IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF PENNSYLVANIA

UNITED STATES OF AMERICA and COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, Plaintiffs, v. AMERICAN ZINC RECYCLING CORP., Defendant.	Civil Action No. 3:21-cv-00098-RDM Judge Hon. Robert D. Mariani

CONSENT DECREE

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WHEREAS, Plaintiff United States of America, on behalf of the United States Environmental Protection Agency ("EPA"), has filed a Complaint in this action, alleging that Defendant American Zinc Recycling Corp. ("AZR" or "Defendant") violated the Clean Air Act ("CAA"), 42 U.S.C. §§ 7401 *et seq*., the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. §§ 6901 *et seq.*, the Clean Water Act ("CWA"), 33 U.S.C. §§ 1251 *et seq*, and the Emergency Planning Community Right to Know Act ("EPCRA") 42 U.S.C. §§ 11023 and 11045 at its zinc processing facility located in Palmerton, Pennsylvania.

WHEREAS, Co-Plaintiff Commonwealth of Pennsylvania Department of Environmental Protection ("PADEP") joins in the Complaint, alleging violations of the Pennsylvania Air Pollution Control Act, Act of January 8, 1960, P.L. (1959) 2119, *as amended,* 35 P.S. §§ 4001- 4106 ("APCA"), the Pennsylvania Clean Streams Law, Act of June 22, 1937, P.L. 1987, *as amended,* 35 P.S. §§ 691.1-691.1001 ("CSL"), the Pennsylvania Solid Waste Management Act, Act of July 7, 1980, P.L. 380, *as amended,* 35 P.S. §§ 6018.101-6018.1003 ("SWMA"), Section 1917-A of the Administrative Code of 1929, Act of April 9, 1929, P.L. 177, *as amended*, 71 P.S. § 510-17, and the rules and regulations promulgated under those statutes;

WHEREAS, the Complaint alleges that AZR violated the CAA and AZR's

Title V Permit, issued pursuant to 42 U.S.C. §§ 7661-7661(f), 40 C.F.R. Part 70 and the Pennsylvania Title V Program (25 Pa. Code Subchapter G §§ 127.501-127.543 and §§ 127.401-464), the Pennsylvania State Implementation Plan ("SIP") at 40 C.F.R. § 52.2020, and a 2004 Plan Approval issued by PADEP on September 24, 2004 (Plan Approval No. 13-308-104) pursuant to the federally approved Pennsylvania SIP;

WHEREAS, the Complaint also alleges that AZR violated Section 3008(a) and (g) of RCRA, 42 U.S.C. § 6928(a) and (g), and applicable regulations promulgated thereunder and the terms of its State-issued RCRA Permit;

WHEREAS, the Complaint alleges that AZR violated the terms of its National Pollutant Discharge Elimination System ("NPDES") Permit issued by PADEP pursuant to Section 402 of the CWA, 33 U.S.C. § 1342; that AZR discharged from Outfalls 004 and 005 into Aquashicola Creek in violation of the Facility's NPDES Permit and the CWA; and that AZR failed to comply with certain Spill Prevention, Control and Countermeasure ("SPCC") Regulations promulgated pursuant to Section 311(j) of the CWA, 33 U.S.C. § 1321(j);

WHEREAS, Plaintiff United States also alleges that AZR violated EPCRA Section 313, and the regulations promulgated thereunder;

WHEREAS, the United States, PADEP, and Horsehead Industries, Inc. are parties to a Consent Decree entered by the United States District Court for the

Middle District of Pennsylvania in Civil Action No. 1:CV-92-008 on November 13, 1995 (the "1995 Consent Decree"), governing AZR's industrial facility in Palmerton, Pennsylvania, and AZR subsequently assumed the responsibilities of Horsehead Industries, Inc. under the 1995 Consent Decree;

WHEREAS, the United States and PADEP allege that AZR has violated certain provisions of the 1995 Consent Decree;

WHEREAS, the parties intend for this Consent Decree to replace and supersede the 1995 Consent Decree and intend to seek termination of the 1995 Consent Decree, but the termination of the 1995 Consent Decree would not take effect unless and until this Consent Decree has been entered by the Court;

WHEREAS, EPA issued to AZR a Notice of Violation/Notice of Noncompliance, dated April 24, 2017, asserting that AZR's operations at the Palmerton Facility resulted in non-compliance with certain requirements of the: (i) CAA, 42 U.S.C. § 7401 *et seq.*, and corresponding federal regulations; (ii) the Pennsylvania APCA, 35 P.S. § 4001 *et seq.*, and corresponding Pennsylvania regulations; and (iii) the Title V air quality operating permit issued for the Facility;

WHEREAS, by entering into this Consent Decree Defendant does not admit that it violated any statutory, regulatory, or permit requirement or requirements applicable under the 1995 Consent Decree or that it is liable for civil penalties and injunctive relief, including as alleged in the Complaint;

WHEREAS, the Parties recognize, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and will avoid litigation among the Parties and that this Consent Decree is fair, reasonable, and in the public interest;

NOW, THEREFORE, before the taking of any testimony, without the adjudication or admission of any issue of fact or law except as provided in Sections I and II of this Consent Decree, with the consent of the Parties, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action, pursuant to 28 U.S.C. §§ 1331, 1345, and 1355, and Section 113(b) of the CAA, 42 U.S.C. § 7413(b), Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), Section 301 of the CWA, 33 U.S.C. § 1311, 1319(b), 1321(b)(7)(E), Section 1423(b) of the SDWA, 42 U.S.C. § 300h-2(b), and Section 325 of EPCRA, 42 U.S.C. § 11045, and over the Parties.

2. Venue lies in this District pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), Section 301 of the CWA, 33 U.S.C. § 1311, Section 1423(b) of the SDWA, 42 U.S.C. § 300h-2(b), Section 325 of EPCRA, 42 U.S.C. § 11045, and 28 U.S.C. §§1391(b) and 1395(a), because the violations alleged in the Complaint are alleged to have

occurred in, and Defendant conducts business in, this judicial district. For purposes of this Decree, or any action to enforce this Decree, Defendant consents to the Court's jurisdiction over this Decree, this action and Defendant and consents to venue in this judicial district.

3. For purposes of this Consent Decree, Defendant agrees that the Complaint states claims upon which relief may be granted pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), Section 301 of the CWA, 33 U.S.C. § 1311, Section 1423(a) and (b) of the SDWA, 42 U.S.C. §§ 300h-2(a) and (b), and Section 325 of EPCRA, 42 U.S.C. § 11045.

II. APPLICABILITY

4. The obligations of this Consent Decree apply to and are binding upon the United States and PADEP, and upon the Defendant and any successors, assigns, or other entities or persons otherwise bound by law.

5. No transfer of ownership or operation of the Facility, whether in compliance with the procedures of this Paragraph or otherwise, shall relieve Defendant of its obligation to ensure that the terms of the Decree are implemented unless: (a) the transferee agrees in writing to undertake the obligations of this Decree and to be substituted for the Defendant as a Party under the Decree and thus be bound by the terms thereof; and (b) the United States, after consultation

with PADEP, consents to relieve Defendant of its obligations or this Court enters a modification to this Consent Decree through the process set forth in Paragraphs 6 and 7, below. At least thirty (30) Days prior to such transfer, Defendant shall provide a copy of this Consent Decree to the proposed transferee, and shall simultaneously provide written notice of the prospective transfer, together with a copy of the proposed written agreement, to EPA Region 3, the United States Attorney for the Middle District of Pennsylvania, the United States Department of Justice, and PADEP, in accordance with Section XVI of this Decree (Notices). Defendant may assert that the written agreement contains confidential business information pursuant to 40 C.F.R. Part 2. Any such assertion shall comply with the requirements and procedures of 40 C.F.R. Part 2. Any attempt to transfer ownership or operation of the Facilities without complying with this Paragraph 5 constitutes a violation of this Decree.

6. After the submission of the notice required by Paragraph 5, above, Defendant may request in writing that the United States and PADEP agree to filing of a joint motion to modify this Consent Decree to substitute the transferee for Defendant as the Party responsible for complying with all or some of the terms and conditions of this Consent Decree. The United States and PADEP may consent to the joint motion or they shall notify Defendant in writing that the United States and PADEP do not agree to the filing of the joint motion as requested.

7. If the United States and PADEP do not agree to filing of the joint motion within ninety (90) Days of receipt of Defendant's request pursuant to Paragraph 6, above, then Defendant and the transferee may file, without the agreement of the United States and PADEP, a motion seeking modification of this Consent Decree to substitute the transferee for the Defendant as the party responsible for complying with some or all obligations of this Consent Decree. The United States and PADEP may oppose the motion on grounds that: (a) the transferee lacks the financial or technical ability to assume the obligations of the Decree; (b) the proposed modification fails to transfer effectively the Consent Decree's obligations to the transferee; or (c) for any other good cause.

8. Defendant shall provide an electronic or hard copy of this Consent Decree to its officers, employees, contractors, and agents whose duties might reasonably include compliance with any provision of this Decree. In addition, Defendant shall ensure that any contractors retained to perform work required under this Consent Decree are notified in writing of this Consent Decree and the specific requirements of this Consent Decree that fall within their duties. Defendant shall condition any such contract upon performance of the work in conformity with the terms of this Consent Decree, and upon the contractor providing training of the contractor's personnel relating to the individual's responsibilities in accordance with this Consent Decree. Copies of this Consent

Decree need not be provided to firms that are retained solely to supply materials or equipment to Defendant to satisfy requirements of this Consent Decree.

9. In any action to enforce this Consent Decree, Defendant shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree.

III. DEFINITIONS

10. Terms used in this Consent Decree that are defined in the CAA, RCRA, CWA, EPCRA, SDWA and Pennsylvania APCA, SWMA and CSL, or in regulations promulgated pursuant to these statutes, shall have the meanings assigned to them in the statutes or such regulations, unless otherwise provided in this Consent Decree. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:

"1995 Consent Decree" shall mean the consent decree entered on November 13, 1995, in *United States and PADEP v. Horsehead Resource Development Company, Inc. and Horsehead Industries, Inc.*, Civil Action No. 92-cv-0008 (M.D. Pa.);

"Baghouse" shall mean an air pollution control device, other than a "Product Collector" as that term is used in the Facility's Title V Permit, that

utilizes fabric filtration to remove particles from the gas stream by depositing the particles on fabric material;

"Bypass" shall mean the intentional diversion of waste streams from any portion of a treatment facility as provided in 40 C.F.R. §122.41(m);

"Calcining" shall mean the heat distillation process that further increases the zinc content of the Waelz Oxide (WOx) (also known as CZO), by processing it to zinc calcine and Lead Concentrate (also known as Lead Chloride);

"Calcining Feed Material" or "Calcine Feed Material" shall mean any material, other than CZO, processed during Calcining to produce zinc calcine and Lead Concentrate;

"Complaint" shall mean the complaint filed by the United States and PADEP in this action;

"Consent Decree" or "Decree" shall mean this Decree and all appendices attached hereto listed in Section XXVI;

"Contact Cooling Water" shall mean any water that comes into contact with any raw material, intermediate material, final product, co-product, by-product, or solid waste, for the purposes of cooling or quenching;

"Containment Building Requirements" shall mean the containment building requirements and standards set forth in 25 Pa. Code § 264a.1, which incorporates by reference 40 C.F.R. Part 264 Subpart DD;

"Continuous Data Collection" or "Continuous Monitoring" shall mean monitoring or recording at the frequency described in, and in accordance with, Paragraph 80 of this Consent Decree.

