Ohio Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

November 23, 2016

Lordstown Construction Recovery, LLC
6205 Palmyra Rd., SW
Warren, Ohio 44481

Lafarge North America, Inc.
8700 W. Bryn Mawr Ave
North Tower Suite 300
Chicago, Illinois 60631

The Standard Slag Co.
870 W. Bryn Mawr Ave
North Tower Suite 300
Chicago, Illinois 60631

Re: Lordstown Construction Recovery C&DD Facility
Director's Final Findings and Orders (DFFO)
DFFO
Construction & Demolition Debris
Trumbull County
CDDL018743

Subject: Final Findings and Orders

Dear Sir or Madam:

Transmitted herewith are the Final Findings and Orders of the Director concerning the matter indicated for Lordstown Construction Recovery C&DD Facility, Lafarge North America Inc. and The Standard Slag Co.

You are hereby notified that this action of the Director of Ohio EPA (Director) is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of $70.00 made payable to "Treasurer, State of Ohio." The Commission, in its discretion, may reduce the fee if by affidavit it is demonstrated that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
77 South High St., 17th Floor
Columbus, Ohio 43215

If you have any questions, please contact Janine Maney at (614) 644-3037.

Sincerely,

Brian Dearth, Administrative Officer 1
Division of Materials & Waste Management

Enclosure

ec: Melinda Berry, DMWM, CO
Kelly Jeter, DMWM, CO
Bruce McCoy, DMWM, CO
Terri Finfrock, Legal
Janine Maney, Legal
Martha Horvitz, Legal
Jarnal Singh, DMWM, NEDO
Brittany Schuch, DSW, CO

BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

OHIO E.P.A.
NOV 23 2016
ENTERED DIRECTOR'S JOURNAL

In the Matter of:

Lordstown Construction Recovery, LLC
6205 Palmyra Rd. SW
Warren, Ohio 44481

Lafarge North America, Inc.
8700 W. Bryn Mawr Ave
North Tower Suite 300
Chicago, Illinois, 60631

The Standard Slag Co.
8700 W. Bryn Mawr Ave
North Tower Suite 300
Chicago, Illinois, 60631

Respondents

Director's Final Findings and Orders

PREAMBLE

It is agreed by the parties hereto as follows:

I. JURISDICTION

These Director's Final Findings and Orders ("Orders") and attachments fully incorporated herein are issued to Lordstown Construction Recovery, LLC, Lafarge North America Inc., and The Standard Slag Co. ("Collectively Respondents or LCR") pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency ("Ohio EPA") under Sections 3714.12, 3734.13, 3745.01, and 6111.03 of the Ohio Revised Code ("ORC"), and the rules promulgated thereunder.

II. PARTIES BOUND

These Orders shall apply to and be binding upon Respondents and their successors in interest liable under Ohio law. No change in ownership of Respondents, the Property or of the Facility (as hereinafter defined) shall in any way alter Respondents' obligations under these Orders.

III. DEFINITIONS

Unless otherwise stated, all terms used in these Orders shall have the same meaning as defined in ORC Chapters 3734, 3714. and 6111. and the rules promulgated thereunder.

IV. FINDINGS

All of the findings necessary for the issuance of these Orders pursuant to ORC Sections 3714.12, 3734.13, 3745.01, and 6111.03 have been made and are outlined below. Nothing in the findings shall be considered to be an admission by Respondents of any matter of law or fact. The Director of Ohio EPA has determined the following findings:

1. Lordstown Construction Recovery, LLC operates a construction and demolition debris facility as that term is defined in OAC Rule 3745-400-01(G) located at 6205 Newton Falls Bailey Rd. SW, Warren, Trumbull County, Ohio 44481 (the "Facility").

2. Lordstown Construction Recovery, LLC ("Respondent Lordstown Construction") is the 2016 license "applicant" and the "operator" of the Facility as those terms are defined in OAC Rule 3745-400-01(A) and (I), and is also the current license holder for the Facility.

3. Lafarge North America Inc. ("Respondent Lafarge") is the owner of the property located at 6205 Newton Falls Bailey Rd. SW, Warren, Trumbull County, Ohio 44481, and the "owner" as that term is defined in OAC Rule 3745-400-01(EE).

4. Respondent Lafarge is the "operator" of the Facility as that term is defined in OAC Rule 3745-400-01(I), and is also the "parent corporation" of Respondent Lordstown Construction Recovery, LLC, as that term is defined in OAC Rule 3745-400-01(CC).

5. The Standard Slag Co. ("Respondent Standard Slag") is the owner of the property located at 6205 Newton Falls Bailey Rd. SW, Warren, Trumbull County, Ohio 44481, and is the "owner" as that term is defined in OAC Rule 3745-400-01(EE).

6. Respondent Lordstown Construction, Respondent Lafarge, and Respondent Standard Slag are each a "person" as that term is defined by ORC Section 3714.01(H) and OAC Rule 3745-400-01(DD).

7. The Trumbull County Health District ("Health Department") is the "licensing authority," as that term is defined in OAC Rule 3745-400-01(Y), which is on the Director's approved list in accordance with ORC Section 3714.09.

8. On September 5, 2002 the Trumbull County Health District issued the "Initial license," as that term is defined by OAC Rule 3745-400-01(U), for the Lordstown Construction Recovery construction and demolition debris facility ("the Facility").

9. The Facility is a currently licensed "construction and demolition debris facility" as that term is defined by OAC Rule 3745-400-01(G) and is authorized to accept "construction and demolition debris" as that term is defined by ORC Section 3714.01(C) and OAC Rule 3745-400-01(F).

OAC Rules 3745-400-07, 3745-400-09, and 3745-400-11 Findings

10. OAC Rule 3745-400-07 and OAC Rule 3745-400-07*as eff. Aug. 31, 2002* provide in relevant part:

> (A) The owner or operator shall submit the facility design plan required by this rule as part of the license application. The facility design plan shall contain information in accordance with paragraphs (C) to (E) of this rule [...].
>
> (B) The owner or operator shall comply with all applicable construction specifications and performance standards required in this rule.
>
> [Comment: The owner or operator need not reiterate all the construction specifications and performance standards that are in this rule in the facility design plan. The owner or operator, in accordance with rule 3745-400-11 of the Administrative Code, is required to follow the applicable specifications as part of facility operations. If the owner or operator does not follow the specifications, a violation of rule 3745-400-11 of the Administrative Code will result.]
>
> (C) The owner or operator shall meet all the construction and performance specifications of this rule with the following exceptions, specified in (C)(1) and (C)(2). [...] [(D)...(E)...]
>
> (F) The facility construction design plan. The facility construction design plan, which shall include the liner and leachate collection system designs, shall be signed and sealed by a professional engineer registered in Ohio. Drawings, calculations and narrative shall appear on plan sheets with minimum dimensions of twenty-four inches by thirty-six inches. If narrative is necessary to explain the drawings or calculations, the narrative shall appear with the drawing or calculation on the plan sheet. The facility construction design plan shall consist of the following [in relevant part]: [...]
>
> > (4) Cross sections of the facility at an interval no greater than every three hundred feet of length and width, and clearly showing the horizontal and vertical scales used, shall show the following items on plan drawings numbered consecutively 4a, 4b, 4c, etc.: [...] (b) The top of the uppermost aquifer system, if the owner or operator meets the criteria of paragraph (C)(1)(a) of this rule or is pursuing compliance with the provisions of paragraph (F)(5)(a) of this rule. The demonstration of the thickness and hydraulic conductivity of the in situ geologic material shall be based on the borings used for the site hydrogeology investigation required by paragraph (C)(5) of rule 3745-400-09 of the

Administrative Code, shall be shown on the cross sections, and shall include the following: [...]

(5) (e) "Any permanent ground water control structures shall adequately control ground water infiltration through the use of non-mechanical means such as impermeable barriers or permeable drainage structures. However, no permanent ground-water control structures may be used to dewater an aquifer system."

11. Site characterization for employment of the recompacted soil liner requirement. OAC Rule 3745-400-09(A) and OAC Rule 3745-400-09(A), *as eff. Aug. 31, 2002* provide:

(1) A recompacted soil liner, as described in paragraph (F)(5)(a) of rule 3745-400-07 of the Administrative Code, is required for all unfilled areas in a facility except when the in situ or added geologic material separating the uppermost aquifer system from the bottom of the leachate collection system in unfilled areas meets the criteria in paragraphs (A)(2) and (A)(3) of this rule and ... was in operation or under construction on September 30, 1996...

(2) The in situ or added geologic material shall have the following:
a) A minimum thickness of five feet with a maximum permeability of 1 x 10^{-5} cm/sec.
b) A maximum permeability equivalent to two feet of soil with a permeability of 1 x 10^{-6} cm/sec. When the unfilled areas of a facility that was in operation or under construction on September 30, 1996 meet the requirements of paragraph (A)(1) of this rule and a minimum fifteen foot horizontal separation exists between existing placed debris and the limits of debris placement in unfilled areas.

(3) Added geologic material, if any, shall meet the requirements in paragraph (F)(5)(b) of rule 3745-400-07 of the Administrative Code.

12. Phases I-IV of the Facility do not meet all of the design construction specifications and performance standards required by OAC Rule 3745-400-07.

13. Respondents did not obtain an exemption pursuant to ORC 3714.04 from the requirement to install a Recompacted Soil Liner.

14. Respondents were not in operation or under construction on September 30, 1996.

15. On September 5, 2002, the Trumbull County Health District issued the initial license to Lordstown Construction Recovery for the Facility. The license application included Plan Drawing 4-D depicting a minimum 5 Feet added

Geological Material (cohesive soil) at 1 x 10^{-6} cm/sec permeability, to be placed 900 feet above sea level, depicting debris placement at no less than 905 feet above mean sea level. The design was submitted by a professional engineer, and received by Ohio EPA on September 19, 2002. Narrative 1.0 in Tab 4 states: "Five feet of added geological material shall be used to obtain a minimum of five feet of isolation distance between the uppermost aquifer system and the bottom and side slopes of the landfill."

16. During the subsurface investigation conducted by Respondents in preparation for the 2002 License Application, Respondents' engineer identified the Uppermost Aquifer System (UAS) at 900 feet above sea level, and indicated "the lowest elevation of proposed emplaced debris is 905 feet." The subsurface investigation also stated that "the proposed facility does not contain a minimum of five feet of in-situ material between the bottom limits of debris placement and the uppermost sand and gravel aquifer. Therefore, a minimum of five feet of added geologic material with a maximum permeability of 1 x 10^{-6} cm/sec will be placed on the bottom and side slopes of the landfill to provide separation between the bottom limits of debris placement and the uppermost aquifer system."

17. On April 4, 2003, Respondents submitted a report to the Health Department in which it described additional subsurface investigative work performed at the Facility and requested a modification of the landfill design.

18. Thereafter, in a letter dated April 29, 2003, the Health Department stated, "the plans as submitted have been approved by this agency. However, I am placing the following condition on the application: at the time for construction of Phase IV, additional borehole samplings will be conducted to ensure avoidance of any sandstone and bedrock. By doing so, this will ensure proper installation of liner to adequately protect the aquifer." Respondent subsequently performed borehole sampling.

