS CO. OR ENGINEER APPROVED EQUAL. REPAIR MATERIAL SHALL BE APPLIED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- ANY PRODUCTS SHOWN ON THE DRAWINGS REPRESENTING MINIMUM REQUIREMENTS, ANY DEVIATIONS FROM PRODUCTS SHOWN MUST BE REVIEWED BY PERSON (INCLUDING PRODUCTS INDICATED OR APPROVED EQUAL).
- SHOP FABRICATION AND ERECTION DRAWINGS SHALL BE PROVIDED BY THE STEEL FABRICATOR OR HIS AGENT IN ACCORDANCE WITH STANDARD ASC PRACTICE. THE ENGINEERING DRAWINGS, AND SPECIFICATIONS WHERE APPLICABLE.
- THE SHOP DRAWINGS SHALL BE CHECKED BY THE FABRICATOR PRIOR TO SUBMITTAL. PERSON, ANY ONES RECEIVED BY PERSON UNCHECKED ARE SUBJECT TO REJECTION AND RETURN TO THE DETAILER WITHOUT COMMENT. DRAWINGS SIGNED AS CHECKED BUT FOUND IN PERSON'S OPINION TO BE OF QUESTIONABLE ACCURACY ARE ALSO SUBJECT TO BEING RETURNED.
- SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMISSION. DRAWINGS SHALL BEAR THE CONTRACTOR'S APPROVAL STAMP. ACCEPTING RESPONSIBILITY FOR DIMENSIONS, QUANTITIES AND COORDINATION WITH THE OTHER TRADES. PERSON'S REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS TO BE CONFIRMED AND CORRECTED AT THE JOB SITE. INFORMATION THAT PERTAINS SOLELY TO THE FABRICATION PROCESS OR TO THE MEANS AND METHODS OF CONSTRUCTION.
- THE DETAILER MAY, AT HIS OPTION, USE A REPRODUCTION OF THE ENGINEERING DRAWINGS FOR THE ERECTION PLAN. HOWEVER, ALL PEEZ MARKS MUST BE CLEARLY LEGIBLE.
- UNLESS OTHERWISE SPECIFIED, A MINIMUM OF TWO SETS OF APPROVAL DRAWINGS SHALL BE SUBMITTED TO PERSON. ONE SET WILL BE USED FOR APPROVAL, PURCHASES AND MAINTAINED BY PERSON. THE OTHER SET WILL BE MAINTAINED AS APPROPRIATE AND RETURNED TO THE DETAILER STAMPED AND SIGNED.
- PERSON'S REVIEW IS FOR GENERAL CONFORMANCE WITH THE ENGINEERING DRAWINGS, SPECIFICATIONS, ETC. UNLESS OTHERWISE SPECIFIED, ALL DETAILS AND DIMENSIONS ARE THE RESPONSIBILITY OF THE DETAILER. THIS APPROVAL DOES NOT RELIEVE THE DETAILER OF THE OBLIGATION TO MEET SPECIFICATIONS AND ALL OTHER TERMS AND CONDITIONS OF THE SUBCONTRACT OR PURCHASE ORDER.
- WHEN ALL COMMENTS HAVE BEEN INCORPORATED ON THE SHOP DRAWINGS, THE DETAILER SHALL PROVIDE A SET OF CERTIFIED PRINTS TO PERSON AND THE CONTRACTOR IN ADDITION TO FIELD USE PRINTS.
- SPLICING OF STEEL MEMBERS, UNLESS SHOWN ON THE DRAWINGS, IS PROHIBITED WITHOUT WRITER REVIEW OF THE STRUCTURAL ENGINEER.
- NO CHANGES IN SIZE OR POSITION OF ANY STRUCTURAL ELEMENT, HOLES, SLOTS, CUTS, ETC. SHALL BE MADE UNLESS DETAILER IS NOTIFIED AS A PROPOSED CHANGE IN THE SHOP DRAWINGS AND REVIEWED BY THE STRUCTURAL ENGINEER.
- NO FIRM BOLTS OR WELDING SHALL BE PERFORMED UNTIL AS MUCH OF THE STRUCTURE AS SHALL BE STIFFENED THROUGH HAS BEEN PROBABLY ALIGNED.
- DOUBLE ANGLES SHALL HAVE INTERMEDIATE FILLETS PROVIDED IN ACCORDANCE WITH BOLT MEMBER REQUIREMENTS OF THE ASC SPECIFICATION.
- THREADED COLD BENDING WITH CHANNELS UP.
- DO NOT USE GAS CUTTING TORCHES IN THE FIELD FOR CORRECTING FABRICATION ERRORS IN PRIMARY STRUCTURAL FRAMING.
- PARAGRAPHS 7.2 THROUGH 7.6 OF THE ASC CODE OF STANDARD PRACTICE SHALL BE SUPERSEDED AS FOLLOWS: ALL REFERENCES TO "UNO" SHALL BE SUPERSEDED WITH REFERENCES TO "CONTRACTOR."

**PRELIMINARY
NOT FOR CONSTRUCTION**

PERIGON

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ENGINEER: T. PRINGLO
 DESIGNER: T. PRINGLO
 PROJECT MANAGER: J. LARSON

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PROJECT CODE: 111285 PROJECT NAME: ROLL-OFF BOX/END DUMP STAGING

DWG. TITLE: STRUCTURAL GENERAL NOTES

DWG. NO.: S-02

REV: D



1400 BARBARA ROAD, CLAYTON CITY, TN 37029