"Continuous Opacity Monitoring Systems" or COMS mean the total system and all equipment required for the determination of opacity of emissions, which meets the minimum requirements of Performance Specification 1 of 40 C.F.R. Part 60 or any future revision or replacement thereof;

"Crude Zinc Oxide" or "CZO" (also known as Waelz Oxide or WOx) shall mean material that contains zinc and may contain other materials such as lead, cadmium and/or other metals, and resulting from Waelzing of Electric Arc Furnace Dust and/or other materials;

"Date of Lodging" shall mean the date this Consent Decree is lodged with the Court for public comment;

"Day" shall mean a calendar day unless expressly stated to be a business day. In computing any period of time under this Consent Decree, where the last Day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next business day;

"Defendant" shall mean American Zinc Recycling Corporation;

"EPA" shall mean the United States Environmental Protection Agency and any of its successor departments or agencies;

"Effective Date" shall have the definition provided in Section XVII;

"Electric Arc Furnace Dust" or "EAF Dust" shall mean emission control dust/sludge from the primary production of steel in electric furnaces;

"Emissions Test," "Emissions Testing," or "Stack Test" shall mean any performance testing conducted for the purposes of determining and demonstrating compliance, and in accordance with Section V.C. of this Consent Decree (Clean Air Act Compliance Requirements);

"Federal Hazardous Waste Requirements" or "Federal HW Requirements" shall mean 1) the EPA authorized Pennsylvania hazardous waste management program (effective January 30, 1986 (51 Fed. Reg. 1791 (January 15, 1986)), and reauthorized, see 65 Fed. Reg. 57734 (September 26, 2000), 69 Fed. Reg. 2674 (January 20, 2004) and 74 Fed. Reg. 19453 (April 29, 2009)); 2) and any requirements imposed under any Pennsylvania hazardous waste management program subsequently authorized by EPA pursuant to Section 3006 of RCRA, 42 U.S.C. § 6926; and/or 3) the federal hazardous waste regulations codified at 40 C.F.R. Parts 260 through 270 which are directly applicable in Pennsylvania;

"Feed Rate" shall mean the rate of input material to any process device, expressed in mass per unit time;

"Fugitive Dust Control Plan" shall mean the Palmerton Facility Fugitive Dust Control Plan attached to this Consent Decree as Appendix A;

"Iron Rich Material" or "IRM" shall mean iron rich slag material resulting from the processing of Electric Arc Furnace Dust and/or other materials in Waelzing kilns or similar units;

"Iron-Rich Material Pad" or "IRM Pad" shall mean the area depicted in the site map attached hereto as Appendix B;

"Kiln" shall mean the process device where the heat distillation of the input materials, such as pelletized EAF dust and WOx (also known as CZO), occurs;

"Lead Concentrate" (also known as "Lead Chloride") shall mean the lead-containing material resulting from Calcining of Crude Zinc Oxide and/or other Calcine Feed Material in Calcining kilns or similar units and containing cadmium and chloride compounds;

"Lime Bunker" shall mean the three-sided, roofed structure to the east of Building 608 at the Facility as depicted in the site map attached hereto as Appendix B;

"NPDES" means the National Pollutant Discharge Elimination System as established under Section 402 of the CWA, 33 U.S.C. § 1342, and includes any state program that has received authority to implement the program pursuant to Section 402(b) of the CWA, 33 U.S.C. § 1342(b);

"NPDES Permit" shall mean the Permit for the Palmerton Facility

most recently issued to Defendant by PADEP, PA0064378, on June 2, 2011, and administratively extended in 2016, as may be renewed or amended;

"Non-Contact Cooling Water" shall mean water used to reduce temperature which does not come into direct contact with any raw material, intermediate material, product, byproduct, or waste;

"PaDEP" or "PADEP" shall mean the Commonwealth of Pennsylvania Department of Environmental Protection;

"PAHWMR" shall mean the Pennsylvania Hazardous Waste Management Regulations, codified at 25 Pa. Code Article VII (entitled Hazardous Waste Management);

"Palmerton Facility" or "Facility" shall mean the zinc processing Facility operated by AZR and located in Palmerton, PA, as depicted in Appendix B hereto;

"Palmerton Storage Facility" shall mean the areas listed as comprising the Palmerton Storage Facility in the Facility's RCRA Permit, as may be renewed or amended;

"Paragraph" shall mean a portion of this Decree identified by an Arabic numeral;

"Parties" shall mean the United States, PADEP, and the Defendant;

"Particulate Matter" shall mean a complex mixture of particles

and liquid droplets that get into the air and that includes both filterable and condensable particulates;

"Process Water" shall mean any water utilized in the Palmerton Facility's industrial processes, Contact Cooling Water, water utilized for pelletizing EAF Dust, and truck wash water;

"Product Collector" shall mean an air pollution control device used by AZR to collect particles that are considered product by AZR. The Facility's March 25, 2014 Title V Permit identifies four (4) Product Collectors, labeled as C04, C05, C07, C16;

"Professional Engineer" shall mean a Pennsylvania licensed Professional Engineer;

"RCRA Permit" shall mean Hazardous Waste Treatment, Storage and/or Disposal Facility Permit, No. PAD002395887, most recently issued by PADEP to Defendant on October 10, 2006, and subsequently administratively extended, as may be renewed or amended;

"Section" shall mean a portion of this Decree identified by a Roman numeral;

"Settling Basins" shall mean the units as depicted in the site map attached hereto as Appendix B;

"Significant Spills and Leaks" shall include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under CWA Section 311 (see 40 CFR 110.6 and 40 CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9602;

"State" shall mean the Commonwealth of Pennsylvania;

"Supersack" shall mean a woven polypropylene or polyester based, lined container holding forty to sixty cubic feet of material and meeting the standards of 25 Pa. Code Chapter 264a, Subchapter I;

"Title V Permit" shall mean the source or Facility Operating Permit No. 13-00001, most recently issued by PADEP to Defendant on March 25, 2014, and subsequently administratively extended, as may be renewed or amended pursuant to Title V of the CAA, 42 U.S.C. §§ 7661 – 7661f;

"UIC" shall mean underground injection control under the SDWA;

"UICCP" shall mean the Underground Injection Control Closure Plan;

"UIC Class IV well" shall have the meaning provided in 40 C.F.R. § 144.6(d);

"United States" shall mean the United States of America, acting on behalf of EPA;

"Upkiln Temperature" shall mean the temperature in degrees Centigrade monitored in the charge bed, near the beginning of the zinc fuming zone in the Waelz kiln;

"Waelzing" shall mean the heat distillation process that increases the zinc content of the zinc-bearing feed materials, such as EAF Dust and/or ZRM by processing them to Waelz Oxide ("WOx") (also known as CZO) and IRM;

"Zinc-Rich Material" or "ZRM" shall mean a Waelzing feedstock that contains zinc, lead, and/or cadmium and is a characteristic hazardous waste bearing waste codes D006 and D008.

IV. CIVIL PENALTY

11. By no later than thirty (30) Days after the Effective Date, Defendant shall pay the sum of three million, three hundred thousand dollars ($3,300,000) as a civil penalty. The civil penalty shall be divided evenly between and paid to the United States and PADEP as follows: $1,650,000.00 to the United States of which $48,000.00 will be deposited in the Oil Spill Liability Trust Fund pursuant to Section 311(s) of the CWA, 33 U.S.C. § 1321(s) and 26 U.S.C. § 9609(b)(8); and $1,650,000.00 to PADEP.

12. Defendant shall pay the civil penalty due to the United States by FedWire Electronic Funds Transfer ("EFT") to the U.S. Department of Justice

account, in accordance with instructions provided to Defendant by the Financial Litigation Unit ("FLU") of the United States Attorney's Office for the Middle District of Pennsylvania after the Effective Date. The payment instructions provided by the FLU will include a Consolidated Debt Collection System ("CDCS") number, which Defendant shall use to identify all payments required to be made in accordance with this Consent Decree. The FLU will provide the payment instructions to:

- Name: R. Bruce Morgan, V.P. – HR, EH&S
- Address: 3000 GSK Drive, Suite 201, Moon Township, Pennsylvania 15108
- Phone number: (724) 773-2202
- Email address: bmorgan@azr.com

13. Defendant may change the individual to receive payment instructions on its behalf by providing written notice of such change to the United States and EPA in accordance with Section XVI (Notices).

14. At the time of payment, Defendant shall send notice that payment has been made: (i) to EPA via email at cinwd_acctsreceivable@epa.gov or via regular mail at EPA Cincinnati Finance Office, 26 W. Martin Luther King Drive, Cincinnati, Ohio 45268; and (ii) to the United States via email or regular mail in accordance with Section XVI (Notices); and (iii) to EPA in accordance with Section XVI (Notices). Such notice shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in

United States and Commonwealth of Pennsylvania Department of Environmental Protection v. American Zinc Recycling Corp. and shall reference the civil action number, CDCS Number, and DOJ case number 90-11-3-11529/1.

15. Defendant shall not deduct any penalties paid under this Decree pursuant to this Section or Section X (Stipulated Penalties) in calculating its federal, State, or local income tax.

16. If any portion of the civil penalty is not paid when due, Defendant shall pay interest accruing from the Effective Date through the date of payment at the rate specified in 28 U.S.C. § 1961. Any payment of interest made pursuant to this Paragraph 16 shall be in addition to any stipulated penalty due under Section X (Stipulated Penalties) of this Consent Decree.

17. Payments required to be made to PADEP pursuant to the requirements of this Consent Decree shall be made by corporate check or similar instrument as follows:

a. Air Quality Program

A payment of $726,000.00 shall be made payable to the "Commonwealth of Pennsylvania, Clean Air Fund," pursuant to 35 P.S. § 4009.1, and sent to Air Quality Program Manager, Department of Environmental Protection, Air Quality Program, 2 Public Square, Wilkes-Barre, PA 18701-1915.

b. Waste Management Program

A payment of $643,500.00 shall be made payable to the "Commonwealth of Pennsylvania, Solid Waste Abatement Fund," pursuant to 35 P.S. § 6018.701, and sent to Waste Management Program Manager, Department of Environmental Protection, Waste Management Program, 2 Public Square, Wilkes-Barre, PA 18701-1915.

c. Clean Water Program

A payment of $280,500.00 shall be made payable to the "Commonwealth of Pennsylvania, Clean Water Fund, " pursuant to 35 P.S. § 691.8, and sent to Clean Water Program Manager, Department of Environmental Protection, Clean Water Program, 2 Public Square, Wilkes-Barre, PA 18701-1915.

V. COMPLIANCE REQUIREMENTS

A. Clean Water Act Compliance Requirements

1. Investigation

18. Investigation of Stormwater, Process Water, and Non-Contact Cooling Water Systems. By no later than thirty (30) Days after the Effective Date, AZR shall submit to EPA for approval pursuant to Section VI (Approval of Deliverables), a scope of work ("SOW") for the investigation of the stormwater, Process Water, and Non-Contact Cooling Water systems at the Palmerton Facility, as described in this Paragraph 18. The SOW shall

include the following:

a. Schedule for implementation of the SOW;

b. A plan for the use of dye testing, smoke testing, cameras, or similar methods as necessary to generate a complete and accurate map of the Facility's stormwater, Process Water, and Non-Contact Cooling Water systems leading to Outfall 004 and Outfall 005, including any connections between these systems. If the investigations identify any outfall not previously identified in the NPDES Permit, then the investigation shall also extend to direct observation of the pipes or other conveyances leading to such additional outfall;

c. An inventory of materials used, stored, or staged at the Facility in all areas exposed to precipitation and stormwater runoff;

d. An inventory of all sources of stormwater, wastewater, ground water, Process Water, and Non-Contact Cooling Water from the Facility, whether treated or untreated, contributing to Outfall 004 and Outfall 005; and

e. Identification of any stormwater, Process Water, and Non-Contact Cooling Water which does not discharge at Outfall 004 or Outfall 005, including, but not limited to, any stormwater runoff into the railroad bed immediately north of the Kilns, stormwater runoff that infiltrates into French drains, or stormwater runoff that is discharged through other outfalls.

19. Within seven (7) Days of receipt of EPA's written approval of the SOW, AZR shall commence implementation of the SOW in accordance with the EPA-approved schedule.

20. Modification of SOW: If, following EPA approval of the SOW, new information is discovered or developed, AZR shall notify EPA and PADEP of the new information within ten (10) Days of such discovery or

development. In the event that EPA and AZR agree that the new information discovered or developed requires a change to the EPA-approved SOW, AZR shall submit, within thirty (30) Days of reaching such agreement in writing (or such other timeframe as may be approved in writing by EPA), a proposed modification of the SOW, or a specific provision in the SOW, to EPA for approval pursuant to Section VI (Approval of Deliverables). Any disagreement as to whether the EPA-approved SOW needs modification shall be the subject of dispute resolution. Any modification request shall be accompanied by all supporting data and information relied upon in the modified proposal and, if a date in a previously approved schedule would be affected by the proposed modification, the proposal must set forth a new schedule for written approval.