19. The April 4, 2003 modified design for Phases 1-4 indicated that the "bottom grades of excavation range from 850 feet to 880 feet." Respondents modified design, submitted on April 4, 2003, states that: "The five feet of added geological material shall provide separation between the bottom limits of debris and the sand and gravel uppermost aquifer system, as required by OAC 3745-400-09(A)."

20. Respondents added geologic material on some areas of the side slopes of Phases I-IV.

21. OAC Rule 3745-400-11(B)(1) and 3745-400-11(B)(1), eff. Aug. 31, 2002 state: "The owner or operator shall conduct all operations at the facility in strict compliance with the license, any orders, and other authorizing documents issued in accordance with Chapter 3714. of the Revised Code."

22. On February 10, 2015, an Ohio EPA inspector visited the facility for a site inspection, and observed Respondents operating an underdrain dewatering system in Phases I through IV. Following that inspection, Ohio EPA continued to inspect the record and investigate Facility conditions. On March 11, 2015, an Ohio EPA inspector conducted an inspection of the Facility, and observed violations of OAC Rule 3745-400-11(Q)(1) and OAC Rule 3745-400-07(F)(5)(e) for mechanically diverting groundwater from below the Facility by use of underdrains and pump. These violations were documented in an NOV letter from Ohio EPA to Respondents dated March 26, 2015 and June 3, 2015.

23. On March 13, 2015, the Health Department conducted an inspection of the Facility, and observed violations of OAC Rule 3745-400-11(Q)(1) and OAC Rule 3745-400-07(F)(5)(e) for mechanically diverting groundwater from below the Facility by use of underdrains and pump. These violations were documented in an NOV letter from the Health Department to Respondents dated March 19, 2015.

24. On June 12, 2015, Respondent Lordstown Construction Recovery submitted to the Trumbull County Health District and Ohio EPA an underdrain Connectivity Evaluation Work Plan ("Underdrain Study") to assess the connectivity between the underdrain and the leachate collection system. Respondent Lordstown Construction Recovery indicated that it has been proceeding with the Underdrain Study and, pursuant to its June 12, 2015 letter, submitted monthly reports to Ohio EPA.

25. Ohio EPA subsequently documented the following violations in a Notice of Violation letter ("NOV") to Respondent Lordstown Construction dated October 16, 2015.

    A. Ohio Administrative Code Rule 3745-400-11(B)(1) and 3745-400-11(B)(1), eff. Aug. 31, 2002, which provides: "The owner or operator shall conduct all operations at the facility in strict compliance with the license, any orders, and other authorizing documents issued in accordance with Chapter 3714. of the Revised Code."

    B. Ohio Administrative Code Rule 3745-400-07(B) and 3745-400-07(B), eff. Aug. 31, 2002, which provides: "The owner or operator shall comply with all applicable construction specifications and performance standards required in this rule."

    C. Ohio Administrative Code Rule 3745-400-07(C) and 3745-400-07(C), eff. Aug. 31, 2002, which provides that "the owner or operator shall meet all the construction and performance specifications of this rule with the following exceptions, specified in (C)(1) and (C)(2)," specifically noting that Respondents do not meet the exceptions in (C)(1)(a)-(c).

D. Ohio Administrative Code Rule 3745-400-07(F)(5) and 3745-400-07(F)(5), eff. Aug. 31, 2002 for failing to construct a recompacted soil liner in cells 1-4 as specified in OAC Rule 3745-400-07(F)(5)(a)(i)-(v), noting that the Facility does not meet the criteria in paragraph (A)(1) of OAC 3745-400-09; and, the Facility was not in operation or under construction on September 30, 1996; therefore, the Facility does not meet any exception from the requirement to install the recompacted soil liner.

E. Ohio Administrative Code Rule 3745-400-07(F)(5)(b) and 3745-400-07(F)(5), eff. Aug. 31, 2002 for failing to construct with added geologic material used to establish isolation distances cited in OAC Rule 3745-400-09 of the Administrative Code with the specifications required by OAC Rule 3745-400-07(F)(5)(b)(i)-(iv).

F. Ohio Administrative Code Rule 3745-400-07(F)(5)(e) and 3745-400-07(F)(5)(e), eff. Aug. 31, 2002 for mechanically diverting groundwater from debris placement by use of underdrains and pumps.

G. ORC Section 3734.03 and OAC Rule 3745-400-11(F), OAC Rule 3745-400-11(F)(2), and OAC Rule 3745-400-11(F)(3)(a) for disposal of solid waste at the facility.

H. Ohio Administrative Code Rule 3745-400-11(B)(16), which states, "The owner or operator shall not cause water pollution."

26. OAC Rule 3745-400-11(B)(15) states, "...The owner or operator shall not cause or allow operations to create a nuisance or health hazard from noise, dust, odors, and the attraction and/or breeding of birds, insects, rodents, and other vectors."

27. Respondents are in violation of OAC Rule 3745-400-11(B)(15) for causing or allowing operations to create a nuisance or health hazard from odors. These violations were documented in an NOV letter from the Ohio EPA to Respondents dated November 18, 2015.

A. On October 8, 2015, a Health Department inspector investigated odor complaints in the area surrounding the Facility. According to the inspector the hydrogen sulfide (H_2S) meter reached 20 ppb.

B. Ohio EPA's inspector documented the following data collected from Ohio EPA's H_2S meter: On November 4, 2015, the H_2S meter recorded H_2S levels up to 25 ppb between 6:10 a.m. and 11:09 a.m., up to 87ppb between 5:00 p.m. and 9:08 p.m. and up to 121 ppb between 10:00 p.m. and 11:56 p.m.; and, On November 5, 2015, the H_2S meter recorded H_2S levels up to 99 ppb between 12:09 a.m. and 2:32 a.m., up to 92 ppb between 4:03 a.m. and 8:23 a.m. and up to 28 ppb between 12:27 p.m. and 5:56 p.m.

Thereafter, in November 2015, Respondent Lordstown Construction Recovery prepared a document entitled, Survey of the Non-Landfill Related Hydrogen Sulfide Gas Sources in the proximity of the Lordstown Construction Recovery Landfill, Lordstown. Respondent Lordstown Construction Recovery submitted the aforementioned study to the Trumbull County Health District on December 2, 2015 and to Ohio EPA on December 4, 2015. which included information regarding oil and gas wells and slag on-site, as well as wetlands, sewers, oil and gas wells and slag in the vicinity of the Facility. Thereafter, on January 28, 2016 Lordstown Construction Recovery submitted the results of the H2S study to Ohio EPA and the Trumbull County Health District.

OAC Rule 3745-400-10(A) - (E); and Ground Water Assessment Findings

28. ORC Section 3714.02 requires the Director to adopt rules to ensure that construction and demolition debris facilities do not, among other things, create a nuisance or health hazard or cause or contribute to water pollution. The Director adopted OAC Rule 3745-400-10 as a result of this statutory requirement.

29. The Facility design does not include a recompacted soil liner on the bottom of Phases I - IV.

30. The Facility has a leachate collection system.

31. Pursuant to OAC Rule 3745-400-10(A), Respondents were required to install a ground water monitoring well system for the Facility.

32. Respondents installed ground water monitoring wells MW-1, MW-2, and MW-3 at the Facility pursuant to the initial license.

33. MW-1 was installed as an upgradient well, and MW-2 and MW-3 were installed as downgradient wells. Respondents initiated ground water monitoring of these wells in June 2003.

34. On July 1, 2005, Respondents abandoned MW-1, and replaced it with MW-1R, identified as a replacement upgradient well. Sampling commenced on MW-1R in July 2006. MW-1R has since been abandoned.

35. Respondents installed MW-4 as an upgradient well, and MW-5 and MW-6 as downgradient wells in December of 2006.

36. In a *2013 Annual Groundwater, Leachate, OAC 3745-400-10 (C)(2) Analytical Report* dated September 3, 2013 and *2014 Annual Groundwater and Leachate Analytical Report* dated August 19, 2014, Respondents' consultant Bowser-Morner divided the monitoring wells into two categories, as listed in the following table:

Monitoring Well Groupings from Bowser-Morner Reports
Lordstown Construction Recovery

Shallow SZS Monitoring Wells		Bedrock-Buried Valley (BR-BV) Monitoring Wells	
Well I.D.	Up or Down Gradient	Well I.D.	Up or Down Gradient
MW-1 / MW-1R	Up	MW-7	Up
MW-2	Down	MW-8	Down
MW-3	Down	MW-9	Up
MW-4	Up	MW-10	Down
MW-5	Down	MW-12	Down
MW-6	Down	MW-13	Down

37. According to the well summary sheet for ODNR oil and gas well #3415523279, located immediately west of the landfill, the first bedrock encountered beneath the west side of the landfill is the Berea sandstone at a depth of 160 feet below grade. The Sharon sandstone and conglomerate lies within five feet of the surface in the southeast portion of the facility.

38. Ohio EPA, Division of Drinking and Ground Waters ("DDAGW") constructed five cross sections through the Lordstown landfill property using data from the monitoring wells and earlier soil borings. The cross sections showed no single, continuous, shallow geologic unit beneath the landfill. The cross sections also showed apparent hydrologic connections between the shallow Sharon sandstone and conglomerate bedrock monitoring wells in the southeast portion of the property and the buried valley sand/sand and gravel monitoring wells in the central and northwest portions of the property.

39. Based on analysis of the cross sections and hydrology, although Respondent does not fully agree, Ohio EPA, DDAGW finds the monitoring wells realigned as follows:

Monitoring Well Group Realignment from Ohio EPA
Lordstown Construction Recovery

Shallow SZS Monitoring Wells		Mid-Depth Aquifer Monitoring Wells	
Well I.D.	Gradient Position Relative to Landfill	Well I.D.	Gradient Position Relative to Landfill
MW-1	Up	MW-7	Up
MW-1R	Undefined	MW-12	Down
MW-2	Undefined	MW-13	Down
MW-3	Undefined		
MW-4	Up		
MW-5	Undefined		
MW-6	Down		
MW-8	Down		
MW-9	Up		
MW-10	Down		
MW-11	Side		
MW-14R	Undefined		

The realigned monitoring well groups were used to evaluate the data. The area of MW-11 is located in an area of new fill placement (Phase IX). Because it is possible that the ground water at that location has been or may be down gradient of the recent fill materials. MW-11data was not used as background data.

40. Ground water flow patterns are likely influenced by the mechanical dewatering system beneath the western portion of the landfill.

41. An Ohio EPA, DDAGW qualified ground water scientist drafted the "Report of Preliminary Hydrogeologic Investigation of the Lordstown Construction Recovery C&DD Facility," a ground water quality report dated November 19, 2015.

42. Ohio EPA observed on February 10, 2015, that the underdrain dewatering system located in the western cells of the landfill (Phases I through IV) was mechanically diverting groundwater by use of underdrains and pumps.

43. Ohio EPA examined the available data to investigate connectivity between the landfill waste leachate and ground water.