21. Stormwater, Process Water, and Non-Contact Cooling Water Investigation Report. Within sixty (60) Days of completing the work identified in the approved SOW in accordance with the approved schedule, AZR shall submit a report to EPA for approval pursuant to Section VI (Approval of Deliverables). The Stormwater, Process Water, and Non-Contact Cooling Water Investigation Report shall contain:

a. a summary of the results of the stormwater, Process Water, and Non-Contact Cooling Water systems investigation required by Paragraph 18.b. and e. of this Consent Decree;

b. The investigation's methods and data;

c. A detailed and accurate scaled map (or series of maps at the same scale) of the Facility's stormwater, Process Water, and Non-Contact Cooling Water systems. Information displayed on this map (or maps) shall include the following (active or inactive): pipes, swales, sluices, other above or below-ground conveyances such as hoses or tunnels, outfalls, discharge points, manholes, basins, sumps (whether open, closed, or plugged), inlets, above-ground or below-ground tanks, pumps, lift stations, treatment units (e.g. settling tanks, clarifiers, flocculation tanks, screens, pH adjustment or chemical additive point), overflows, bypasses, weirs, meters (for the measurement or recording of water volume, flow, pH, temperature, turbidity, or other water quality parameters), supply wells, injection wells, French drains, infiltration galleries or trenches, hydrants, valves, sampling points, any connections between the Palmerton Facility's stormwater systems, Process Water, and Non-Contact Cooling Water systems, any connections of the Palmerton Facility's stormwater, Process Water, or Non-Contact Cooling Water systems with sanitary sewer systems, other storm sewer systems, or public drinking water systems, stormwater flow paths, and shall include the locations of the items identified in the inventories developed pursuant to Paragraphs 18.c. and d., above;

d. The inventory of materials used, stored, or staged at the Facility in all areas exposed to precipitation and stormwater runoff as required by Paragraph 18.c. of this Consent Decree;

e. The inventory of all contributing sources of effluent to outfalls 004 and 005, as required Paragraph 18.d. of this Consent Decree;

f. A proposal for corrective measures, including a schedule for implementation, to eliminate or re-direct effluents from Process Water, Non-Contact Cooling Water, or stormwater discharges from industrial activity that contribute to outfall 004, or any other outfall located at the Palmerton Facility, that have been found to bypass the Palmerton Facility's treatment works, or to reconfigure any existing

piping or valve configuration that would enable the bypass of such discharge from the Palmerton Facility's treatment works; and

g. A proposal for corrective measures to manage, divert, or treat stormwater from the Kiln areas which is contaminated by contact with Kiln brick, Kiln rubble, or other process materials or wastes, that flows into the railroad bed immediately north of the Kilns.

22. Upon receipt of EPA's written approval of the Stormwater, Process Water, and Non-Contact Cooling Water Investigation Report, AZR shall commence implementation of the corrective measures in accordance with the schedule identified in the Stormwater, Process Water, and Non-Contact Cooling Water Investigation Report.

23. Representative Stormwater Sampling Plan. Within seven (7) Days of the Effective Date, AZR shall submit to EPA for approval pursuant to Section VI (Approval of Deliverables), a plan for representative sampling of stormwater discharges from the Palmerton Facility ("Representative Sampling Plan"). The Representative Sampling Plan shall provide for sampling to be conducted quarterly under the Representative Sampling Plan. The Representative Sampling Plan shall include the following:

a. Specified representative sampling locations for each stormwater outfall;

b. The procedure to collect grab samples of stormwater discharges at outfalls. The written procedure shall provide that grab samples shall

be collected from discharges resulting from a storm event that is equal to or greater than 0.1 inch in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1inch rainfall) storm event. The 72-hour storm interval is waived when the preceding storm did not yield a measurable discharge, or if the Facility is able to document that a less than 72-hour interval is representative for local storm events during the sample period. All grab samples shall be taken within the first 30 minutes of a discharge, unless the Facility determines that this is not practicable (including for safety reasons), in which case grab samples must be collected as soon as practicable after the first 30 minutes of a discharge and AZR shall document why it was not practicable to collect samples within the first 30 minutes of any discharge;

c. A procedure to ensure prompt analysis of grab samples, by using a laboratory certified by PADEP for wastewater analyses, using approved methods in 40 C.F.R. Part 136, for total zinc, total lead, and total cadmium, Total Suspended Solids, and Oil and Grease. The procedure shall also provide for the pH of the stormwater discharge to be measured in the field, using an approved method from 40 CFR Part 136.

24. AZR shall commence implementation of the Representative Sampling Plan within ten (10) Days of receipt of EPA's written approval pursuant to Section VI of this Consent Decree (Approval of Deliverables).

2. <u>CWA Stormwater Compliance Requirements</u>

25. <u>Stormwater Pollution Prevention Plan</u>. Within sixty (60) days of the Date of Lodging, AZR shall implement the Palmerton Facility's Stormwater Pollution Prevention Plan (SWPPP), attached hereto as Appendix C, until

such time as EPA approves an updated SWPPP developed in accordance with Paragraph 26.

26. No later than sixty (60) Days from the date upon which EPA has approved the Stormwater Process Water and Non-Contact Cooling Water Investigation Report, AZR shall submit an updated SWPPP to EPA for approval pursuant to Section VI (Approval of Deliverables). Information developed and reported through the Stormwater, Process Water, and Non-Contact Cooling Water Investigation Report shall be used to complete/update the SWPPP. The updated SWPPP shall include the following elements:

a. A Facility description and contact information, including a detailed site map with the following components:

i. Boundaries of the property and the size of the property in acres;

ii. Location and extent of significant structures and impervious surfaces;

iii. Directions of stormwater flow (use arrows);

iv. Locations of all stormwater control measures;

v. Locations of all receiving waters, including wetlands, in the immediate vicinity of your Facility with their classification listed in PA Code Title 25, Chapter 93. Indicate which waterbodies are listed as impaired, including the pollutants impairing those waters;

vi. Locations of all stormwater collection structures and conveyances, including catch-basins, ditches, pipes, swales and impoundments;

vii. Locations of potential pollutant sources;

viii. Locations where significant spills or leaks have occurred or have the potential to occur; and enhanced control, containment, or treatment facilities on site;

ix. Locations of all representative stormwater monitoring and sampling points;

x. Locations of stormwater inlets, catch basins, and discharge points, with a unique identification code for each discharge point (e.g., Discharge points 1, 2, 3, etc.), and an approximate outline of the areas draining to each discharge point;

xi. Locations of the following activities where such activities are exposed to precipitation:

1. Fueling stations;

2. vehicle and equipment maintenance and/or cleaning areas;

3. loading/unloading areas;

4. locations used for the treatment, storage or disposal of wastes;

5. liquid storage tanks;

6. processing and storage areas;

7. immediate access roads and all existing rail lines;

8. transfer areas for substances in bulk;

9. machinery; and

10. locations and sources of run-on to the Palmerton Facility from adjacent property that contains significant quantities of pollutants.

b. AZR shall identify the staff members, by name or title, that comprise the Palmerton Facility's stormwater pollution prevention team, as well as their individual responsibilities. The Palmerton Facility stormwater pollution prevention team is responsible for overseeing development of the SWPPP, any modifications to the SWPPP, implementing and maintaining control measures, and taking corrective actions when required. Each member of the stormwater pollution prevention team must have ready access to either an electronic or paper copy of applicable portions of the most updated copy of the SWPPP, and/or other relevant information that must be kept with the SWPPP;

c. AZR shall ensure that the SWPPP identifies the industrial activities exposed to stormwater; identifies pollutants or pollutant constituents associated with each identified activity; identifies areas when potential spills and leaks could occur and corresponding outfalls that would be affected; documents all significant spills and/or leaks of oil and/or toxic or hazardous substances that actually occurred at exposed areas, or that drained to a stormwater conveyance in the past three (3) years; documents evaluation for non-stormwater discharges; documents location of any salt storage piles; and, summarizes all stormwater discharge sampling data;

d. AZR shall ensure that the updated SWPPP describes all stormwater control measures required by Paragraphs 29 - 33 of this Consent Decree, and documents the location and type of control measures specifically chosen and/or designed for the Palmerton Facility;

e. AZR shall ensure that the SWPPP includes schedules and procedures for the following:

i. maintaining good housekeeping practices;

ii. preventative maintenance including regular inspections, testing, maintenance and repair of all control measures;

iii. spill prevention and response;

iv. erosion and sediment controls; and

v. employee training.

f. AZR shall describe procedures for performing quarterly Facility stormwater inspections and shall submit the quarterly inspection reports with the semi-annual reports required by Paragraph 124. Quarterly stormwater inspection reports shall include, at a minimum, the following:

i. The inspection date and time;

ii. The name(s) and signature(s) of the inspector(s);

iii. Weather information;

iv. All observations relating to the implementation of control measures at the Facility, including: a description of any discharges occurring at the time of the inspection; any previously unidentified discharges from and/or pollutants at the site; any evidence of, or the potential for, pollutants entering the drainage system; observations regarding the physical condition of and around all outfalls, including any flow dissipation devices; and evidence of pollutants in discharges and/or the receiving water;

v. Any control measures needing maintenance, repairs, or replacement; and

vi. Housekeeping conditions in accordance with Paragraph 33 of this Consent Decree.

g. AZR shall describe procedures for conducting quarterly visual monitoring of stormwater discharges and shall submit the results of the quarterly visual monitoring in reports submitted with the semi-annual reports required by Paragraph 124. AZR may use a grab sample collected for the purpose of quarterly visual monitoring for its

quarterly representative stormwater sample, as required by Paragraph 23 of this Consent Decree. Quarterly visual monitoring of stormwater discharges shall include, at a minimum:

i. Quarterly, a grab sample in a clean, colorless glass or plastic container, and collected within the first 30 minutes of an actual discharge from a storm event and examined in a well-lit area. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and AZR shall document why it was not practicable to take the sample within the first 30 minutes. In the case of snowmelt, samples must be taken during a period with a measurable discharge from the site;

ii. For storm events, quarterly visual monitoring shall be for discharges that occur at least 72 hours (three Days) from the previous discharge. The 72-hour (three-Day) storm interval does not apply if AZR documents that less than a 72-hour (three-Day) interval is representative for local storm events during the sampling period; and

iii. AZR shall visually inspect or observe the sample for the following water quality characteristics: Color; Odor; Clarity (diminished); Floating solids; Settled solids; Suspended solids; Foam; Oil sheen; and other obvious indicators of stormwater pollution, and report the results of quarterly visual monitoring with the semi-annual reports required by Paragraph 124 of this Consent Decree.

27. Upon receipt of EPA's written approval, AZR shall commence implementation of the updated SWPPP.

3. Stormwater Control Measures

28. No later than seven (7) Days after receipt of EPA's written approval of the updated SWPPP pursuant to Paragraph 26, above, AZR shall commence

implementation of the measures required by Paragraphs 29-33 of this Consent Decree.

29. AZR shall select, design, install and implement control measures to minimize pollutant discharges. The selection, design, installation and implementation of these control measures shall be in accordance with good engineering practices and include the actions described in Paragraphs 30-33, below.

30. AZR shall design and implement control measures and infrastructure to ensure stormwater is not contaminated with hazardous waste (e.g., Kiln brick or Kiln rubble materials) or Process Water (e.g., Contact Cooling Water).

31. AZR shall collect and contain all Contact Cooling Water within a containment structure designed to capture Contact Cooling Water and to prevent the deposition or flow of Contact Cooling Water outside of the containment structure and to ensure that Contact Cooling Water is not allowed to mix with stormwater runoff.

32. Defendant shall maintain and operate all stormwater control measures in effective operating condition. This includes but is not limited to: performing inspections and preventive maintenance of stormwater drainage, stormwater source controls and treatment systems; diligently maintaining non-structural

controls; and cleaning catch basins and keeping the debris surface at least six inches below the lowest outlet pipe.

33. Defendant shall control runoff from spills/leaks, waste disposal, waste storage, and sediment by diverting, reusing, containing, or otherwise reducing stormwater runoff to minimize pollutants in discharges, and document such in a spill response plan.

34. Within thirty (30) Days of EPA's approval of the Stormwater, Process Water, and Non-Contact Cooling Water Investigation Report, AZR shall submit to EPA and PADEP a report of the results of AZR's investigation, required by Paragraph 18.e., of any stormwater runoff into the railroad bed immediately north of the Kilns and any stormwater runoff that infiltrates into French drains ("Infiltration Investigation Report"). AZR shall also include within the Infiltration Investigation Report AZR's analysis, in accordance with applicable UIC regulations, of the possible presence of an unauthorized UIC well at the location designated on the Facility map in Appendix B to this Consent Decree.

35. In the event that AZR's infiltration investigation analysis reveals that an unauthorized UIC well is present at the referenced location, then AZR shall include within the Infiltration Investigation Report a plan, including a proposed schedule, for permitting, plugging, or otherwise closing the

unauthorized UIC well in accordance with applicable federal regulations ("UIC Management Plan"). EPA will review and approve, or disapprove, the UIC Management Plan. Notwithstanding Section VI of this Consent Decree (Approval of Deliverables), AZR shall complete any required revisions to a disapproved UIC Management Plan within fourteen (14) Days of AZR's receipt of written notice that the UIC Management Plan has been disapproved. Within ten (10) Days after receipt of EPA's written approval of the UIC Management Plan, AZR shall commence implementation of the UIC Management Plan in accordance with the approved schedule.

36. Within thirty (30) Days of completion of implementation of the UIC Management Plan, AZR shall submit to EPA a Final UIC Report, with documentation of all activity performed in accordance with the UIC Management Plan. To the extent that the UIC Management Plan provides for closure of the UIC well, the Final UIC Report shall include a narrative statement describing the closure procedures, photographic documentation of all closure activities, and confirmatory sample results and any waste manifests of the closure of the injection well in a manner that protects underground sources of drinking water and complies with all applicable laws and regulations.

37. Notwithstanding the provisions of Section VI of this Consent Decree

(Approval of Deliverables), in the event that EPA disapproves the Final UIC Report, AZR shall complete any required revisions and re-submit the Final UIC Report within fourteen (14) Days of receipt of notice that EPA has disapproved the Final UIC Report.

38. In the event that AZR's analysis, in accordance with applicable federal regulations, presented within the Infiltration Investigation Report concludes that no unauthorized UIC well is present at the referenced location, and in the further event that EPA disagrees with that conclusion, then within fourteen (14) Days of receipt of written notice that EPA disagrees with AZR's conclusion presented in the Infiltration Investigation Report that no unauthorized UIC well is present at the referenced location, AZR shall either submit to EPA the UIC Management Plan for such unauthorized UIC well or shall proceed pursuant to Section XII (Dispute Resolution) of this Consent Decree.

4. CWA SPCC Compliance Requirements

39. Within thirty (30) Days of the Effective Date, in accordance with Section IX (Reporting Requirements) and Section XVI (Notices) of the Consent Decree, AZR shall provide documentation to EPA that AZR has revised and/or corrected the Palmerton Facility's Integrated Preparedness, Prevention, and Contingency Plan (ICP) in compliance with the requirements under 40

C.F.R. Part 112, and as required by this Paragraph 39. Such documentation shall include the corrected text from the ICP, as well as the complete ICP plan, relevant calculations, invoices, photos and such other information as reasonably necessary for EPA to determine whether the ICP deficiencies have been corrected, along with the date the ICP was corrected. At a minimum, the revised plan shall contain the elements required by 40 C.F.R. §§ 112.3, 112.7 and 112.8 (as applicable) with particular attention to the following:

a. information demonstrating that the pipe on Tank 002A has been addressed;

b. information on the type of oil in each container and its storage capacity;

c. information concerning the alternative to general secondary containment as required for oil-filled equipment;

d. information on disposal steps for oil-contaminated media;

e. provide a complete description and demonstration of implementation requirements pertaining to Facility drainage;

f. provide a complete description and demonstration of implementation requirements pertaining to Facility Transfer Operations, Pumping, and In-Plant Processes;

g. provide a complete description and demonstrate implementation requirements pertaining to Bulk Storage Containers;

h. provide evidence of annual training; and,

i. provide evidence of inspections.

B. RCRA Compliance Requirements

1. General Facility RCRA Management Requirements

40. AZR shall not introduce any hazardous wastes into the Waelzing or Calcining Kilns, unless the hazardous waste complies with all of the requirements as set forth at 40 C.F.R. § 266.100(c)-(d) or AZR complies with the applicable requirements of 40 C.F.R. Part 266, Subpart H.

41. Within thirty (30) Days of the Effective Date, all Lead Concentrate stored or originating at the Palmerton Facility shall be managed in accordance with all of the PAHWMR and the Federal HW Requirements applicable to hazardous waste bearing the EPA hazardous waste numbers D006, D008, K061 and any other applicable waste codes, provided that this Paragraph 41 shall not be construed as an admission or determination as to the status of Lead Concentrate as a solid or hazardous waste;

42. In addition to Paragraph 41 above, AZR shall manage Lead Concentrate in the following manner:

a. AZR shall not accept at the Palmerton Facility any Lead Concentrate originating at other facilities;

b. AZR shall only store Lead Concentrate at the Palmerton Facility for up to ninety (90) Days. Lead Concentrate shall be stored in Supersacks or other properly maintained containers in accordance

with the requirements of 25 Pa. Code § 264a, Subchapter I and the analogous provisions of the Federal Hazardous Waste Requirements;

c. AZR shall only store Lead Concentrate in accordance with the aisle space requirements depicted in the diagram attached hereto as Appendix D; and

d. AZR shall only store Lead Concentrate in the buildings known at the Facility as the "Cathedral" (Building 864), the "Barium" (Building 710), the "Warehouse" (Buildings 603/604), the "Powders" (Building 611), the "Lithopone" (Building 719) and the "Lead Chloride Packing" (Building 616/672) for a period of no greater than ninety (90) Days provided AZR certifies no later than the Date of Lodging, in the form for certification set forth at 40 C.F.R. § 270.11(d)(1), that Buildings 864, 710, 603/604, 611, 719 and 616/672 meet the requirements for hazardous waste storage set forth in 40 C.F.R. § 264.14-.17 (relating to security, general inspection requirements, general facility standards, personnel training and general requirements for ignitable, reactive or incompatible wastes), 40 C.F.R. § 264 Subpart C (relating to preparedness and prevention) and 40 C.F.R. § 264 Subpart D (relating to contingency plan and emergency procedures) and which are all incorporated by reference by 25 Pa. Code § 264a.1.

43. No later than the Date of Lodging, AZR shall cease storing Lead Concentrate that has been stored at the Palmerton Facility for greater than ninety (90) Days.

44. No later than the Date of Lodging, AZR shall cease storing Supersacks of Lead Concentrate outside at the Palmerton Facility.

45. The provisions of Paragraphs 41-44 are not intended and shall not have the effect of preventing AZR from managing Lead Concentrate pursuant to any exemption, exclusion, variance, or non-waste determination that may apply

to such material pursuant to the PAHWMR or the Federal HW Requirements. However, such management shall not relieve the Defendant of its obligations under Paragraphs 42-44 for the life of the Consent Decree, regardless of any exemption, exclusion, variance, or non-waste determination that may apply to Lead Concentrate.

46. PD Station. In order to minimize release of hazardous waste to the environment at and from the pressure differential unloading station (PD Station), AZR shall do the following:

a. No later than the Date of Lodging, partially enclose the PD station to minimize the possibility of release of hazardous waste to the environment;

b. Implement design enhancements and detailed procedures to minimize the risk of release of hazardous waste at the PD Station that will be described in detail in the SOP required by Paragraph 70 of this Consent Decree;

c. No later than ten (10) Days after the Effective Date, install a Closed-Circuit Television System (CCTV) camera at the PD Station;

d. During any operating shift when pressure differential trucks utilize the PD Station for unloading, the CCTV shall be monitored by a Facility employee or contractor who has been trained in accordance with the training requirements of Section VIII (Training) of this Consent Decree and specifically on the PD Station SOP required by Paragraph 70 of this Consent Decree. This employee or contractor shall be able to communicate immediately with supervisors in the event of a problem, release, or potential release of hazardous waste at or from the PD Station;

e. No later than ten (10) Days after the Effective Date, install a sensor that will be triggered by pressure differential trucks when approaching the PD Station to unload hazardous waste so that the employee or contractor, specified in Paragraph 46.d., above, is alerted to monitor the truck's unloading activity;

f. Maintain CCTV recordings of the PD Station for a period of at least forty-five (45) Days from the time each pressure differential truck leaves the Palmerton Facility and make such recordings available to EPA and PADEP upon request; and

g. With the first and second of the semi-annual reports required by Paragraph 124 of this Consent Decree, submit, or provide an internet address from which EPA and PADEP may download, video recordings for twenty-six (26) Days from the previous six (6) months of CCTV recordings of the PD Station. AZR shall generate a random sampling of twenty-six (26) Days during the previous six (6) months using a random date generator such as https://www.random.org/calendar-dates/ to determine which recordings shall be provided to EPA and PADEP. AZR shall include documentation of the results of the random date generator with the reports required by this Paragraph.

47. Initial Third-Party Professional Engineer EAF Dust Storage and Truck Wash Building Inspection. No later than thirty (30) Days after the Effective Date, AZR shall have a qualified, registered third-party Professional Engineer perform an inspection of the EAF Dust storage and truck wash building known as Building 608 and Building 624 to ensure compliance with the Containment Building Requirements. The inspection shall be conducted during normal operations.

48. AZR shall require the qualified, registered third-party Professional Engineer

to prepare an inspection report with recommendations to ensure compliance with the Containment Building Requirements (PE Report). AZR shall submit the PE Report to Plaintiffs no later than thirty (30) Days after completion of the inspection required by Paragraph 47.

a. AZR shall complete all work required to implement the PE Report recommendations to ensure compliance with the Containment Building Requirements no later than ninety (90) Days after receipt of the PE Report. In the event that AZR determines that completing the work will require more than ninety (90) Days, AZR shall submit a written request for additional time, with justification, to EPA for approval pursuant to Section VI (Approval of Deliverables) within ten (10) Days of receipt of the PE Report. AZR shall complete all work in accordance with the EPA-approved schedule. AZR shall notify Plaintiffs and the qualified, registered third-party Professional Engineer in writing that the work has been completed within seven (7) Days of work completion;

b. AZR shall require that the qualified, registered third-party Professional Engineer re-inspect Building 608 and Building 624, to ensure the work recommended by the PE Report has been completed, no later than thirty (30) Days after AZR has completed the work. If the qualified, registered third-party Professional Engineer determines during this re-inspection that the work recommended in the PE Report has not been completed in full and as described in the PE Report, AZR shall submit the PE's determination to Plaintiffs no later than fourteen (14) Days after the date of the re-inspection. In this event, AZR shall complete such additional work no later than sixty (60) Days from receipt of this determination from the qualified, registered third-party Professional Engineer unless AZR determines that completing this additional work will require more than sixty (60) Days, in which case AZR shall submit a written request for additional time, with justification, to EPA for approval pursuant to Section VI (Approval of Deliverables) within ten (10) Days after receiving the determination. AZR shall complete the work within any additional timeframe approved by EPA; and,

c. AZR shall require the qualified, registered third-party Professional Engineer to provide a certification as defined at 40 C.F.R. § 260.10 to AZR and the Plaintiffs that recommendations in the PE Report have been implemented, all work has been completed, and Building 608 and Building 624 are in compliance with the Containment Building Requirements.

49. Annual Third-Party PE Inspections. After the completion of the requirements of Paragraph 48.a-c., above, AZR shall retain a qualified, registered third-party Professional Engineer to perform annual inspections of Building 608 and Building 624 and to prepare a report identifying recommendations to ensure compliance with the Containment Building Requirements (PE Annual Inspection Report). AZR shall submit a copy of the PE Annual Inspection Report, as well as documentation of any repairs or modifications made as result of the inspection and PE Annual Inspection, with one of the semi-annual reports required by Paragraph 124 of this Consent Decree.

50. Third Party Consultant Inspections of the Palmerton Storage Facility. In addition to the initial and annual inspections of Building 608 and Building 624 required by Paragraphs 48 and 49 of this Consent Decree, no later than thirty (30) Days after the Effective Date, AZR shall also have a qualified third-party consultant perform an inspection of the Palmerton Storage Facility to ensure compliance with the RCRA Permit and all other applicable

PAHWMR and Federal HW Requirements. The inspection performed pursuant to Paragraph 50 shall reflect the then-current status of and requirements applicable to materials managed at the Palmerton Storage Facility pursuant to the PAHWMR, the Federal HW Requirements, and other relevant provisions of this Consent Decree. This inspection shall not extend to the issues governed by the initial and annual inspections conducted pursuant to Paragraphs 48 and 49 of this Consent Decree.

a. AZR shall require the qualified third-party consultant to prepare an inspection report with recommendations to ensure compliance with the RCRA Permit and all other applicable PAHWMR and Federal Requirements of AZR ("Consultant's Inspection Report"). AZR shall submit the Consultant's Inspection Report to Plaintiffs no later than thirty (30) Days after completion of the inspection required by Paragraph 50;

b. AZR shall complete all work required to implement the Consultant's Inspection Report recommendations to ensure compliance with the RCRA Permit and all other applicable PAHWMR and Federal Requirements no later than ninety (90) Days after receipt of the Consultant's Inspection Report. If AZR determines that completing the work will require more than ninety (90) Days, AZR shall submit a written request for additional time, with justification, to EPA for approval pursuant to Section VI (Approval of Deliverables) within ten (10) Days of receiving the Consultant's Inspection Report. AZR shall complete the work within any additional timeframe approved by EPA. AZR will notify Plaintiffs and the qualified third-party consultant that the work has been completed within seven (7) Days of work completion;

c. AZR shall require that the qualified third-party consultant re-inspect the Palmerton Storage Facility to ensure the work recommended by the Consultant's Inspection Report has been completed no later than

thirty (30) Days after AZR completes the work. If the qualified third-party consultant determines during this re-inspection that the work as recommended in the Consultant's Inspection Report has not been completed in full and as described in the Report, AZR shall submit the qualified third-party consultant's determination to Plaintiffs no later than fourteen (14) Days after completion of the qualified third-party consultant's re-inspection. In this event, AZR shall complete such additional work no later than sixty (60) Days from receipt of this determination from the qualified third-party consultant unless AZR determines that completing this additional work will require more than sixty (60) Days, in which case AZR shall submit a written request for additional time, with justification, to EPA for approval pursuant to Section VI (Approval of Deliverables) within ten (10) Days after receiving the determination. AZR shall complete the work within any additional timeframe approved by EPA; and

d. AZR shall require the qualified third-party consultant to provide a certification as defined at 40 C.F.R. § 260.10 to AZR and the Plaintiffs that the recommendations in the Consultant's Inspection Report have been implemented, all work has been completed, and the Palmerton Storage Facility is in compliance with the RCRA Permit and all other applicable PAHWMR and Federal HW Requirements.