44. An Ohio EPA, DDAGW, qualified ground water scientist has concluded, in the pHGI, that the discharge water data plots between most of the western shallow

ground water data and the western leachate data indicate that the discharge water is a mix of shallow ground water and leachate.

45. Ohio EPA analyzed the available ground water data via Piper plotting and Stiff diagrams using Sanitas version 9.4.27 software to investigate 1) connectivity between the landfill waste leachate and ground water, if any; and 2) the source of ammonia in the water discharged to the surface from the dewatering system beneath the west end of the landfill. Ground water quality data from July 2003 through the June 2014 sampling was available for these analyses. The ground water data set for this study also includes data from six monitoring wells (MW-7, MW-8, MW-9, MW-10, MW-12 and MW-13) installed in the first half of 2013. Monitoring wells MW-11 and MW-14R were installed in September 2014. The most recent ground water data was obtained from the *2016 C&DD License Application for Lordstown Construction Recovery, Lordstown Township, Trumbull County, Ohio* dated August 25, 2015.

46. An Ohio EPA, DDAGW, qualified ground water scientist concluded in the pHGI that the discharge water ammonia concentration is statistically between the shallow ground water data and the leachate data. Based on ammonia concentration data, the discharge water at the time of the February 5, 2015 underdrain discharge sample was a mix of approximately 89 percent shallow ground water and 11 percent leachate. Those percentages would be expected to fluctuate based on precipitation, shallow ground water levels, and underdrain system operation.

47. Given the influence of the mechanical underdrain dewatering system, the ground water flow regime at the facility must be re-evaluated to determine which wells are upgradient and downgradient of C&DD at the Facility, specifically in the western portion of the Facility as required by OAC Rule 3745-400-10(A) and (B).

48. The DDAGW pHGI Report concludes that the ground water monitoring system is lacking in coverage on the west side of the landfill. Ohio EPA notes that additional mid-depth and deep detection monitoring wells are required on the west side of the landfill in accordance with OAC 3745-400-10(D) to characterize ground water flow between the landfill and the nearest known, down-gradient potable water well.

49. OAC Rule 3745-400-10(C) provides in relevant part: "The owner or operator shall determine the concentration or value of the parameters listed in the appendix of this rule in ground water and leachate in accordance with the following schedule: [***] (2) During the initial year of ground water monitoring, the owner or operator shall do the following: (a) At least quarterly, determine the initial background concentration or value in ground water samples from all monitoring wells for parameters 1 to 19 listed in the appendix of this rule. [***] (3) After the initial year, the owner or operator shall at least annually sample all monitoring wells and the leachate collection system and analyze the samples for the parameters 1 to 19 listed in the appendix of this rule."

50. OAC Rule 3745-400-10(D) provides: "Ground water assessment. The licensing authority or director may order the owner or operator to conduct a ground water assessment to determine the concentration of possible contaminants, and their extent and rate of migration within the ground water if the licensing authority or director determines that the facility may be affecting ground water quality. Such a determination shall be supported by leachate quality reports, if required by paragraph (B) of this rule and the following: (1) The ground water quality reports from a qualified ground water scientist. (2) Water quality data from documented leachate releases to seeps, springs, streams or other receptors."

51. An Ohio EPA, DDAGW qualified ground water scientist drafted the pHGI which includes recent ground water quality data and leachate content data plotted on Piper trilinear diagrams. The data from monitoring wells MW-2, MW-11 and MW-14R plotted near the leachate data in the anion and combined portions of the Piper plot indicates that the ground water at the locations of MW-2, MW-11 and MW-14R has been impacted by leachate.

52. The Ohio EPA, DDAGW pHGI also states: Ground water samples from monitoring wells MW-5, MW-7, MW-13, and MW-14R have contained arsenic above the MCL of 0.01 mg/L, with the highest reported value in the April 29, 2015 sample from MW-14R (0.026 mg/L). MW-5 and MW-13 are approximately 160 horizontal feet from each other on the north side of the landfill.

Maximum Arsenic Concentrations in Ground Water
Lordstown Construction Recovery

Monitoring Well	Saturated Zone	Maximum Arsenic Concentration, mg/L, & date	Monitoring Well	Saturated Zone	Maximum Arsenic Concentration, mg/L, & date
MW-1R	SZS	No data	MW-8	SZS	0.002 12/4/13
MW-2	SZS	0.008 7/29/15	MW-9	SZS	0.007 6/21/13
MW-3	SZS	0.008 7/29/15	MW-10	SZS	0.004 12/4/13
MW-4	SZS	0.005 6/4/14	MW-11	SZS	0.004 4/29/15
MW-5	SZS	**0.018** 6/3/14	MW-12	BR-BV	0.006 7/29/15
MW-6	SZS	0.002 6/3/14	MW-13	BR-BV	**0.018** 6/4/14
MW-7	BR-BV	**0.021** 6/4/14	MW-14R	SZS	**0.036** 7/29/15

Saturated zones: SZS = Sharon sandstone and conglomerate and shallow, unconsolidated sediment deposits; BR-BV = Bedrock-Buried Valley.
Bold = Above the maximum contaminant level (MCL) of 0.01 mg/L arsenic.

53. The Ohio EPA pHGI concluded that of the monitoring wells with sufficient data points to conduct trend analysis, only the mid-depth aquifer monitoring wells (MW-7, MW-12 and MW-13) show visibly increasing arsenic concentration data. This is an apparent down-gradient area and needs to be monitored. Additional mid-depth and deep detection monitoring wells are required on the west side of the landfill in accordance with OAC 3745-400-10(D) to characterize ground water flow. "Mid-depth" is defined by the screened intervals of MW-7, MW-12 and MW-13 (815 to 863 feet amsl). "Deep" is defined by the screened interval of the residential water well at 3072 Newton Falls Bailey Road' (765 to 780 feet amsl).

54. The Ohio EPA pHGI noted higher ammonia concentrations in the ground water quality data samples from MW-8 and MW-10, located on the north side of the landfill. MW-8 is immediately down gradient of the fill in the Phase VIII cell, and MW-10 is immediately down gradient of the northeast runoff retention pond.

55. Based upon the pHGI, a ground water quality report, submitted by an Ohio EPA, DDAGW qualified ground water scientist as identified in the above Finding, and having considered all of the above findings, pursuant to OAC Rule 3745-400-10(D), the Director has determined that the Facility may be affecting ground water quality and may order the owner or operator to conduct a ground water assessment pursuant to OAC Rule 3745-400-10(E) to determine the concentration of possible contaminants, and their extent and rate of migration within the ground water.

56. OAC Rule 3745-400-10(E) provides in relevant part: "Ground water assessment plan and implementation. The ground water assessment shall include the submittal and implementation of a ground water assessment plan prepared by a qualified ground water scientist to the licensing authority or as required by the orders issued by the licensing authority or director. (1) The ground water assessment plan shall include the following sampling and analysis: (a) Sampling of the affected well(s) and background well(s) and analysis of those samples for all leachate or leachate-derived constituents including those constituents listed in the appendix of this rule." [See Appendix to OAC Rule 3745-400-10 and parameter list in 3745-400-21.]

ORC Section 6111.03(H) Findings

57. ORC Section 6111.03(H) authorizes the director of Ohio EPA to "issue, modify, or revoke orders to prevent, control or abate water pollution by such means as the following: (1) prohibiting or abating discharges of sewage, industrial waste, or other waste into waters of the state."

58. Respondents are persons pursuant to ORC Section 6111.01(I) which defines a "Person" to include "the state, any municipal corporation, any other political subdivision of the state, any person as defined in section 1.59 of the Revised Code, any interstate body created by compact, or the federal government or any department, agency, or instrumentality thereof."

59. Pursuant to ORC Section 6111.01(D), "'Other wastes' means garbage, refuse, decayed wood, sawdust, shavings, bark, and other wood debris, lime, sand, ashes, offal, night soil, oil, tar, coal dust, dredged or fill material, or silt, other substances that are not sewage, sludge, sludge materials, or industrial waste, and any other 'pollutants' or 'toxic pollutants' as defined in the Federal Water Pollution Control Act that are not sewage, sludge, sludge materials, or industrial waste."

60. The construction and demolition debris-derived constituents from the Facility constitute "other wastes" as defined by ORC Section 6111.01(D).

61. Pursuant to ORC Section 6111.01(H) "'Waters of the state' means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and other bodies or accumulations of water, surface and underground, natural or artificial, regardless of the depth of the strata in which underground water is located, that are situated wholly or partly within, or border upon, this state, or are within its jurisdiction, except those private waters that do not combine or effect a junction with natural surface or underground waters."

62. The surface water and groundwater with which the Ohio EPA Director is concerned in these Orders falls within the definition of "waters of the state" as defined by ORC Section 6111.01(H).

63. Based upon the Ohio EPA pHGI as identified in the above Findings and having considered all of the above findings, the Director has determined that there is an indication of a release of construction and demolition debris-derived constituents to waters of the state.

64. Pursuant to ORC Section 6111.03(O) "the director of environmental protection may exercise all incidental powers necessary to carry out the purposes of this chapter."

65. The Director has determined that to protect the waters of the state pursuant to ORC Section 6111.03(H)(1) a ground water assessment order to determine the concentration of possible contaminants, and their extent and rate of migration within the ground water is a necessary step to prohibit or abate discharges of debris-derived constituents from the Facility into ground waters.

Surface Water Findings Section

66. Storm water from the Site discharges to Duck Creek and unnamed tributaries to Duck Creek. Duck Creek and the unnamed tributaries constitute "waters of the state," as defined in ORC Section 6111.01(H). "Industrial waste" or "other wastes," as defined in ORC Section 6111.01, are contained in the storm water. Placement of this waste into waters of the state constitutes "pollution," as defined in ORC Section 6111.01(A).

67. Pursuant to ORC Section 6111.04(A), no person shall place or discharge, or cause to be placed or discharged, in any waters of the state any sewage, sludge, sludge materials, industrial waste, or other wastes without a valid, unexpired permit.

68. Pursuant to ORC Section 6111.04(C), no person to whom a permit has been issued shall place or discharge, or cause to be placed or discharged, in any waters of the state any sewage, sludge, sludge materials, industrial waste, or other wastes in excess of the permissive discharges specified under an existing permit.

69. Pursuant to ORC Section 6111.07(A), no person shall violate or fail to perform any duty imposed by ORC Sections 6111.01 to 6111.08 or violate any order, rule, or term or condition of a permit issued or adopted by the Director of Ohio EPA pursuant to those sections. Each day of violation is a separate offense.

70. In accordance with OAC Rule 3745-33-02(A), no person may discharge any pollutant or cause, permit, or allow a discharge of any pollutant without applying for and obtaining an Ohio NPDES permit.

71. OAC Rule 3745-38-02 provides that no person may discharge any pollutant or cause, permit, or allow a discharge of any pollutant from a point source without either applying for and obtaining an Ohio National Pollutant Discharge Elimination System ("NPDES") individual permit in accordance with requirements of OAC Chapter 3745-33, complying with the indirect discharge permit program pursuant to OAC Chapter 3745-36 or obtaining authorization to discharge under an Ohio NPDES general permit in accordance with requirements of OAC Chapter 3745-38.