51. AZR Inspections Pursuant to RCRA Permit. In addition to submission of the inspection reports required by Paragraphs 49 and 50.a.-c. of this Consent Decree, AZR shall submit to EPA and PADEP copies of reports of inspections performed by AZR of the Palmerton Storage Facility required by the RCRA Permit. The reports shall include a description of any equipment deterioration and other conditions that may result in spillage, fugitive air emissions, and or other operating malfunctions or failures, a description of

any repairs or modifications made as a result of such inspections along with associated work orders. AZR shall submit such reports for a period of two (2) years from the Effective Date and shall include such reports with the semi-annual reports required by Paragraph 124 of this Consent Decree.

52. CZO Variance Request and Management. In the event that that AZR elects to submit to PADEP, a solid waste variance request for CZO under 40 C.F.R. § 260.30(c), following procedures in 40 C.F.R. § 260.33, AZR shall simultaneously submit a copy to EPA. In the event PADEP approves the variance request in writing, after consultation with EPA, AZR shall manage the CZO as specified in the solid waste variance approval.

53. Procedures in the Event of Variance Denial. If, within thirty (30) Days after the Effective Date, AZR submits to PADEP a solid waste variance request for CZO pursuant to Paragraph 52, above, and PADEP, after consultation with EPA, issues a denial of such variance request, then, subject to the provisions of this Paragraph 53, AZR shall store all CZO, regardless of source, in a building that is in compliance with the Containment Building Requirements or in containers that meet the requirements of 40 C.F.R. Part 264, Subpart I, and shall manage the CZO in accordance with all of the PAHWMR and the Federal HW Requirements applicable to hazardous waste bearing the EPA hazardous waste numbers D006, D008, K061, and any

other applicable waste codes, beginning no later than thirty (30) months after the variance request denial. This Paragraph 53 shall not be construed as an admission or determination as to the status of CZO as a solid or hazardous waste.

54. In the event that AZR seeks to pursue dispute resolution in response to any denial by PADEP of a variance request for CZO submitted pursuant to Paragraph 52, such dispute resolution shall be governed by the provisions of this Paragraph 54 rather than pursuant to Section XII (Dispute Resolution) of this Consent Decree. In the event that PADEP, after consultation with EPA, issues a denial of a variance request for CZO, any such denial by PADEP shall be considered final agency action subject to appeal before the Pennsylvania Environmental Hearing Board ("EHB"), pursuant to 35 P.S. § 7514. Such appeal proceeding before the EHB shall constitute AZR's opportunity for dispute resolution relative to these provisions. In the event that, as a result of such dispute resolution, the variance request is granted (as submitted or in a modified format), then AZR shall comply with the requirements of the approved variance, including any conditions included in the approval, and no provision of this Consent Decree shall have the effect of limiting the scope and effect of, or benefits to AZR from, such approved variance.

55. Procedures in the Event of No Variance Request Submission. No later than thirty (30) months after the Effective Date, if AZR has not submitted a solid waste variance request for CZO, then subject to the provisions of this Paragraph 55, AZR shall store all CZO, regardless of source, in a building that is in compliance with the Containment Building Requirements or in containers that meet the requirements of 40 C.F.R. Part 264, Subpart I, and shall manage the CZO in accordance with all of the PAHWMR and the Federal HW Requirements applicable to hazardous waste bearing the EPA hazardous waste numbers D006, D008, K061, and any other applicable waste codes. This Paragraph 55 shall not be construed as an admission or determination as to the status of CZO as a solid or hazardous waste.

56. Notwithstanding the foregoing Paragraphs 52-55, nothing in this Consent Decree shall prevent AZR from managing CZO (regardless of the source of such CZO) in accordance with any other exemption, exclusion, variance, or non-waste determination that may be applicable to such material pursuant to the PAHWMR and the Federal HW Regulations.

57. Calcine Feed Material Storage. AZR shall store all Calcine Feed Materials, regardless of source, in accordance with all applicable provisions of the PAHWMR and the Federal HW Requirements, beginning no later than ninety (90) Days after the Effective Date, unless a solid waste variance is

sought and approved in writing for such Calcine Feed Materials, or the Calcine Feed Materials are subject to any other exemption, exclusion, variance, or non-waste determination that may be applicable to such material pursuant to the PAHWMR and the Federal Hazardous Waste Requirements.

58. Closure Cost Estimates. AZR shall obtain a third-party determination for closure cost estimates in accordance with 25 Pa. Code § 264a. Subchapter H and the Federal Corrective Action Requirements, for all areas and material at the Palmerton Facility listed in Appendix E, attached hereto, no later than one hundred and eighty (180) Days after the Effective Date. No later than fifteen (15) Days after AZR receives the third-party determination, AZR shall submit this closure cost estimate to EPA for approval pursuant to Section VI (Approval of Deliverables).

59. Closure Bond. AZR shall post a bond and/or increase the amount of a bond consistent with the requirements of 25 Pa. Code § 264a. Subchapter H, to meet the closure cost estimate as required by Paragraph 58, above, for all areas and material at the Palmerton Facility listed in Appendix E, attached hereto, no later than sixty (60) Days after obtaining written approval from EPA of the closure plan and closure cost estimate.

60. Closure Plan. AZR shall retain a qualified third-party to develop a closure plan for the areas of the Palmerton Facility as listed in Appendix E, attached

hereto, that shall be maintained and kept up to date by AZR, in accordance with 25 Pa. Code § 264a Subpart G, which incorporates by reference 40 C.F.R. Part 264 Subpart G with exceptions not relevant herein. No later than one hundred and eighty (180) Days after the Effective Date, AZR shall submit this closure plan to EPA for approval pursuant to Section VI (Approval of Deliverables).

61. Storage of Kiln Rubble and Brick. Beginning no later than the Date of Lodging, AZR shall store hazardous waste Kiln rubble and Kiln brick in accordance with 25 Pa. Code § 262a.10 which incorporates by reference 40 C.F.R. § 262.34.

62. Lime Bunker Signs and Storage. No later than the Date of Lodging, AZR shall post signs on the Lime Bunker prohibiting, at all times, the storage of hazardous waste, including hazardous waste Kiln rubble and Kiln brick on the ground in the Lime Bunker.

63. Lime Bunker Inspections. Beginning no later than the Date of Lodging, AZR shall conduct and document weekly inspections of the Lime Bunker in accordance with 40 C.F.R. § 265.173 for any week in which hazardous waste is stored in containers as that term is defined by 25 Pa Code § 260a.1 which incorporates by reference 40 C.F.R. § 260.10 within the Lime Bunker.

64. Hours of Operation Signs. No later than the Date of Lodging, AZR shall

post hours of operation at the Facility entrances.

65. Iron Rich Material Management Plan. No later than one hundred and eighty (180) Days after the Effective Date, AZR shall submit to EPA and PADEP, for PADEP approval, after consultation with EPA, an Iron Rich Material Management Plan that, at a minimum, addresses the production, Land Disposal Restriction ("LDR") compliance testing, storage, inventory management and tracking, coproduct determination(s), end use chemical/physical analysis parameters and specifications, and other use/re-use of any IRM at any location by AZR or any party. AZR shall implement the Iron Rich Material Management Plan no later than thirty (30) Days after receiving written approval from PADEP.

66. IRM Pad Regulatory Justification. No later than thirty (30) Days after the Effective Date, AZR shall submit to PADEP for approval a regulatory justification for AZR's use of IRM in the construction of the IRM Pad.

67. In the event that the Defendant determines to pursue dispute resolution in response to any non-concurrence or disapproval by PADEP, after consultation with EPA, with regard to AZR's regulatory justification required by Paragraph 66 of this Consent Decree, or the IRM Management Plan required by Paragraph 65 of this Consent Decree, such dispute resolution shall be governed by the provisions of this Paragraph 67, rather

than pursuant to Section XII (Dispute Resolution). In the event that PADEP, after consultation with EPA, disapproves or otherwise does not concur with AZR's regulatory justification or IRM Management Plan, PADEP shall provide written notice of the reason for such nonconcurrence of disapproval. Within forty-five (45) Days of its receipt of such nonconcurrence or disapproval, AZR shall respond to the Plaintiffs with a revised regulatory justification and/or IRM Management Plan. PADEP, after consultation with EPA, will then either approve the regulatory justification and/or IRM Management Plan or issue a written explanation of its further disapproval or nonconcurrence. The parties agree that any such determination by PADEP, after consultation with EPA, shall be considered final agency action subject to appeal before the Pennsylvania Environmental Hearing Board ("EHB"), pursuant to 35 P.S. Section 7514. Such appeal proceeding before the EHB shall constitute AZR's opportunity for dispute resolution relative to these provisions and the Dispute Resolution provisions of Section XII of this Consent Decree shall not apply to any disputes relating to PADEP's determination pursuant to this Paragraph 67 of this Consent Decree.

68. AZR shall operate and maintain the IRM Storage Building in accordance with the requirements of 25 Pa. Code Chapter 299.

69. Nothing in Paragraphs 65-68 of this Consent Decree shall be construed as an

admission or determination as to the status of IRM under the Pennsylvania residual waste laws and regulations, the PAHWMR, and the Federal HW Requirements.

2. Development and Implementation of RCRA Standard Operating Procedures and Plans

70. SOP for PD Station. Within the later of thirty (30) Days following the Effective Date or fifteen (15) Days after completion of the requirements of Paragraphs 46.a.-e., above, AZR shall develop a Standard Operating Procedure (SOP) for the PD Station that includes the requirements of Paragraph 46.a.-e., above. The PD Station SOP shall also require no fewer than one Facility employee, who is trained in accordance with Section VIII (Training) of this Consent Decree and all other applicable PAHWR and Federal HQ Requirements, shall be present at the PD Station during all unloading operations for at least six (6) months after completion of the requirements of Paragraph 46.a., c., d., and e., above, to ensure such operations are in compliance with the RCRA Permit and all other applicable PAHWR and Federal HW Requirements. Pressure differential truck drivers shall be provided a copy of this SOP and informed to adhere to its requirements and to AZR's new best management practices implemented to minimize risk of release of hazardous waste from the PD Station. AZR shall

commence implementation of the PD Station SOP no later than ten (10) Days after development of the SOP as required by this Paragraph 70.

71. Truck Wash Building 624 Video Camera Installation. Within thirty (30) Days after the Effective Date, AZR shall install a motion-activated video camera system on the exterior of Building 624 to record each truck leaving Building 624 and the surrounding pavement. The video camera shall be positioned to show whether each truck using the truck wash station has been sufficiently washed to prevent track-out of EAF Dust from trucks exiting the Truck Wash Building 624. The motion activated video camera shall operate at all times and shall record each truck and the surrounding pavement as each truck exits Building 624.

72. SOP for Truck Washing. Within thirty (30) Days after the Effective Date, AZR shall develop an SOP that includes design enhancements and detailed procedures, including operation of the video camera as required by Paragraph 71, above, to ensure the thorough washing of trucks leaving Building 608's Truck Wash Building 624 and includes the requirements of Paragraphs 73-76 of this Consent Decree. AZR shall implement this SOP no later than ten (10) Days after the development of the SOP as required by this Paragraph 72 of this Consent Decree.

73. For at least six (6) months following implementation of design

enhancements to the truck wash station and detailed procedures to ensure thorough washing, trucks completing the truck wash process shall be monitored by a Facility employee who has been trained in accordance with the training requirements of Section VIII (Training) of this Consent Decree. If the employee observes that a truck has not been sufficiently washed by the truck wash process to prevent track-out of EAF Dust, the employee shall require implementation of additional washing steps to prevent such track-out. The employee shall have the necessary communications equipment to enable immediate communication with Facility supervisors of any problem which arises at the Truck Wash Building 624. For each instance in which the employee observes insufficiencies in the truck wash process that result in implementation of a change to the wash process to prevent EAF Dust track-out, the trained employee shall continue to be present during truck wash operations to monitor for additional design or operational problems, for an additional sixty (60) Days from the date of the change.

74. After the conclusion of the monitoring period required by Paragraph 73 above, the video recordings required by Paragraphs 71 and 72, above, shall be reviewed weekly by a Facility employee who has been trained in accordance with the training requirements of Section VIII (Training) of this Consent Decree and any other PAHWR and Federal HW Requirements for a

period of sixty (60) Days. The weekly review shall consist of reviewing the previous seven (7) Days of video recordings to determine the effectiveness of the truck wash process. After the conclusion of the sixty (60) Days of review required by this Paragraph 74, the video recordings required by Paragraphs 71 and 72, above, shall be reviewed once per month by a Facility employee who has been trained in accordance with the training requirements of Section VIII (Training) of this Consent Decree and any other PAHWR and Federal HW Requirements. The monthly review required by this Paragraph 74 shall consist of reviewing a random sampling of five (5) Days during the previous thirty (30) Days using a random date generator such as https://random.org/calendar-dates/. AZR shall submit documentation of the results of the random date generator with the reports required by this Paragraph. In the event the recordings reviewed show any truck leaving Building 624 that has not been sufficiently washed to prevent trackout of EAF Dust, the employee shall document the observation in writing. AZR shall take remedial action to ensure future truck washing is adequate to prevent EAF Dust track-out. AZR shall submit the documentation required by this Paragraph 74, and a description of any remedial action taken to correct any failure to complete truck washing, with the semi-annual reports required by Paragraph 124, below.

75. For a period of one (1) year from commencement of implementation of the Truck Wash SOP required by Paragraph 72, above, AZR shall submit to EPA and PADEP, or provide an internet address from which EPA and PADEP may download, copies of the video recordings of trucks leaving the truck wash stations for twenty-six (26) Days from each of the two six-month intervals comprising that one-year period. Such video recordings shall be submitted or made available via internet download with the semi-annual reports required by Paragraph 124 of this Consent Decree. To implement this process, prior to the date of the semi-annual reports, AZR shall generate a random sampling of twenty-six (26) Days during the previous six (6) months using a random date generator such as http://www.random.org/calendar-dates/ for which recordings shall be provided to EPA and PADEP. AZR shall submit documentation of the results of the random date generator with the reports required by this Paragraph.

76. In addition to the requirement of Paragraph 75, above, to submit copies of video recordings with the semi-annual reports, AZR shall retain all video recordings required by Paragraphs 71 and 72, above, for each truck leaving the Truck Wash Building 624 for at least ninety (90) Days from the time each truck leaves the Truck Wash Building 624. AZR shall provide such

video recordings to EPA and PADEP upon request.

77. ZRM Storage Pile Removal Plan. Within seven (7) Days of the Effective Date, AZR shall submit to EPA for approval in accordance with Section VI (Approval of Deliverables), a Storage Pile Removal Plan for the ZRM at the Facility, and shall include documentation of the amount of ZRM in storage at the Palmerton Facility at that time as determined by AZR using methods such as inventory records and physical characteristics of the ZRM, such as the size of the ZRM pile and density of the material. AZR shall remove all ZRM in accordance with the EPA-approved ZRM Storage Pile Removal Plan. This Storage Pile Removal Plan shall provide for removal of the ZRM from the Facility over a time period of no more than eighteen (18) months, with interim requirements that at least 75% of the ZRM is removed from the Facility within the first twelve (12) months and any remaining ZRM is removed within the last six (6) months. The Storage Pile Removal Plan shall include requirements for AZR to submit records to EPA documenting compliance with the Plan, including hazardous waste manifests, legitimate recycling information, weights of ZRM recycling and shipments amounts, and time frames. The Storage Pile Removal Plan may utilize a combination of on-site recycling of the ZRM as well as shipment offsite for storage, treatment, and/or disposal of the ZRM as a D006, D008, and any other

applicable hazardous waste codes, hazardous waste at an appropriate permitted treatment, storage, and/or disposal facility. Notwithstanding the provisions of Section VI of this Consent Decree (Approval of Deliverables) upon EPA disapproval of the ZRM Storage Pile Removal Plan or portion of the Plan, AZR shall submit a revised Plan within fifteen (15) Days of receipt of EPA's written disapproval. AZR shall implement the ZRM Storage Pile Removal Plan no later than fifteen (15) Days after receiving written approval from EPA.

78. AZR shall review annually each SOP and plan required by Paragraphs 70, 72 and 77 of this Consent Decree, as well as the results of the implementation of such SOPs and plans, and shall update the SOPs and plans annually based on the review and results of implementation. AZR shall make all such SOPs and plans available to EPA and PADEP upon request. AZR shall include all current SOPs and plans required by Paragraphs 70, 72 and 77 of this Consent Decree in the training content required by Section VIII (Training) of this Consent Decree.

79. Settling Basins Regulatory Justification. No later than thirty (30) Days after the Effective Date, AZR shall submit to EPA for approval pursuant to Section VI (Approval of Deliverables) a Settling Basins Regulatory Justification that identifies the regulatory status of each of the Settling

Basins, and includes waste determinations made in accordance with 40 C.F.R. § 262.11 and all other applicable Federal HW Requirements for any material contained within or removed from the Settling Basins located at the Palmerton Facility. The Regulatory Justification shall also include a map or diagram depicting any and all lines leading into and out of the Settling Basins as well as the origin and destination of the lines, a list of all materials that enter the Settling Basins, construction diagram(s) for the Settling Basins, and a determination on whether any of the Settling Basins meet the definition of a tank or a surface impoundment. If AZR seeks to assert that the Settling Basins are exempt from RCRA regulations, AZR shall provide a detailed narrative and supporting documentation to support any such assertion as part of its Regulatory Justification submitted in accordance with Section VI (Approval of Deliverables). AZR shall commence management of the Settling Basins in accordance with EPA's approval or disapproval of AZR's Regulatory Justification no later than fifteen (15) Days from receipt of EPA's approval or disapproval.

C. Clean Air Act Compliance Requirements

1. Process Monitoring and Maintenance

80. Defendant shall monitor and record the following operating parameters for each Kiln and associated Product Collector as specified in this Paragraph 80.

Data shall be collected and logged in an electronic spreadsheet format compatible with commercially available software on a per Kiln per operating mode basis:

	Parameter	**Kiln/Operating Mode**	**Monitoring Frequency**	**Data Logging Frequency**
a.	Kiln Feed Rate	All Kilns in all modes	Continuous Monitoring	Continuous Data Collection
b.	Zinc concentration in Waelzing feed	Combined feed for K1-Waelz and K2, K5	At least 1 sample of combined feed directed, as applicable, to K1 – Waelz, K2, and K5 per operating shift	Daily average of samples
c.	Zinc concentration in Zinc Calcine	Combined feed for K1-Calcine and K6	At least 1 sample of combined feed directed to K1 – Calcine and/or K6 per operating shift	Daily average of samples
d.	Burner operating hours	All Kilns in all modes	Continuous Monitoring	Identify the hours of operation and total hours per day by recording burner start and end times
e.	Burner fuel combusted	All Kilns in all modes	Continuous Monitoring of aggregate fuel combustion by kilns	Daily record of fuel use in average hourly MMBtu per hour
f.	Upkiln Temperature	K1 -Waelz K2, K5	Continuous Monitoring	Continuous Data Collection
g.	Kiln Discharge Temperature	All Kilns in all modes	Continuous Monitoring	Continuous Data Collection
h.	Dust Catcher Inlet Temperature	All Kilns in all modes	Continuous Monitoring	Continuous Data Collection
i.	Product Collector Inlet Temperature	All Kilns in all modes	Continuous Monitoring	Continuous Data Collection

	Parameter	**Kiln/Operating Mode**	**Monitoring Frequency**	**Data Logging Frequency**
j.	Product Collector Fan Speed	K1, K2, and K5	Continuous Monitoring	Continuous Data Collection
k.	Product Collector Fan Damper Position	K6	Continuous Monitoring	Continuous Data Collection
l.	Product Collector Differential Pressure Drop	All Kilns in all modes	Continuous Monitoring	Continuous Data Collection

For purposes of this Paragraph 80, "Continuous Monitoring" and "Continuous Data Collection" shall mean monitoring and recording, respectively, at the following frequencies:

(i) the parameters governed by Paragraphs 80.f.-i. shall be monitored no less frequently than once every ten (10) seconds, and recorded no less frequently than once every one (1) minute; and

(ii) the parameters governed by Paragraphs 80.a., d., e., j.-l. shall be monitored and recorded no less frequently than once every one (1) minute.

For purposes of AZR's compliance to conduct Continuous Monitoring and Continuous Data Collection under this Consent Decree, monitoring shall be deemed continuous if data is available (i) in each calendar month for at least 90% of the time periods for which the operational parameter applies; and (ii) in each calendar quarter for at least 95% of the hours for which the operational parameter applies.

81. Defendant shall install scales on the Kilns and determine feed rate in order to comply with Paragraph 80.a. as follows:

(a) No later than the Effective Date, Defendant shall install scales on

the feed belt serving Kiln #2 and the feed belt serving both Kiln #1 (in Waelzing mode) and Kiln #5. Defendant shall determine feed rate for Kiln #2 based on the feed weight measured by the scale on the feed belt serving Kiln #2. For Kiln #1 (in Waelzing mode) and Kiln #5, Defendant shall determine feed rate based on the combined feed weight measured by the scale on the feed belt serving both Kiln #1 (in Waelzing mode) and Kiln #5 and the relative time that feed is directed by the plough to each Kiln respectively.

(b) No later than the Effective Date, Defendant shall determine feed rate for Kiln #1 (in Calcining mode) and Kiln #6 by recording the feed pan speed based on the determination of Calcining product output as a 7-day rolling average. No later than one year from the Effective Date, Defendant shall install scales on the feed belts serving Kiln #1 (in Calcining mode) and Kiln #6, respectively, and shall determine feed rate for Kiln #1 (Calcining) and Kiln #6 based on the feed weight measured by the scales on the feed belts serving Kiln #1 (Calcining) and Kiln #6, respectively.

82. Within six (6) months of the Effective Date**,** for Product Collectors dedicated to Kiln #1, Kiln #2, Kiln #5 and Kiln #6, respectively, Defendant shall install and operate Bag Leak Detection Systems (“BLDS”) and

maintain and operate such systems in accordance with manufacturer's specifications. Each BLDS shall be equipped with a sensor that is identified by the manufacturer as capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter in order to monitor relative particulate matter loadings in the exhaust of the product collectors in order to detect bag leaks and other upset conditions. The BLDS sensor output shall be continuously recorded using a strip chart, recorder, data logger, or other means. The Bag Leak Detection Systems shall also be equipped with an alarm system that (i) will sound when it detects emissions from any Product Collector above a pre-set level specified by the manufacturer, and (ii) is located such that it can be heard by the designated plant personnel responsible for investigating increased particulate loading and taking corrective actions as appropriate. Defendant shall maintain records on-site of all inspections and maintenance performed on the BLDS, including the date and time of each inspection or maintenance activity and any corrective actions performed.

83. For Baghouses associated with the sources listed in this Paragraph 83, Defendant shall monitor the pressure drop in inches of water across the Baghouse no less frequently than once every one (1) minute and record the readings once per operating shift in inches of water.

a. Feed Hopper Loading (PROC 233, Control C54)

b. Truck Sweep Station/Material Conveyor Transfer (Building 608 Pickup) (PROC 236, Control C58)

c. F2 Kiln Discharge Fugitive Dust Collector (PROC 238, Control C60)

d. F1 Kiln Discharge Fugitive Dust Collector (PROC 239, Control C61)

e. Kiln Feed Conveying System (PROC 245, Control C63)

84. For Baghouses associated with the sources listed in this Paragraph 84 (with a design capacity of 5,000 ACFM or less), Defendant shall monitor the pressure drop in inches of water across the baghouse no less frequently than once every one (1) minute and record the differential pressure drop two times per operating day during different shifts, in inches of water.

a. Lead Concentrate Pneumatic Conveyer (PROC 230, Control C51)

b. EAF Dust Railcar Unloading (PROC 235, Controls C56 and C57)

c. PD Railcar Unloading (PROC 213, Controls C29 and C29A)

d. CZO Unloading System (PROC 214, Control C66)

e. Pneumatic Materials Handling (PROC 246, Controls C64A, C64B, C64C, C64D, C64E)

f. Calcine Kiln Feed Receiving Bin (PROC 248, Control C67)

g. Lead Concentrate Sack Packer (PROC 237, Control C59)

h. C2 Conveyer Transfer Point (PROC 234 Control C55)

85. Defendant shall report the results of the monitoring and recording required by Paragraphs 80, 83, and 84, with the appropriate units for each parameter, with the semi-annual report in accordance with Paragraph 124 of this Consent Decree. For any data collected pursuant to Paragraph 80.a., f. through l., data shall be compiled into hourly averages for the purpose of reporting such data under this Paragraph 85. All other data shall be reported as identified in Paragraphs 80, 83, and 84. This data shall be transmitted in electronic spreadsheet format compatible with commercially available software.

86. Defendant shall maintain the operating pressure differential across each Baghouse identified in Paragraphs 83 and 84 within the pressure drop ranges listed in Table 1 in this Paragraph.