72. ORC Section 6111.03(J)(1) authorizes the Director to set the terms and conditions of the permit. That section further provides that any permit terms and conditions set by the director shall be designed to achieve and maintain full compliance with mandatory requirements of the Federal Water Pollution Control Act that are imposed by regulation of the Administrator of the United States Environmental Protection Agency. Pursuant to Section 402(p) of the federal act, the Administrator of USEPA imposed by regulation requirements to regulate storm water discharges. Under 40 C.F.R. 122.26 and OAC 3745-39-04(A)(1)(b), dischargers of storm water associated with an industrial activity are required to obtain an NPDES permit.

Storm water discharge associated with industrial activity means the discharge from any conveyance that is used for collecting and conveying storm water and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant.

73. OAC Rule 3745-1-04 provides, in part, that the following general water quality criteria shall apply to all surface waters of the state including mixing zones: To every extent practical and possible as determined by the Director, these waters shall be: (A) Free from suspended solids or other substances that enter the waters as a result of human activity and that will settle to form putrescent or otherwise objectionable sludge deposits, or that will adversely affect aquatic life; (C) Free from materials entering the waters as a result of human activity producing color, odor or other conditions in such a degree as to create a nuisance; and (D) Free from substances entering the waters as a result of human activity in concentrations that are toxic or harmful to human, animal or aquatic life and/or are rapidly lethal in the mixing zone.

74. On or about May 22, 2002, Respondent Lordstown Construction submitted a Notice of Intent ("NOI") to obtain coverage under the NPDES general storm water construction permit for the Facility. Coverage was granted on June 6, 2002. Respondent Lordstown Construction requested renewal of coverage on March 31, 2005 and on November 7, 2013. Coverage was granted most recently on April 10, 2014.

75. On June 28, 2006, Respondent Lordstown Construction submitted an NOI to obtain coverage under the NPDES General Permit Authorization to Discharge Storm Water Associated with Industrial Activity under the National Pollutant Discharge Elimination System for the Facility. Coverage was granted on August 10, 2006. This permit expired on May 31, 2011, but Respondent Lordstown Construction did not seek renewal of coverage for industrial storm water discharges.

76. Ohio EPA sent a letter dated December 16, 2014, to Respondent Lordstown Construction noting that while coverage under the general construction storm water NPDES permit is acceptable for initial landfill construction, it is not acceptable for ongoing landfill operations which are an industrial activity. The letter requested that Respondent Lordstown Construction apply for an individual NPDES permit.

77. On February 4, 2015, a meeting was held between Respondent Lordstown Construction and Ohio EPA to discuss an individual NPDES permit.

78. During a February 10, 2015 facility inspection, Ohio EPA noted that Respondent Lordstown Construction discharges storm water from an underdrain system. Respondent Lordstown Construction disclosed to Ohio EPA that when the system

was shut off, the leachate production in the landfill increased. Estimated discharge from the underdrain system ranges from 70,000 gallons per day ("gpd") to 100,000 gpd.

79. Ohio EPA also noted that there was a large quantity of construction and demolition debris on the ground in the rail unloading area at the Facility. Storm water coming into contact with the debris is considered to be leachate. Currently, the leachate discharges to a storm water control structure which has the potential to discharge to waters of the state. Discharging leachate to a storm water control structure and/or to waters of the state is a violation of Respondent Lordstown Construction's NPDES general storm water construction permit and ORC §§ 6111.04 and 6111.07.

80. Storm water ponds/structures largely infiltrate into underlying groundwater beneath the facility, which also periodically discharge to various unnamed tributaries of Duck Creek. The material that the ponds and storm water control structures are constructed in is porous, and some ponds/structures appear to have ground water infiltrating into the ponds.

81. On March 17, 2015, Ohio EPA met with Respondents to discuss ground water and surface water issues and permitting requirements. Ohio EPA sent a letter dated April 7, 2015 to Respondent Lordstown Construction memorializing the discussion and requesting additional information.

82. Ohio EPA sent a Notice of Violation ("NOV") dated April 14, 2015, to Respondent Lordstown Construction documenting violations found during the February 10, 2015 inspection. These violations included unpermitted discharges to waters of the state, unauthorized discharge of ground water to a sedimentation pond, collection and management of leachate and storm water from the rail unloading area, design of the sedimentation ponds. The NOV stated that an individual NPDES permit application, which had previously been requested in writing in December 2014, must be received in the Northeast District Office of Ohio EPA by May 1, 2015.

83. By letter dated May 13, 2015, Respondent Lordstown Construction stated that it planned to submit an individual NPDES permit application to Ohio EPA by May 31, 2015. Respondent Lordstown Construction Recovery also included updates on the "Observations and Notations" in the April 14, 2015 NOV, including planned actions to evaluate/address the connectivity between the underdrain and the leachate collection system, which proposed actions Ohio EPA had previously been made aware of in a letter from Lordstown Construction Recovery dated April 28, 2015.

84. Respondent Lordstown Construction submitted an application for an individual industrial wastewater and storm water NPDES permit that was received by Ohio

EPA on June 29, 2015. Ohio EPA requested additional information in a letter dated November 9, 2015.

85. Evaluation of the Facility by Ohio EPA indicates that leachate from the landfill may be affecting groundwater monitoring wells along the boundaries of the Facility. Analytical data supplied by Respondent Lordstown Construction in a June 29, 2015 NPDES permit application indicate elevated ammonia levels in several storm water control structures.

86. Ohio EPA sent an NOV dated October 16, 2015, to Respondent Lordstown Construction. The NOV noted that high levels of ammonia in groundwater monitoring wells and sedimentation traps show that the landfill has contaminated ground and surface waters. In addition, the underdrain water contains levels of ammonia that, when pumped to the sedimentation pond, results in a discharge from the pond to waters of the state that exceeds water quality standards for ammonia. Among the violations cited in the NOV were violations of ORC 6111.04, and OAC Rules 3745-33-02(A), 3745-33-03(B), and 3745-1-04(D).

87. In a letter dated November 9, 2015 to Respondent Lordstown Construction requesting additional information to be submitted as part of Respondent Lordstown Construction's NPDES permit application, Ohio EPA noted that analytical data provided in the NPDES permit application by Respondent Lordstown Construction showed exceedances of water quality standards for ammonia and oil and grease at Outfall 001, ammonia and mercury at Outfall 002, mercury at Outfall 004, and ammonia and mercury at Outfall 005. It is noted that some of the samples collected in support of the NPDES permit application were taken from water in sedimentation ponds and sedimentation traps because of a lack of active discharge from some of the outfalls. Violations of water quality standards are violations of OAC Chapter 3745-1, and ORC §§ 6111.04 and 6111.07.

88. The following Orders do not constitute authorization or approval of the construction of any physical structure or facilities, or the modification of any existing treatment works or sewer system. Any such construction or modification is subject to the permit to install ("PTI") and plan approval requirements of OAC Chapter 3745-42 and ORC Section 6111.45.

89. Compliance with ORC Chapter 6111 is not contingent upon the availability or receipt of financial assistance.

90. The Director has given consideration to, and based his determination on, evidence relating to the technical feasibility and economic reasonableness of complying with these Orders and to evidence relating to conditions calculated to result from compliance with these Orders, and its relation to the benefits to the people of the State to be derived from such compliance in accomplishing the purposes of ORC Chapter 6111.

V. ORDERS

Respondents shall achieve compliance with Chapters 3734., 3714. and 6111. of the Ohio Revised Code and the rules promulgated thereunder, according to the following compliance schedule:

Division of Surface Water - ORC Chapter 6111 Orders

1. Respondents shall continue to collect and pump the underdrain water to the City of Warren wastewater treatment plant until an NPDES permit is obtained and Respondents demonstrate an ability to meet the effluent limits in the NPDES permit.

2. Within forty-five (45) days after the effective date of these Orders, Respondents shall submit, in accordance with Section XII. of these Orders, a plan for eliminating the creation of leachate at the rail unloading area by implementing best management practices (BMPs). If Respondents incorporate the use of a holding tank, collection pond, or treatment system as a BMP for the rail unloading area, Respondents shall submit a permit to install application as described in Order 4.

3. Respondents shall:

   A. Within sixty (60) days after the effective date of these Orders, Respondents shall submit, in accordance with Section XII. of these Orders, a complete NPDES permit application and an antidegradation addendum that address the deficiencies listed in Ohio EPA's November 9, 2015 letter.

   B. Comply with all terms and conditions of the NPDES permit for the Facility issued by the Director and all modifications and renewals thereof.

4. Within one hundred and twenty (120) days after the effective date of these Orders, Respondents shall submit, in accordance with Section XII. of these Orders, one or more permit to install ("PTI") applications that shall include detailed plans, agency forms with schedules for construction, and any necessary technical specifications for the following facility collection or treatment systems Respondents intend or are required to install:

   A. Collection tanks or ponds and conveyance structures for collecting the leachate contaminated storm water in the rail unloading area for: (1) hauling it off site to a permitted wastewater treatment plant; or (2) treating it on site;

   B. Appropriately sized sedimentation ponds and sedimentation traps for their drainage areas;

   C. Lining the sedimentation ponds and sedimentation traps as follows:

i. Synthetically lining all sedimentation ponds and sedimentation traps that are in direct contact with ground water that may result in contaminants either entering the ponds/traps via ground water, or infiltrating storm water that could potentially have a direct impact on ground water quality or the underdrain or leachate pumping systems at the facility;

ii. Lining ponds/traps with a soil based liner system for those ponds that infiltrate ground water, but Respondents demonstrate do not directly impact ground water quality or the underdrain or leachate pumping systems at the facility;

iii. No liner is required for ponds/traps that Respondents demonstrate do not infiltrate ground water and are not influenced by ground water entering the ponds/traps;

iv. All pond/trap designs may be addressed on a case-by-case basis; and

v. If at any time the Director determines that a pond or trap that is not lined with a synthetic liner is in direct contact with groundwater, within sixty (60) days of notification from Ohio EPA, Respondents shall submit, in accordance with Section XII. of these Orders, either a PTI application for lining the pond with a synthetic liner, or a demonstration with which the Director concurs that the pond or trap is not in direct contact with groundwater.

D. A wastewater treatment system to treat prior to discharge to waters of the state the water or wastewater discharged from all outfalls at the Facility that contain leachate or cannot meet water quality standards, the leachate from the rail unloading area, if applicable, and the underdrain water until it can be eliminated permanently.

5. If Ohio EPA sends a notice of deficiency on any plan, or permit application submitted pursuant to Orders 2, 3 or 4, Respondents shall respond in writing within thirty (30) days of receipt of notification of comments or deficiencies from Ohio EPA.

6. Within one hundred twenty (120) days after the effective date of these Orders, Respondents shall submit a General Plan to Ohio EPA, in accordance with Section XII. of these Orders, that identifies options for elimination of the need to pump the underdrain system. The General Plan shall identify options and recommend improvements and/or options requiring further evaluation for achieving the purpose of eliminating the pumping of underdrain water from the landfill and the discharge of leachate to waters of the state, including structural modifications and/or

improvements to the landfill, changes in operational or maintenance procedures, and implementation of best management practices. The General Plan shall also include at a minimum:

A. Documentation identifying and adequately characterizing the location of the top of the uppermost aquifer and potential contaminant migration pathways, including any hydrogeologic data or soil borings.

B. Documentation identifying and adequately characterizing Respondents' assertion that the Facility is designed in a manner that maintains at least seven (7) feet of separation between the debris placement and uppermost aquifer on the bottom and side slopes and documentation that supports Respondents' assertion as to a separation between debris placement and the uppermost aquifer either with in situ and/or added geologic material that attains a minimum thickness of five feet with a maximum permeability of 1 x 10^{-6} cm/sec. The demonstration of the thickness and hydraulic conductivity of the in situ geologic material shall be based on the borings used for the site hydrogeology investigation required by paragraph (C)(5) of rule 3745-400-09 of the Administrative Code, and shall be shown on the cross sections.

C. Documentation of the placement of monitoring wells that are capable of immediately detecting releases from debris placed in Phases 1-4 to the uppermost aquifer.

D. An explanation of how the underdrain and pump is currently designed and operated.

E. Assessment of hydraulic connection between zones of saturation yielding significant amounts of water, and properly define potential zones of contaminant migration.

F. Demonstration that any units identified as the confining units below the uppermost aquifer are of sufficiently low permeability to minimize the passage of contaminants to saturated, stratigraphically lower units.

G. A schedule for implementing the recommended improvements.

7. Within thirty (30) days of receipt of notification of comments or deficiencies from Ohio EPA on the General Plan required by Order 6, Respondents shall provide to Ohio EPA, in accordance with Section XII. of these Orders, a response addressing any comments or deficiencies and/or submitting any requested revisions to the recommended actions or improvements or the schedule.

8. Upon Ohio EPA's concurrence with the General Plan, Respondents shall implement the actions and improvements recommended in the General Plan that do not require a PTI from Ohio EPA in accordance with the schedule included in the General Plan as accepted by Ohio EPA.

9. If any of the actions or improvements recommended in the General Plan requires a PTI, Respondents shall, within eight (8) months from the effective date of these Orders, submit to Ohio EPA, in accordance with Section XII. of these Orders, approvable detailed plans and a complete PTI application.

10. Within thirty (30) days of receipt of notification of comments or deficiencies from Ohio EPA on the PTI required by Order 9, Respondents shall provide to Ohio EPA, in accordance with Section XII. of these Orders, a revised PTI application and detailed plans addressing the comments or deficiencies.

11. If the implementation of the recommendations of the General Plan will not result in elimination of the pumping of underdrain water from the landfill and the discharge of leachate to waters of the state, Respondents shall reevaluate any options for achieving these goals, including any new technology, on a biennial basis and shall submit a report on the reevaluation and additional recommendations for improvements to Ohio EPA in accordance with Section XII. of these Orders. The biennial reports shall be submitted by December 31 of each applicable year. Upon concurrence by Ohio EPA, Respondents shall implement the additional recommended improvements.

Division of Materials and Waste Management - ORC Chapter 3714, OAC Rule 3745-400-07, OAC Rule 3745-400-09, and OAC Rule 3745-400-11 Orders

12. Not later than 14 days after the effective date of these Orders, Respondents shall initiate baseline surface monitoring for hydrogen sulfide in all areas where debris has been placed, except in areas where a final cap has been installed in accordance with OAC Rules 3745-400-08 and 3745-400-07. Monitoring shall be conducted using a Jerome meter capable of detecting concentrations of hydrogen sulfide at levels of 5 ppb and above. The meter shall be calibrated, operated, and maintained in accordance with the manufacturer's specifications. Monitoring shall be completed in compliance with the Odor Control Compliance Plan attached as Exhibit A. Surface scanning shall be conducted such that the Jerome meter probe inlet shall be placed within less than six inches of the landfill surface. At any location where surface monitoring demonstrates hydrogen sulfide levels exceed 20 ppb, Respondents shall apply soil layer to the area a minimum of six inches in depth. The minimum six inch soil layer added during the baseline surface monitoring shall not contain solid waste, C&DD, pulverized debris, sludge, slag, compost, compost product or contaminated soils. The minimum six inch soil layer to be applied pursuant to this Order, shall be nonputrescible, shall have a low permeability to water, good compactability, cohesiveness, and relatively uniform

texture, and shall not contain large objects in such quantities as may interfere with its application and intended purpose to prevent the emission of hydrogen sulfide or other gases. Respondents shall complete baseline surface monitoring and the application of soil layer to the area a minimum of six inches in depth pursuant to this Order, where surface monitoring demonstrates hydrogen sulfide levels exceed 20 ppb, within 30 days of the effective date of this Order.

13. If potentially dangerous conditions exist (e.g., areas with snow or ice cover, or overly saturated soil conditions), Respondents may request an extension from Ohio EPA for a designated area to complete the baseline area surface monitoring and the application of soils required under Order Number 12. Respondents must obtain written approval from Ohio EPA prior to extending the performance of baseline area surface monitoring and the application of the soil layer required under Order Number 12 in such designated area.

14. Upon the effective date of these Orders, Respondents shall implement the Odor Control Compliance Plan attached as Exhibit A, and fully incorporated herein.

15. This Order shall not be construed to waive, compromise, exempt or exclude Respondents from the requirements to install a final cap system in accordance with OAC Rules 3745-400-12, 3745-400-08 and 3745-400-07, as applicable.

16. In no event shall hydrogen sulfide concentrations exceed 20 ppb beyond the Facility. Any such exceedance shall be viewed as a new violation.

17. Not later than one hundred twenty (120) days after the effective date of these Orders, Respondents shall submit to Ohio EPA for review and approval in accordance with Section VI of these Orders, Review of Submittals, a "Remedial Action Plan or RAP" that addresses the following: Long term measures to address ground water control structures beneath Phases 1-4. Such measures shall consider any necessary authorizations, including but not limited to permits for treating and discharging groundwater and leachate to waters of the state. Respondents' RAP shall consider the effectiveness and feasibility of performing the following:

    A. Operating proposed permanent ground water control structures in perpetuity;

    B. Operating proposed permanent ground water control structures for a specified period of time less than in perpetuity. Respondents shall include in discussion of this alternative details for evaluating whether pumping beyond the specified length of time should continue;

    C. Proposed plans to address maintenance and operation of the pump and underdrains including contingency plans for pump or drain failure;

D. Proposed property use limitations, restrictions, and operation and maintenance obligations to run with the Property, and to run against subsequent owners and successors in interest, through an Environmental Covenant to be filed with the County Recorder; and

E. Other measures to adequately control ground water infiltration beneath Phases 1-4, for example a slurry wall or other features.

Division of Materials and Waste Management, Ground Water Assessment Orders - ORC Chapter 3714; OAC Rules 3745-400-10(A), (D), and (E)

18. Not later than sixty (60) days after the effective date of these Orders, Respondents shall:

A. Install a pair (shallow and deep) of monitoring wells as sentinel wells between MW-14R and 3072 Newton Falls Bailey Road;

B. Develop and sample the additional monitoring wells and submit the samples to a qualified third-party analytical laboratory for the full list of ground water monitoring parameters in the amended appendix to OAC 3745-400-10;

C. Submit a report to Ohio EPA describing the activities performed per this order. This description shall include but not necessarily be limited to: a map of the Lordstown C&DD facility displaying the new monitoring well locations relative to existing site features, well boring, installation and development logs of the well required per this order, completed sampling forms, complete laboratory analytical reports, sample chain-of-custody forms, data summary tables for all wells and parameters analyzed per this order including identification of concentrations of analytical parameters above background concentrations from sampled monitoring wells and the potable water well at 3072 Newton Falls Bailey Road; and,

D. Include the two (2) new monitoring wells in the ground water monitoring network established at Lordstown C&DD Facility, unless otherwise provided by Ohio EPA in writing.

19. Not later than ninety (90) days after the effective date of these Orders, Respondents shall:

A. Install additional monitoring wells and piezometers as necessary to define the ground water flow patterns beneath the site, including influences from the underdrain pumping and surface pond recharge.

B. Submit a report of the ground water flow pattern findings, including appropriate maps and summary table(s) of static water level calculations with measurement point elevations as determined by a registered professional surveyor.

C. Submit a revised ground water monitoring well system plan per OAC 3745-400-10(A).

20. Ground Water Quality Assessment Plan. Not later than one hundred and twenty (120) days after the effective date of these Orders, Respondents shall submit to Ohio EPA for review and approval in accordance with Section VI of these Orders, Review of Submittals, a Ground Water Quality Assessment Plan ("the Plan") prepared by a qualified ground water scientist that complies with the requirements of OAC Rule 3745-400-10(E), and contains the following:

A. Information that complies with the requirements of OAC Rule 3745-400-10(E). The Plan shall also provide that OAC Rule 3745-400-10(E)(1)(c) shall be implemented with an increase in sampling to require at least semi-annual monitoring of wells included in the ground water assessment, including monitoring wells MW-8, MW-9 (background), MW-10, and additional wells to be installed or to be added to assessment pursuant to these Orders, the Plan, and as required by OAC Rule 3745-400-10(E)(1)(a); and shall require analysis of those samples for all the parameters listed in the appendix of OAC Rule 3745-400-10 and 3745-400-21, and any additional constituents of concern.

B. The Plan shall provide for additional ground water assessment wells to be installed horizontally and vertically beyond the monitoring wells required in these Orders as necessary to determine the rate and extent of migration and concentrations of debris-derived constituents released to ground water from the Facility. The Plan shall include a specific description of data analysis procedures to be used or a specific list of data analysis procedures to be chosen from to evaluate hydrogeologic and geochemical data from assessment activities, and a narrative that describes the specific criteria to be used to identify that installation of such additional assessment wells is necessary.

C. A description of the configuration of the assessment ground water monitoring well system and new well locations using maps and a narrative, and drawings of the proposed design of any wells not yet constructed. The Plan shall include a requirement that all new monitoring wells shall be designed, screened, located, installed, and developed for ground water assessment monitoring such that the monitoring network is capable of determining the concentration of any debris-derived contaminants in ground-water downgradient from the Facility, and their extent and rate of

migration within the ground water, including all the parameters listed in the appendix of OAC Rule 3745-400-10 and 3745-400-21, and additional constituents of concern.

D. Requirements for the sampling and analysis of leachate discharges at the Facility for the parameters found in the appendix to OAC Rule 3745-400-10 and 3745-400-21. The resulting leachate quality data shall be used to supplement ground water monitoring data to determine if the leachate could be causing any changes in the quality of the ground water.

E. The Plan shall provide for the semiannual sampling of leachate from all leachate sumps. The leachate sampling shall be conducted concurrently with ground water sampling activities. The leachate samples shall be analyzed for the parameters found in the appendix to OAC Rule 3745-400-10 and 3745-400-21.

F. Requirements for the provisions without conditions of public water to off-site residential well users that may be affected by the release of pollutants from the Facility to the ground water.