TABLE 1 – Pressure Drop Ranges for Baghouses

Name of Emission Source	**Control Device ID**	**Pressure Drop Range (in Water Column (w.c.))**
PD Railcar Unloading	C29	*0.5 to 5.0*
PD Railcar Unloading	C29A	*0.5 to 5.0*
CZO Unloading System	C66	*0.5 to 5.0*
Lead Concentrate Pneumatic Conveyer	C51	*0.5 to 5.0*
Feed Hopper Loading	C54	*0.5 to 5.0*
EAF Dust Unloading/Storage Conveyor Transfer Systems	C55	*0.5 to 5.0*
EAF Dust Railcar Unloading	C56	*0.5 to 5.0*
EAF Dust Railcar Unloading	C57	*0.5 to 5.0*

Name of Emission Source	**Control Device ID**	**Pressure Drop Range (in Water Column (w.c.))**
Truck Sweep Station/Material Conveyor Transfer Systems (Bldg 608 Pickup)	C58	*0.5 to 5.0*
Lead Concentrate Sack Packer	C59	*0.5 to 5.0*
F2 Kiln Discharge Area Fugitive Dust Collector	C60	*0.5 to 5.0*
F1 Kiln Discharge Area Fugitive Dust Collector	C61	*0.5 to 5.0*
Kiln Feed Conveying System	C63	*0.5 to 5.0*
Pneumatic Materials Handling – Receiving silo bin vent A	C64A	*0.5 to 5.0*
Pneumatic Material Handling – Receiving silo bin vent B	C64B	*0.5 to 5.0*
Pneumatic Materials Handling – Receiving silo bin vent C	C64C	*0.5 to 5.0*
Pneumatic Materials Handling – Receiving silo bin vent D	C64D	*0.5 to 5.0*
Pneumatic Materials Handling – Receiving silo bin vent E	C64E	*0.5 to 5.0*
Calcine Kiln Feed Receiving Bin	C67	*0.5 to 5.0*

87. Notwithstanding Paragraph 86 above, Defendant may submit for EPA approval an alternative pressure drop range for any Baghouse. Such submittal shall be addressed according to the provisions of Section VI (Approval of Deliverables). Defendant shall justify the basis for the proposed alternative range as achieving at least comparable levels of system performance and environmental protection as the ranges(s) identified in Table 1 in Paragraph 86 and include supporting data. If EPA does not act on Defendant's request for approval within sixty (60) Days of receipt of such request, then Defendant may begin complying with its proposed alternative

ranges in the absence of EPA approval.

88. If the pressure drop measured in accordance with Paragraphs 83 and 84 is outside the range established for a listed Baghouse for any source in Paragraph 86, Table 1 (or the alternative pressure drop range pursuant to Paragraph 87), or if the Bag Leak Detection System alarm is activated, Defendant shall begin corrective actions as soon as possible but not later than twenty-four (24) hours of when the pressure drop is first measured outside the range listed in Paragraph 86, Table 1, or the alarm begins, as applicable. The corrective actions shall include, at a minimum, inspecting the pressure drop monitor for proper operation and the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.

89. Defendant shall maintain records of each pressure drop excursion or BLDS alarm, including the starting and ending date and time of the event, the length of time from alarm to the commencement of corrective action, the cause of the event (including unknown cause), a description of the corrective actions taken.

90. Within seventy-two (72) hours of the pressure drop excursion or BLDS alarm, Defendant shall correct the pressure drop excursion at the affected Baghouse or the bag leak at the affected Product Collector, as applicable.

Failure to correct the pressure drop excursion to within the required range for the affected Baghouse as stated in Paragraph 86, Table 1, or to correct the bag leak at the affected Product Collector, within this time will subject Defendant to stipulated penalties unless Defendant was not then operating the air contamination source. If Defendant is unable to correct the pressure drop excursion to within the required range for the affected Baghouse in Paragraph 86, Table 1, or to correct the bag leak at the affected Product Collector, within seventy-two (72) hours of when the system first identifies an excursion outside acceptable operating conditions or the BLDS alarm sounds, as applicable, then Defendant shall notify EPA and PADEP within twenty-four (24) hours of the end of such 72-hour period. Such notice shall provide the information identified in Paragraph 89, above.

91. For all Product Collector bags at the Facility, Defendant shall commission laboratory assessments of such bags no less frequently than every six (6) months, with the initial assessment due within six (6) months of the Effective Date, to determine the appropriate bag replacement frequencies for such bags. For all non-Product Collector bags at the Facility, Defendant shall commission laboratory assessments of such bags no less frequently than once every twelve (12) months, with the initial assessment due within twelve (12) months of the Effective Date, to determine the appropriate bag

replacement frequencies for such bags. For all Product Collectors and Baghouses at the Facility, Defendant shall record bag replacement dates and shall retain such records for five (5) years, or until the next bag replacement, whichever is longer.

92. Thirty (30) days prior to installation of any new Baghouse or Product Collector, in addition to any required Plan Approval or other PADEP requirement, Defendant shall submit to EPA and PADEP, the following:

a. the manufacturer's specifications and recommendations for pressure drop;
b. bag replacement schedules;
c. the specific Baghouse or Product Collector by Source ID; and
d. the manufacturer's name and contact information.

93. Following any installation of a new Baghouse, shutdown of any source controlled by a Baghouse, or adjustment to the pressure drop range applicable to a Baghouse pursuant to Paragraph 87, Defendant shall update Table 1 in Paragraph 86 in accordance with the notice required in Paragraph 87, and submit such update with the next semi-annual report required in Paragraph 124. Defendant shall keep the current list of Baghouses and their associated pressure drop ranges at the Facility and shall make it available to EPA and PADEP upon request.

2. Air Emission Monitoring

94. For Kiln #1, Kiln #2, Kiln #5, and Kiln #6, Defendant shall operate all

Continuous Opacity Monitoring Systems (COMS) in accordance with the current version of the Pennsylvania Continuous Source Monitoring Manual (Document 274-0300-001). For each COMS, Defendant shall ensure that valid hours per month or valid hours per quarter for assessing opacity comply with the Pennsylvania Code Title 25 Chapter 139.102(3) and the Pennsylvania Continuous Source Monitoring Manual.

3. Air Emission Testing

95. Defendant shall undertake the Emissions Tests required under this Consent Decree in accordance with the provisions of Section V.C. of this Consent Decree (Clean Air Act Compliance Requirements). At least ninety (90) Days before any proposed Emissions Test date, for each Emissions Test required by this Consent Decree, Defendant shall submit a proposed test protocol to EPA and PADEP, for written approval by PADEP, after consultation with EPA. All Emissions Testing and related submittals shall conform to the applicable PADEP-approved test protocol. In its stack test protocol, Defendant shall propose a minimum in-stack method detection limit for the reporting of each metal pollutant in the stack test report. For the Kilns, the submitted test protocol shall include the additional sampling and testing required in Paragraph 98, below.

96. Defendant shall conduct Emissions Testing on the air contamination sources

listed in Tables 1A, 1B and 1C, to demonstrate compliance with the emission requirements in its Title V Permit, plan approval, or other authorization, as applicable, and to calculate total facility-wide emissions in accordance with CAA requirements. Tables 1A, 1B, and 1C identify the source name, source ID, pollutants to be tested, and frequency of testing. For the report required under this Paragraph 96, the procedures under PADEP's Source Testing Manual Section 2.2 regarding non-detect values and minimum detection limits shall be used. If, during the Initial Emissions Test identified in Tables 1A and 1B, any Additional Metal is reported at or below either the limit of detection or the limit of quantification applicable to such parameter in each sample fraction, then the parties agree that such Additional Metal is not intended to be characterized as known to be present in the emissions from the Palmerton Facility for purposes of reporting pursuant to Section 313 of the Emergency Planning and Community Right-to-Know Act and its implementing regulations at 40 CFR Part 372, and shall not be required to be included in emission estimations for the Facility, in accordance with 25 Pa. Code § 135.3.

97. Defendant shall perform initial Emissions Testing according to the schedule in Tables 1B and 1C. Following the initial Emissions Testing of 1B and 1C sources, subsequent Emissions Testing shall be adjusted from the required

frequency specified in Tables 1B and 1C, as applicable, as follows:

a. If the PM results from the initial Emissions Test or any two later and consecutive Emissions Tests are less than 50% the Title V Permit PM standard, then Defendant may conduct PM Emissions Testing once every five (5) years for such sources, as applicable.

b. If the PM results from the initial Emissions Test or any two later and consecutive Emissions Tests are less than 20% of the Title V Permit PM standard, then Defendant shall not be obligated to conduct any subsequent PM Emissions Testing for such sources under this Consent Decree.

c. If the SOx results from the initial Emissions Test of the sources listed in Table 1B.2. (F2 Kiln Discharge Area Fugitive Dust Collector) and Table 1B.3. (F1 Kiln Discharge Area Fugitive Dust Collector) correspond to an aggregate annual emission rate of less than 100 tpy, then Defendant shall not be obligated to conduct any subsequent SOx Emissions Testing for such sources under this Consent Decree.

This Paragraph 97 is not intended to relieve Defendant of any statutory, regulatory or permit obligation that would otherwise apply.

98. Defendant agrees to the following for any Emissions Tests performed on Kiln #1, Kiln #2, Kiln #5 or Kiln #6, in Waelzing or Calcining mode, as applicable, for each kiln:

a. each of the three (3) required Emissions Test runs shall be conducted for a minimum of two (2) hours per run;

b. an Emissions Test protocol shall be submitted for each Emissions Test to be conducted, that will propose procedures for the sampling and analysis of Waelz Oxide, Iron Rich Material, Lead Chloride, and Zinc Calcine at the end of each of the three (3) Emissions Test runs for the metals tested in the Emissions Test. The analysis using EPA's SW-846 (Update VI) Method 6010D or an equivalent test method as

specified and approved in the test protocol shall be performed by an independent and certified analytical laboratory; and

c. proposed procedures shall be submitted for (1) determining the ratio of the EAF dust to carbon (for kilns operating in Waelzing mode), and (2) sampling of Waelz oxide feed (for kilns operating in Calcining mode). Each of these feed materials shall be separately sampled at the beginning and end of testing, as well as at thirty (30) minute intervals during testing, compositing each feed material's thirty (30) minute aliquots into separate feed material samples per test run for analysis by an independent and certified analytical laboratory using EPA's SW-846 (Update VI) Method 6010D or an equivalent test method as specified and approved in the test protocol.

99. Defendant shall identify any non-detect values in the Emissions Test report. All laboratory data including raw data, calibrations, and minimum detection levels shall be provided in the test report required to be submitted pursuant to Paragraph 102 of this Consent Decree.

100. Defendant shall apply the procedures and practices contained in the EPA Best Practices Handbook for Method 202, for any Emissions Test using EPA Method 202, 40 C.F.R. Part 51, Appendix M.

101. During Emissions Testing, Defendant shall record all applicable operating parameters in Paragraphs 80, 83, and 84 at 15-minute intervals, unless Defendant is required by Paragraph 80 to record this data continuously. These operating parameter data shall be included in the Emissions Test report required to be submitted pursuant to Paragraph 102, below. For the purpose of Emissions Testing, the data collected pursuant to Paragraph 80.a.

and f. through l., shall be reported as one-minute averages for the duration of each Emissions Test run. The one-minute averages may then be used to determine any further average, such as run average, hourly rolling average, or block hour average.

102. No later than sixty (60) Days after completion of any Emissions Test, Defendant shall submit an Emissions Test report to EPA and PADEP.

103. Following the completion of the initial Emissions Test for each Kiln, Defendant shall collect samples of Waelz Oxide, IRM, Zinc Calcine and Lead Chloride on a monthly composite basis. The monthly composite samples are to be obtained by sampling the same amount of each material once per operating day for the respective Kiln in the respective operating mode, and combining each of these equally sized samples to be analyzed for all metals included Table 1A. Defendant may propose a reduction in the frequency and/or extent of such sampling based on consistency of sampling results determined in accordance with this provision.

4. Air Emissions Calculations and Reporting

104. By March 1 of each year, consistent with the requirements of 25 PA Code Section 135, Defendant shall submit to PADEP, information, documentation, and calculations for the determination of total Facility-wide annual emissions, including all fugitive emissions sources and emissions by

source. Defendant shall use the most representative information available to calculate these emissions. In determining the most representative information, Defendant shall expressly consider the most recent data obtained through testing under Paragraphs 95 through 102, any sampling data obtained during the applicable reporting year, including the monthly composite sampling data pursuant to Paragraph 103, and Defendant's best engineering judgment. To the extent that the data used by Defendant to calculate emissions is not consistent with the most recent data obtained through testing, then Defendant must include with its calculations an explanation for such inconsistency.

105. Defendant shall keep records of the emission calculations required by Section V.C. of this Consent Decree (Clean Air Act Compliance Requirements), including all supporting documentation.