21. Implementation of Assessment Plan. Upon approval of the Plan pursuant to Order Number 20, Respondents shall implement the Plan in accordance with the schedule contained in the Plan, the Orders, and OAC Rule 3745-400-10(E). Not later than sixty (60) days after Ohio EPA's approval of the Plan, Respondents shall install and commence sampling semi-annually the additional wells required by these Orders and shall commence sampling of all impacted ground water monitoring wells and associated background wells, as required by OAC Rule 3745-400-10(E)(1), the Plan, and these Orders. Respondents shall notify Ohio EPA at least fifteen (15) days in advance of each sampling event, and provide Ohio EPA the opportunity to collect split samples during each sampling event. Respondents shall submit all analytical data not later than ninety (90) days after sampling the wells described in this Order.

22. Semiannual Ground Water Quality Assessment Activities Report. Respondents shall submit to Ohio EPA semiannually a written Ground Water Quality Assessment Activities Report (the "Activities Report"), prepared by a qualified ground water scientist, that summarizes activities performed by Respondents under these Orders and contains all data collected related to the Facility and interpretative reports generated by Respondents during the previous six month reporting period. Any data or interpretative reports previously submitted to Ohio EPA do not need to be resubmitted in the Activities Report but shall be referenced within the Activities Report. The initial Activities Report shall be submitted with the ground water analytical data submitted pursuant to these Orders.

23. Ground Water Quality Assessment Report. No later than three years after the approval of the Assessment Plan pursuant to these Orders, Respondents shall make a determination of the concentration of any contaminants in ground water released from the Facility and their extent and rate of migration within the ground water, and shall submit to Ohio EPA for review in accordance with Section VI of these Orders, Review of Submittals, a written Ground Water Quality Assessment Report ("the Assessment Report"), prepared by a qualified ground water scientist, that documents that determination. At a minimum, the Assessment Report shall include the following:

A. A determination of the concentration of any contaminants in ground water released from the Facility and their extent and rate of migration within the ground water.

B. An assessment of the ground water quality as required by OAC Rule 3745-400-10(E)(4) and all data and interpretative reports related to the Facility. Any data or interpretative reports previously submitted to Ohio EPA do not need to be resubmitted in the Assessment Report but shall be documented in the Assessment Report as incorporated by reference.

C. A list of the debris-derived constituents and their concentrations that have been released to ground water from the Facility.

D. An evaluation of background ground water quality at monitoring wells.

E. The extent and rate of migration within the ground water of each released debris-derived constituent. This shall include isoconcentration maps for each debris-derived constituent. The determination of extent and rate of migration shall include both the vertical and horizontal extent of the release to ground water.

F. Time versus concentration graphs for each debris-derived constituent released to ground water for each monitoring well included within the ground water quality assessment program.

24. Demonstration. Respondents may submit a demonstration that the Facility has not impacted ground water. The demonstration shall be accompanied by a certification of a qualified ground water scientist, in accordance with Order 28 of these Orders, certifying that the Facility has not impacted ground water. The demonstration shall document reasons for this determination including a demonstration that an alternate source, error, or natural variation caused the indication of a release of contaminants to the ground water from the Facility. The demonstration must be submitted to the director for review and approval in accordance with Section VI of these Orders, Review of Submittals, and shall specifically request that the director approve reinstatement of the detection monitoring program under OAC Rule 3745-

400-10(B). The demonstration shall be based on one or more of the following explanations:

A. A source other than a potential source of contamination at the Facility caused the ground water contamination. This demonstration shall include, at a minimum, the following:

1. A map showing the location of possible sources, including the estimated extent of alternate source contaminants.

2. Analysis of ground water monitoring data demonstrating that the ground water contamination is not from potential sources of contamination at the Facility. This demonstration shall include ground water quality time series plots and where available, a comparison of the Facility ground water monitoring data to leachate data from the Facility and trilinear or stiff diagrams displaying the Facility ground water data and potential alternate source data together.

3. Where available, copies of any documentation of spills or storage or occurrence of materials that are being identified as the alternate source.

4. Where available, soil sampling analytical data used to identify the alternate source.

5. Where available, ground water quality data from other investigations related to the alternate source.

6. A description of how the ground water detection monitoring program will be influenced by the ground water contamination from the alternate source.

B. An indication of a release of contaminants to ground water from the Facility is due to an error in one or a combination of the following:

1. Sampling or reporting of sampling of the ground water monitoring wells. This demonstration shall include at a minimum, field notes and field data sheets completed during the sampling event for the affected ground water monitoring well and any field notes documenting problems encountered during construction, development, maintenance or efforts to repair the ground water monitoring well.

2. Chemical analysis or reporting of chemical analysis of the ground water samples. This demonstration shall include at a minimum, a case narrative or signed letter from a representative of the laboratory specifying the error and how the error occurred and laboratory data

sheets showing the relevant quality control data that documents the error.

C. An indication of a release of contaminants to ground water from the Facility has resulted from natural variation in ground water quality. This demonstration shall include, at a minimum, the following:

1. Where available, laboratory analysis results of leachate from the Facility, and a comparison of the leachate results to ground water quality at the monitoring well where the indication of a release of contaminants to ground water from the Facility and other monitoring wells in the same zone of saturation or aquifer.

2. Ground water quality time series plots showing all monitoring wells in the zone of saturation or aquifer where the statistically significant change from background occurred.

3. Where available, ground water quality data from other wells no more than one mile from the Facility boundary that are screened in the same aquifer system where the indication of a release of contaminants to ground water from the Facility occurred.

25. If the qualified ground water scientist submits a demonstration pursuant to Order Number 24 and certifies that the Facility has not impacted ground water, and the director approves the demonstration made pursuant to Order Number 24 of these Orders, and approves reinstatement of the detection monitoring program under OAC Rule 3745-400-10(B) in accordance with Section VI of these Orders, then Respondents may resume monitoring in accordance with OAC Rule 3745-400-10(B). If the qualified ground water scientist submits a demonstration pursuant to Order Number 24 and certifies that the Facility has not impacted ground water, and the director does not approve the demonstration made pursuant to Order Number 24 of these Orders, and does not approve reinstatement of the detection monitoring program under OAC Rule 3745-400-10(B), the director may, pursuant to these Orders and in accordance with Section VI of these Orders, Review of Submittals, require Respondents to continue ground water assessment under these Orders, until the director approves reinstatement of detection monitoring pursuant to Order Number 24, or issues an Order selecting a corrective action pursuant to Order Number 26.

26. Corrective Action Requirements. If the Assessment Report confirms an indication of a release of contaminants to the ground water from the Facility, then not later than ninety (90) days after submitting the final Assessment Report, Respondents shall submit recommendations for potential corrective actions to address impacts to ground water from the Facility to the director or his authorized representative and shall offer to provide for the provision of public water to residential well users

potentially affected by the impacts to ground water from the Facility at no cost and without conditions to such residential well users. The director or his authorized representative may select from the corrective action recommendations submitted by Respondents, or the director or his authorized representative may request that the Respondents conduct an alternative corrective action remedy as selected by the director. If the director or his authorized representative proposes to select an alternative corrective action, then the Respondents shall have sixty (60) days to comment in writing to the director or his authorized representative as appropriate on the proposed corrective action. The director may approve, by a final action through the issuance of Orders, a ground water corrective action recommended by Respondents or an alternative corrective action selected by the director to address impacts to ground water from the Facility.

27. Until the director approves reinstatement of detection monitoring pursuant to these Orders, or issues an Order selecting a corrective action pursuant to these Orders, or unless the director otherwise agrees to modify these Orders under section XI or terminate these Orders under section VII, Respondents shall continue ground water assessment monitoring as described in these Orders.

28. All documents submitted to Ohio EPA under Orders 18 – 27 shall contain the notarized signature of a qualified ground water scientist and shall contain the following statement: "I certify that I am a qualified ground water scientist as defined in rule 3745-400-01 of the Administrative Code, and that I have prepared the information submitted in this document, and that to the best of my knowledge the information is true, accurate, and complete."

29. Not later than 90 (ninety) days after the effective date of these Orders, Respondents shall execute a Financial Guarantee Bond meeting the wording requirements of OAC Rule 3745-400-14 and create a Stand-By Trust for closure and post-closure care costs associated with performing work under Orders 1-11, and the GAP and the RAP closure and post-closure care of the Facility. For purposes of the Financial Guarantee Bond executed in accordance with this Order, the term "Director of Ohio EPA" shall replace "licensing authority" as that term is used in the wording requirements of OAC Rule 3745-400-14.

    A. The Financial Guarantee Bond shall be in an initial amount not less than the amount of the approved cost estimate for closure and post-closure care costs associated with performing work under Orders 1-11, and the GAP and the RAP closure and post-closure care of the Facility, which shall not be less than $17,872,023.00, Seventeen Million, Eight Hundred and Seventy-two Thousand, and Twenty-Three Dollars.

    B. During these thirty years, closure and post-closure care costs associated with performing work under Orders 1-11, and the GAP and the RAP closure and post-closure care of the Facility, must be reviewed annually and itemized costs

shall be submitted to Ohio EPA for review. Upon review, Ohio EPA may require increases to such closure and post-closure care costs. Should increases be required, for closure and post-closure care costs associated with performing work under Orders 1-11, and the GAP and the RAP closure and post-closure care of the Facility, Respondents shall increase the Financial Guarantee Bond to cover these increased costs.

C. Respondents may make a request for a reduction in the amount of the financial assurance required under this Order to the Director at the time of the annual review. If Respondents annual review proposes a reduction of the financial assurance, the proposed reduction must demonstrate to the satisfaction of the Director, that it is based upon third party costs and current dollars associated with performing work under Orders 1-11, and the GAP and the RAP activities for 30 years. Any such request shall include a comparison of the recalculated post-closure care cost estimate associated with performing work under Orders 1-11, and the GAP and the RAP activities for 30 years, to the amount of financial assurance remaining at the time of the annual review. If upon request, the Director determines based upon a review of the comparison of the recalculated post-closure care cost estimate associated with performing work under Orders 1-11, and the GAP and the RAP activities for 30 years to the amount of financial assurance remaining, that a reduction in the Financial Assurance is warranted, the Director may approve in writing a reduction in the amount of Financial Assurance at the Director's discretion. The amount of financial assurance funded in accordance with this Order shall be funded in an amount not less than the recalculated post-closure cost estimate associated with performing work under Orders 1-11, and the GAP and the RAP activities for 30 years, as approved by the Director.

D. Respondents shall maintain the Financial Guarantee Bond in that initial amount, or such greater amount as required by this Order, or such lesser amount as approved by the Director pursuant to this Order, for at least thirty years following the effective date of these Orders.

E. Following this thirty-year period, the Director will determine whether additional closure and post-closure care costs associated with performing work under Orders 1-11, and the GAP and the RAP closure and post-closure care activities of the Facility need to be performed. If so, the Director may require Respondents to continue to perform closure and post-closure care activities and/or increase the amount in the Financial Guarantee Bond based on the closure and post-closure care costs associated with performing work under Orders 1-11, and the GAP and the RAP closure and post-closure care activities required to be performed.

Division of Surface Water Civil Penalty

30. Respondents shall pay the amount of one hundred and fifty thousand dollars ($150,000.00) in settlement of Ohio EPA's claims for civil penalties, which may be assessed pursuant to ORC Chapter 6111. Within thirty (30) days after the effective date of these Orders, payment to Ohio EPA shall be made by an official check made payable to "Treasurer, State of Ohio" for one hundred and fifty thousand dollars ($150,000.00). The official check shall be submitted to Carol Butler, or her successor, together with a letter identifying Respondents, to:

Office of Fiscal Administration
Ohio Environmental Protection Agency
P.O. Box 1049
Columbus, Ohio 43216-1049

A photocopy of the check shall be sent to Ohio EPA's Northeast District Office in accordance with Section XII. of these Orders, and to Mark Mann, Enforcement Manager, Storm Water and Enforcement Section, or his successor, at the following address:

Ohio Environmental Protection Agency
Division of Surface Water
P.O. Box 1049
Columbus, Ohio 43216-1049

Division of Materials and Waste Management Civil Penalty

31. Respondents shall pay to Ohio EPA the amount of one hundred and twenty-five thousand dollars ($125,000.00) in settlement of Ohio EPA's claim for civil penalties, which may be assessed pursuant to ORC Chapter 3714. in accordance with the following provisions: Within thirty (30) days after the effective date of these Orders, Respondents shall pay the amount of one hundred and twenty-five thousand dollars ($125,000.00) which will be deposited into the environmental protection remediation fund established pursuant to ORC Section 3734.281. Payment to Ohio EPA shall be made by an official check made payable to "Treasurer, State of Ohio" for one hundred and twenty-five thousand dollars ($125,000.00). The official check shall be submitted to Ohio EPA, Office of Fiscal Administration, Columbus, Ohio 43260-2711, together with a letter identifying Respondents and the Facility. A copy of the check shall be sent to Ohio EPA, Division of Materials and Waste Management, Supervisor, Administrative Processing Unit, PO Box 1049, Columbus, Ohio 43216-1049.

VI. REVIEW OF SUBMITTALS

Ohio EPA may review any work plan, report, or other item required to be submitted pursuant to these Orders in accordance with this Section. Upon review, Ohio EPA may in its sole discretion: (a) approve the submission in whole or in part; (b) approve the submission upon specified conditions; (c) modify the submission; (d) disapprove the submission in whole or in part, notifying Respondents of deficiencies; or (e) any combination of the above. The results of Ohio EPA's review shall be in writing and provided to the Respondents.

In the event of approval as is, approval upon condition, or approval as modified of any submission by the Ohio EPA, Respondents shall proceed to take any action required by the submission as approved, conditionally approved, or approved as modified by Ohio EPA.

In the event that Ohio EPA initially disapproves a submission, in whole or in part, and notifies Respondents in writing of the deficiencies, Respondents shall within 14 days, or such longer period of time as specified by Ohio EPA in writing, correct the deficiencies and submit the revised submission to Ohio EPA for approval. The revised submission shall incorporate all of the changes, additions, and/or deletions specified by Ohio EPA in its notice of disapproval. Revised submissions shall be accompanied by a letter indicating how and where each of Ohio EPA's comments were incorporated into the submission. Any other changes made to the submission by Respondents shall also be identified in the letter.

If Respondents fail to submit a revised submission incorporating all changes, additions, and/or deletions within 14 days, or such period of time as specified by Ohio EPA in writing, Respondents shall be considered in breach and/or violation of these Orders. If Respondents is in breach and/or violation of these Orders, Ohio EPA retains the right to terminate these Orders, perform any additional investigation, conduct any work to address conditions at the Facility, and/or enforce the terms of these Orders.

VII. TERMINATION

Respondents' obligations under Orders Nos. 1-11 and 30 shall terminate when Respondents certify in writing and demonstrate to the satisfaction of Ohio EPA that Respondents have performed all obligations under these Orders and the Chief of Ohio EPA's Division of Surface Water, acknowledges, in writing, the termination of these Orders. If Ohio EPA does not agree that all obligations have been performed, then Ohio EPA will notify Respondents of the obligations that have not been performed, in which case Respondents shall have an opportunity to address any such deficiencies and seek termination as described above. This certification shall be submitted by Respondents to Ohio EPA and shall be signed by responsible officials of Respondents. For purposes of these Orders, a responsible official is as defined in OAC Rule 3745-33-03(E).

Respondents' obligations under Order Nos. 12-29 and 31 shall terminate when Respondents demonstrate to the satisfaction of Ohio EPA that Respondents have performed all obligations under these Orders, and the Chief of the Division of Materials and Waste Management acknowledges, in writing, the termination of these Orders. If Ohio EPA does not agree that all obligations have been performed, then Ohio EPA will notify Respondents, in writing, of the obligations that have not been performed, in which case Respondents shall have an opportunity to address any such deficiencies and seek termination as described above. This certification shall be submitted by Respondents to Ohio EPA and shall be signed by a responsible official of Respondents. For purposes of these Orders, a responsible official is a principal executive officer of at least the level of vice president or his duly authorized representative, if such a representative is responsible for the overall operation of the Facility.

These certifications shall contain the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

VIII. OTHER CLAIMS

Nothing in these Orders shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or corporation, not a party to these Orders, for any liability arising from, or related to, Respondents' Facility or Property.

IX. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, state, and federal laws and regulations. These Orders do not waive or compromise the applicability and enforcement of any other statutes or regulations applicable to Respondents or the Facility or the Property.

X. ACCESS

Ohio EPA and Trumbull County Health District shall have access at all reasonable times, including during business hours, to the Facility and any other property to which access is required for the implementation of these Orders, to the extent access to the property is controlled by Respondents. Access under these Orders shall be for the purposes of conducting any activity related to these Orders including but not limited to the following:

A. Monitoring the work;

B. Conducting sampling;

C. Inspecting and copying records, operating logs, contracts, and/or other documents related to the implementation of these Orders;

D. Conducting investigations and tests related to the implementation of these Orders; and

E. Verifying any data and/or other information submitted to Ohio EPA.

To the extent that the Facility or any other property to which access is required for the implementation of these Orders is owned or controlled by persons other than Respondents, Respondents shall use its best efforts to secure from such persons access for Respondents and Ohio EPA as necessary to effectuate these Orders. Copies of all access agreements obtained by Respondents shall be provided to Ohio EPA upon request. If any access required to implement these Orders is not obtained within 30 days after the effective date of these Orders, or within 30 days after the date Ohio EPA notifies Respondents in writing that additional access beyond that previously secured is necessary, Respondents shall promptly notify Ohio EPA in writing of the steps Respondents have taken to attempt to obtain access. Ohio EPA may, as it deems appropriate, assist Respondents in obtaining access.

Notwithstanding any provision of these Orders, the State of Ohio retains all of its access rights and authorities, including enforcement authorities related thereto, under any applicable statute or regulation.

XI. MODIFICATIONS

These Orders may be modified by agreement of the parties hereto. Modifications to these Orders shall be in writing and shall be effective on the date entered in the journal of the Director of Ohio EPA.

XII. NOTICE

All documents required by Orders Nos. 1-11 and 30 to be submitted by Respondents pursuant to these Orders shall be addressed to:

Ohio Environmental Protection Agency
Northeast District Office
Division of Surface Water
Attn: DSW Enforcement Unit Supervisor
2110 E. Aurora Road
Twinsburg, OH 44087

or to such persons and addresses as may hereafter be otherwise specified in writing by Ohio EPA.

All documents required by Orders Nos. 12-29 and 31 to be submitted by Respondents pursuant to these Orders shall be addressed to:

Ohio Environmental Protection Agency
Northeast District Office
Division of Materials and Waste Management
2110 E. Aurora Road
Twinsburg, OH 44087-1924

or to such persons and addresses as may hereafter be otherwise specified in writing by Ohio EPA.

XIII. SAMPLING AND DOCUMENT AVAILABILITY

Unless otherwise agreed to by Ohio EPA, Respondents shall notify Ohio EPA not less than 15 days in advance of all sample collection activity. Upon request, Respondents shall allow split and/or duplicate samples to be taken by Ohio EPA or its designated contractor. Ohio EPA shall also have the right to take any additional samples it deems necessary. Upon request, Ohio EPA shall allow Respondents to take split and/or duplicate samples of any samples Ohio EPA takes as part of its oversight of Respondents' implementation of the work required by these Orders.

Ohio EPA may request copies of all documentation required by these Orders including, but not limited to, sampling, tests or other data, including raw data and original laboratory reports, generated by or on behalf of Respondents with respect to the Facility. Within 7 days after Respondents' receipt of a request by Ohio EPA, Respondents shall provide Ohio EPA with a copy of the documentation requested to Ohio EPA. An electronic copy shall also be provided in a format approved by Ohio EPA. Respondents may submit to Ohio EPA any interpretive reports and written explanations concerning the raw data and original laboratory reports. Such interpretive reports and written explanations shall not be submitted in lieu of original laboratory reports and raw data. Should Respondents subsequently discover an error in any report or raw data, Respondents shall promptly notify Ohio EPA of such discovery and provide the correct information. Respondents shall retain all documentation generated as a result of these Orders for a period of at least 30 years following the effective date of these Orders.

XIV. RESERVATION OF RIGHTS

Ohio EPA and Respondents each reserve all rights, privileges and causes of action except as specifically waived in Section XV of these Orders. Nothing contained herein shall be construed to prevent Ohio EPA from seeking legal or equitable relief to enforce the terms of these Orders or from taking other administrative, legal or equitable action as deemed appropriate and necessary, including seeking penalties against Respondents for noncompliance with these Orders.

Ohio EPA expressly reserves the right to take any action and pursue any claim against Respondents or other liable parties with respect to any additional assessment and/or corrective actions necessary to abate or address the impacts to ground water associated with the Facility under ORC Chapter 3714., to perform additional activities pursuant to ORC Chapters 3714., 3734., 6111., or any other applicable law in the future, and to recover response costs incurred by the State of Ohio and/or recover natural resource damages under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"), as amended, 42 U.S.C. 9601 et. seq.

Nothing herein shall restrict the right of Respondents to raise any administrative, legal or equitable claim or defense with respect to such further actions which Ohio EPA may seek to require of Respondents. Nothing in these Orders shall be construed to limit the authority of Ohio EPA to seek relief for violations not addressed in these Orders.

XV. WAIVER

In order to resolve disputed claims, without admission of fact, violation or liability, and in lieu of further enforcement action by Ohio EPA for only the violations specifically cited in these Orders, Respondents consent to the issuance of these Orders and agree to comply with these Orders. Compliance with these Orders shall be a full accord and satisfaction for Respondents' administrative and civil liability for the violations specifically cited herein.

Respondents hereby waive the right to appeal the issuance, terms and conditions, and service of these Orders or of any modified assessment plan, and Respondents hereby waive any and all rights Respondents may have to seek administrative or judicial review of these Orders or of any modified assessment plan either in law or equity.

Notwithstanding the preceding, Ohio EPA and Respondents agree that if these Orders are appealed by any other party to the Environmental Review Appeals Commission, or any court, Respondents retain the right to intervene and participate in such appeal. In such an event, Respondents shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated or modified.

XVI. EFFECTIVE DATE

The effective date of the Orders is the date these Orders are entered into the Ohio EPA Director's Journal.

XVII. SIGNATORY AUTHORITY

Each undersigned representative of a party to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such party to these Orders.

IT IS SO ORDERED AND AGREED:

Ohio Environmental Protection Agency

Craig W. Butler, Director

IT IS SO AGREED:

Signature

11-18-2016
Date

Guy Edwards
Lordstown Construction Recovery, LLC

President
Title

IT IS SO AGREED:

Signature

11-18-2016
Date

Guy Edwards
Lafarge North America, Inc.

CO-President
Title

IT IS SO AGREED:

Signature

11-18-2016
Date

Guy Edwards
The Standard Slag Co.

President
Title

Exhibit A

Odor Control Compliance Plan
Lordstown Construction Recovery

Odor Control Compliance Plan
Lordstown Construction Recovery

This Odor Control Compliance Plan (the "Plan") shall be effective upon the effective date of the Orders. Lordstown Construction Recovery, LLC and Respondents and their successors in interest (Hereinafter "LCR") shall implement odor control corrective measures, to ensure that hydrogen sulfide concentrations at the Facility do not exceed 20 ppb and to abate hydrogen sulfide and other gases created by the design and operation of the Facility that pose a nuisance, cause an offensive odor, or pose a threat to public health, safety or the environment, in accordance with the following schedule:

1. Upon the effective date of the Plan, at the working face, LCR shall apply each day the Facility is open a daily cover consisting of a soil layer, a minimum of six inches thick, or an alternative daily cover upon written approval of the Director of Ohio EPA (the "Director"), at the end of the working day, but in no event shall debris be exposed for more than twenty-four hours after placement at the working face. The minimum six-inch soil layer shall not contain solid waste, C&DD, pulverized debris, sludge, slag, compost, compost product or contaminated soils. The minimum six inch soil layer to be applied at the working face, shall be nonputrescible, shall have a low permeability to water, good compactability, cohesiveness, and relatively uniform texture, and shall not contain large objects in such quantities as may interfere with its application and intended purpose to prevent the emission of hydrogen sulfide or other gases created by the operation of the Facility that pose a nuisance.

2. LCR shall demonstrate to the Director prior to approval and use of alternative daily cover at the working face that the proposed alternative material and thickness provides adequate protection that is comparable to six inches of soil, minimizes infiltration, has low permeability, cohesiveness, is nonputrescible, and does not contain large objects in such quantities as may interfere with its application and intended purpose to prevent the emission of hydrogen sulfide or other gases created by the operation of the Facility that pose a nuisance.

3. To the extent that LCR utilizes an approved alternative daily cover at the working face, LCR will conduct weekly surface scans of the working face for hydrogen sulfide. In the event that a weekly scan of the working face exceeds 20 ppb for hydrogen sulfide following the application of an alternative daily cover approved by the Director, LCR shall cover the working face with a soil layer a minimum of six inches thick.

4. LCR shall not use slag as alternative daily cover without first receiving prior approval in accordance with Section 2 of this plan. Even if LCR obtains prior approval to use slag as alternative daily cover in accordance with Section 2 of this plan, in no event shall LCR use slag as alternative daily cover after six months after the effective date of these Orders and this Plan.

5. Not later than 60 days after the effective date of this Plan, LCR shall perform monthly on-site surface monitoring for hydrogen sulfide using a Jerome meter, or equivalent approved by Ohio EPA, ("Meter") capable of detecting concentrations of hydrogen sulfide at levels of 5 ppb and above over all areas where debris has been placed, including the working face (unless performing weekly scans), areas where a standard cap has been placed in accordance with OAC Rules 3745-400-08 and 3745-400-07 (unless approved to conduct quarterly scans in accordance with Section 9) and all other areas where debris has been placed. For all surface scans, the Meter shall be calibrated, operated, and maintained in accordance with manufacturer's specifications. Surface scanning shall be conducted such that the Meter probe inlet shall be placed within less than six inches of the landfill surface. The performance of surface scans shall be conducted on a monthly basis in a 100 x 100 foot grid ("grid sectors") pattern designed to measure hydrogen sulfide emissions in all phases at the Facility where debris has been placed. When performing scans at the grid sector, LCR shall also identify and conduct a surface scan where surface separation has occurred, and/or where surface odors are identified. Prior to performing surface scans, LCR shall provide to Ohio EPA a plan view drawing depicting the location, latitude and longitude, of the 100 X 100 foot grid sectors where surface scans will be performed, and each grid sector shall be numbered and labelled.

6. LCR shall implement the following specifications of the monitoring and reporting for all surface scans performed in accordance with the Plan:

   A. Prior to performing surface scans, LCR shall notify Ohio EPA of its schedule for performing surface scans.

   B. Not later than the fifteenth day of each month, LCR shall electronically submit to Ohio EPA and the Trumbull County Health District:

      (1) A plan view drawing that shows the location, latitude and longitude, of each monitoring point and the results of all surface scans conducted in the prior month for all hydrogen sulfide concentration values for each grid sector. Hydrogen sulfide concentration value results shall be reported for all monthly scans, weekly scans, and rescans performed following the implementation of an odor control measure, and as applicable for quarterly scans approved in accordance with Section 9; and,

      (2) Summary of action taken to address any exceedances.

7. After completing baseline surface monitoring and application of soil layer as applicable pursuant to Order Number 12, if hydrogen sulfide is detected in any grid sector at a level that exceeds 20 ppb, during surface scans conducted at the Facility LCR shall implement short-term odor control measures to abate hydrogen

sulfide. Such short-term odor control measures shall include any one of the following measures, or any combination thereof:

A. The use of the minimum 6 inches of soils;

B. The use of odor misting or neutralizing technologies;

C. The use of odor control blankets;

D. Other measures to ensure that hydrogen sulfide concentrations in the grid sector do not exceed 20 ppb.

8. Not later than 60 days after the effective date of the Plan, if hydrogen sulfide is detected in a grid sector at a level that exceeds 20 ppb, LCR shall:

A. Perform the following corrective measures in accordance with the indicated progressive schedule:

(1) Within seven days implement odor control measures to address hydrogen sulfide concentrations in that grid sector. The measures may include any one or combination of such short-term measures identified in item 7 of this Plan, or any other measures to address hydrogen sulfide concentrations in the grid sector.

(2) Upon performing the corrective measure and within seven days of a measured exceedance, LCR shall rescan the grid sector to determine whether hydrogen sulfide concentrations exceed 20 ppb at the grid sector.

(3) If the rescan of a grid sector per item 8.A.2. shows the hydrogen sulfide concentration is below 20 ppb, the grid sector will continue to be rescanned on a weekly basis until four consecutive weekly scans show hydrogen sulfide concentrations all remain below 20 ppb, at which time LCR shall resume monthly scans for that grid sector

(4) If any rescan of a grid sector per item 8.A.2. or 8.A.3. shows a second exceedance, within seven days of such exceedance, LCR shall implement odor control measures in accordance item 7 of this Plan, and then repeat the surface scan procedures in accordance with 8.A.2. to determine whether hydrogen sulfide concentrations exceed 20 ppb at the grid sector.

(5) If the rescan of a grid sector shows a third exceedance, within seven days of such exceedance, LCR shall implement odor control measures in accordance with 7. of this Plan, and repeat the surface scan procedures in accordance with item 8.A.2 to determine whether

hydrogen sulfide concentrations exceed 20 ppb at the grid sector.

(6) If the rescan of a grid sector shows a fourth exceedance, in any grid sector, within seven days of such exceedance, LCR shall implement odor control measures in accordance with 7 of this Plan, and repeat the surface scan procedures in accordance with 8.A.2. to determine whether hydrogen sulfide concentrations exceed 20 ppb at that grid sector.

(7) If the rescan of a grid sector shows a fifth consecutive exceedance of hydrogen sulfide concentrations above 20 ppb in any grid sector of the landfill, then LCR shall:

a. Within 24 hours, notify Ohio EPA and the Trumbull County health district of the grid sector location, using latitude and longitude, of the fifth consecutive exceedance; and,

b. Within 120 days construct a standard cap system that includes Flexible Membrane Liner ("FML") for the grid sector, and which extends 100 feet beyond the grid sector in each direction. Following performance of the corrective measure, within seven days, rescan the grid sector of each elevated concentration to determine whether hydrogen sulfide concentrations exceed 20 ppb.

c. Ohio EPA reserves the right and may require Respondents to submit for review and approval a plan to incorporate FML and a gas extraction system into the final cap system design plan for a Phase that contains the grid sector where hydrogen sulfide concentrations exceed 20 ppb after a fifth consecutive exceedance.

B. For purposes of item 8.A., an episode of hydrogen sulfide concentrations that exceeds 20 ppb in any grid sector is considered abated when, after performing a corrective odor control measure in accordance with item 7., four consecutive weekly surface scans demonstrate that hydrogen sulfide concentrations are below 20 ppb in that grid sector. If after the episode is abated in accordance with this Order, a surface scan in that location depicts a measured exceedance of greater than 20 ppb of hydrogen sulfide in that location, that exceedance would be deemed a new episode, triggering a new implementation of corrective measures in accordance with the progressive schedule contained in item 8.A.

9. 12 months after the effective date of the Orders, LCR may submit to Ohio EPA for review and approval a request for the reduction of the frequency of surface scans from monthly surface scans to quarterly surface scans in a grid sector when

hydrogen sulfide concentrations have not exceeded 20 ppb for 6 consecutive months as depicted in monthly surface scans.

10. LCR shall resume monthly surface scans in a grid sector where surface scans have been reduced to a frequency of quarterly surface scans in accordance with Section 9, if during a quarterly surface scan in that grid sector hydrogen sulfide concentrations exceed 20 ppb.

11. If potentially dangerous conditions exist in a grid sector (e.g., areas with snow or ice cover, or overly saturated soil conditions), Respondents may request an exclusion from the requirement to conduct a monthly surface scan in a grid sector. Respondents must obtain written approval from Ohio EPA prior to excluding a grid sector from the requirement to conduct a monthly surface scan in a grid sector. In no case shall a grid sector be excluded from monthly surface scans for a period exceeding ninety (90) days.

12. Ohio EPA and the Trumbull County Health District may perform surface scanning at the Facility to measure hydrogen sulfide emissions from the Facility. Ohio EPA will attempt to provide up to twenty-four (24) hours notice to LCR whenever possible prior to conducting surface scanning at the Facility. Notwithstanding this provision or any provision of these Orders or this plan, the State of Ohio retains all of its access rights and authorities to inspect, investigate, obtain samples, and examine and copy records, under any applicable statute or regulation, including but not limited to ORC Section 3714.08.

13. LCR shall investigate odor complaints which they receive from citizens, attempt to identify the source of the odor, and keep a log of actions taken in response to odor complaints.

14. The odor control compliance plan may be amended by agreement of Respondents and the Director, and shall not require a modification to the Orders. Amendments to the odor control compliance plan shall be in writing, and shall be effective upon the Director's approval of an amended odor control compliance plan.