5. Fugitive Emissions

106. No later than the Effective Date, Defendant shall implement the Fugitive Dust Control Plan attached to this Consent Decree as Appendix A. Defendant shall assess at least annually the Fugitive Dust Control Plan, including by reviewing the effectiveness of the Fugitive Dust Control Plan at minimizing the generation of fugitive dust and determining whether any update is necessary to reflect changes to existing measures and the

introduction of new measures, consistent with the objectives of the Fugitive Dust Control Plan.

107. If any updates are made to the Fugitive Dust Control Plan pursuant to Paragraph 106, Defendant shall submit a copy of the updated Fugitive Dust Control Plan with the next semi-annual report due to be submitted in accordance with Paragraph 124 of this Consent Decree.

108. Until such time as PADEP modifies the Facility's Title V Permit to require compliance with the applicable Fugitive Dust Control Plan, Defendant shall include within its semi-annual reports submitted in accordance with Paragraph 124 a description of compliance with the Fugitive Dust Control Plan.

6. Emergency Generator

109. No later than one (1) year after the Effective Date, Defendant shall install, and thereafter operate, and maintain, in accordance with manufacturer's specifications, and applicable regulations, an Emergency Generator for Kiln #6 (Source ID 153). Defendant shall keep maintenance and operational records for such Emergency Generator.

Table 1A – Product Collectors - Emissions Testing Requirements

Name of Source	Source ID	Test Method and Applicable Pollutants	Test Schedule/Frequency
1. Kiln 1 Waelzing	FML 01, FML 03, PROC 149, CNTL C04, CNTL 67, STAC S04, STAC S67	Test for CO, using Method 10	Annual testing as required in Title 5 Permit at E. Group 2 #005.
2. Kiln 1 Waelzing	FML 01, FML 03, PROC 149, CNTL C04, CNTL 67, STAC S04, STAC S67	Initial Emissions Test: Test for Additional Metals in Method 29 train (arsenic (As), cadmium (Cd), chromium (Cr), cobalt (Co), mercury (Hg), manganese (Mn), nickel (Ni), zinc (Zn)) All Tests: Test for total PM (filterable and condensable), using Methods 1-5 plus 202 Test for lead (Pb) using Method 29	Initial test 1 year from Effective Date; at a frequency of no more than 3 years between subsequent tests.
3. Kiln 1 Waelzing	FML 01, FML 03, PROC 149, CNTL C04, CNTL 67, STAC S04, STAC S67	Test for SOx, using Method 8 Test for VOCs, using Method 25 unless the Non-Methane Hydrocarbons (NMHCs) are less than 50 ppmvd as carbon. If so, use Method 25A/18 Test for NO_x, using Method 7E	Initial test 1 year from Effective Date; at a frequency of no more than 5 years between subsequent tests.
4. Kiln 1 Calcining	FML 01, FML 03, PROC 149, CNTL C04, CNTL 67, STAC S04, STAC S67	Initial Emissions Test: Test for Additional Metals in Method 29 train (arsenic (As), cadmium (Cd), chromium (Cr), cobalt (Co), mercury (Hg), manganese (Mn), nickel (Ni), zinc (Zn)) All Tests: Test for total PM (filterable and condensable): Methods 1-5 plus 202 Method 29 for lead (Pb)	Initial test 1 year from Effective Date; at a frequency of no more than 3 years between subsequent tests.

Name of Source	Source ID	Test Method and Applicable Pollutants	Test Schedule/Frequency
5. Kiln 1 Calcining	FML 01, FML 03, PROC 149, CNTL C04, CNTL 67, STAC S04, STAC S67	Test for SOx, using Method 8 Test for VOCs using Method 25 unless the Non-Methane Hydrocarbons (NMHCs) are less than 50 ppmvd as carbon. If so, then use Method 25A/18 Test for NO_x, using Method 7E Test for CO, using Method 10	Initial test 1 year from Effective Date; at a frequency of no more than 5 years between subsequent tests.
6. Kiln 2 Waelzing	FML 01, FML 03, PROC 150, CNTL C05, STAC S05	Initial Emissions Test: Test for Additional Metals in Method 29 train (arsenic (As), cadmium (Cd), chromium (Cr), cobalt (Co), mercury (Hg), manganese (Mn), nickel (Ni), zinc (Zn)) All Tests: Test for total PM (filterable and condensable) using Methods 1-5 plus 202 Test for lead (Pb), using Method 29	Initial test 1 year from Effective Date; at a frequency of no more than 3 years between subsequent tests.
7. Kiln 2 Waelzing	FML 01, FML 03, PROC 150, CNTL C05, STAC S05	Test for SOx, using Method 8 Test for CO, using Method 10 Test for VOCs, using Method 25 unless the Non-Methane Hydrocarbons (NMHCs) are less than 50 ppmvd as carbon. If so, then Method 25A/18 Test for NO_x, using Method 7E	Initial test 1 year from Effective Date; at a frequency of no more than 5 years between subsequent tests.
8. Kiln 5 Waelzing	FML 01, FML 03, PROC 152, CNTL C07, STAC S07	Initial Emissions Test: Test for Additional Metals in Method 29 train (arsenic (As), cadmium (Cd), chromium (Cr), cobalt (Co), mercury (Hg), manganese (Mn), nickel (Ni), zinc (Zn)) All Tests: Test for total PM (filterable and condensable), using Methods 1-5 plus 202 Test for lead (Pb), using Method 29	Initial test 1 year from Effective Date; at a frequency of no more than 3 years between subsequent tests.

Name of Source	Source ID	Test Method and Applicable Pollutants	Test Schedule/Frequency
9. Kiln 5 Waelzing	FML 01, FML 03, PROC 152, CNTL C07, STAC S07	Test for SOx, using Method 8 Test for CO, using Method 10 Test for VOCs, using Method 25; unless the Non-Methane Hydrocarbons (NMHCs) are less than 50 ppmvd as carbon, then use Method 25A/18 Test for NO_x, using Method 7E	Initial test 1 year from Effective Date; at a frequency of no more than 5 years between subsequent tests.
10. Kiln 6 Calcining	FML 01, FML 03, PROC 153, CNTL C16, STAC S96	Initial Emissions Test: Test for Additional Metals in Method 29 train (arsenic (As), cadmium (Cd), chromium (Cr), cobalt (Co), mercury (Hg), manganese (Mn), nickel (Ni), zinc (Zn)) All Tests: Test for total PM (filterable and condensable), using Methods 1-5 plus 202 Test for lead (Pb), using Method 29	Initial test 1 year from Effective Date; at a frequency of no more than 3 years between subsequent tests.
11. Kiln 6 Calcining	FML 01, FML 03, PROC 153, CNTL C16, STAC S96	Test for SOx, using Method 8 Test for CO, using Method 10 Test for VOCs, using Method 25unless the Non-Methane Hydrocarbons (NMHCs) are less than 50 ppmvd as carbon, then use Method 25A/18 Test for NO_x, using Method 7E	Initial test 1 year from Effective Date; at a frequency of no more than 5 years between subsequent tests.

Table 1B – Baghouses – Emissions Testing Requirements

Name of Source	Source ID	Test Method and Applicable Pollutants	Test Schedule/Frequency
1. Lead Concentrate Sack Packer	PROC 237, CNTL C59, STAC S59	Initial Emissions Test: Additional Metals in Method 29 train (arsenic (As), cadmium (Cd), chromium (Cr), cobalt (Co), mercury (Hg), manganese (Mn), nickel (Ni), zinc (Zn)) All Tests: Test for total PM (filterable and condensable), using Methods 1-5 plus 202 Test for lead (Pb), using Method 29	Initial test 2 years from Effective Date; At a frequency of no more than 3 years between subsequent tests
2. F2 Kiln Discharge Area Fugitive Dust Collector	PROC 238, CNTL C60. STAC S60	Initial Emissions Test: Additional Metals in Method 29 train (arsenic (As), cadmium (Cd), chromium (Cr), cobalt (Co), mercury (Hg), manganese (Mn), nickel (Ni), zinc (Zn)) All Tests: Test for SOx using Method 8 Test for total PM (filterable and condensable), using Methods 1-5 plus 202 Test for lead (Pb), using Method 29	Initial test 2 years from Effective Date; At a frequency of no more than 3 years between subsequent tests
3. F1 Kiln Discharge Area Fugitive Dust Collector	PROC 239, CNTL C61, STAC S61	Initial Emissions Test: Additional Metals in Method 29 train (arsenic (As), cadmium (Cd), chromium (Cr), cobalt (Co), mercury (Hg), manganese (Mn), nickel (Ni), zinc (Zn) All Tests: Test for SOx using Method 8 Test for total PM (filterable and condensable), using Methods 1-5 plus 202 Test for lead (Pb), using Method 29	Initial test 2 years from Effective Date; At a frequency of no more than 3 years between subsequent tests
4. Truck Sweep Station/Material	PROC 236, CNTL C58, STAC S58	Initial Emissions Test: Additional Metals in Method 29 train (arsenic (As), cadmium (Cd), chromium (Cr),	Initial test 2 years from Effective Date; At a frequency of no more than 3

Conveyor Transfer (Bldg 608 Pickup)		cobalt (Co), mercury (Hg), manganese (Mn), nickel (Ni), zinc (Zn)) <u>All Tests:</u> Test for total PM (filterable and condensable), using Methods 1-5 plus 202 Test for lead (Pb), using Method 29	years between subsequent tests
5. Feed Hopper Loading	PROC 233, CNTL C54, STAC S54	<u>Initial Emissions Test</u>: Additional Metals in Method 29 train (arsenic (As), cadmium (Cd), chromium (Cr), cobalt (Co), mercury (Hg), manganese (Mn), nickel (Ni), zinc (Zn)) <u>All Tests:</u> Test for total PM (filterable and condensable), using Methods 1-5 plus 202 Test for lead (Pb), using Method 29	Initial test 2 years from Effective Date; At a frequency of no more than 3 years between subsequent tests

Table 1C – Smaller Baghouses -Emissions Testing

Name of Source	Source ID	Test Method and Applicable Pollutants	Test Schedule/Frequency
1. PD Railcar unloading	PROC 213, CNTL C29, STAC S27, CNTL C29A, STAC S27A	Test for filterable PM, using Methods 1-5.	Initial test 3 years from Effective Date; At a frequency of no more than 3 years between subsequent tests
2. CZO Unloading System	PROC 214, CNTL C66, STAC S66	Test for filterable PM, using Methods 1-5.	Initial test 3 years from Effective Date; At a frequency of no more than 3 years between subsequent tests
3. Lead Concentrate Pneumatic Conveyer	PROC 230, CNTL C51, STAC S51	Test for filterable PM, using Methods 1-5.	Initial test 3 years from Effective Date; At a frequency of no more than 3 years between subsequent tests
4. EAF Dust Railcar Unloading	PROC 235, CNTL C56, STAC S56, CNTL C57, STAC S57	Test for filterable PM, using Methods 1-5.	Initial test 3 years from Effective Date; At a frequency of no more than 3 years between subsequent tests
5. Kiln Feed Conveying System	PROC 245, CNTL C63, STAC S63	Test for filterable PM, using Methods 1-5.	Initial test 3 years from Effective Date; At a frequency of no more than 3 years between subsequent tests
6. Pneumatic Materials Handling	PROC 246, CNTL C64A–E, STAC S64A-E	Test for filterable PM, using Methods 1-5.	Initial test 3 years from Effective Date; At a frequency of no more than 3 years between subsequent tests
7. Calcine Kiln Feed Receiving Bin	PROC 248, CNTL C67, STAC S67	Test for filterable PM, using Methods 1-5.	Initial test 3 years from Effective Date; At a frequency of no more than 3 years between subsequent tests
8. C2 Conveyer Transfer Point	PROC 234, CNTL C55, STAC S55	Test for filterable PM, using Methods 1-5.	Initial test 3 years from Effective Date; At a frequency of no more than 3 years between subsequent tests

VI. APPROVAL OF DELIVERABLES

110. At the time of submittal to EPA of any item requiring EPA approval under this Consent Decree, Defendant shall also submit a copy of said item to PADEP. All written submittals requiring approval under this Consent Decree shall be submitted by email, unless impracticable. After review of any plan, report, or other item that is required to be submitted for EPA approval pursuant to this Consent Decree, EPA after consultation with PADEP, shall in writing: (a) approve the submission; (b) approve the submission upon specified conditions; (c) approve part of the submission and disapprove the remainder; or (d) disapprove the submission.

111. If the submission is approved pursuant to Paragraph 110(a), Defendant shall take all actions required by the plan, report, or other document, in accordance with the schedules and requirements of the plan, report, or other document, as approved. If the submission is conditionally approved or approved only in part pursuant to Paragraph 110(b) or (c), Defendant shall, upon written direction from EPA, after consultation with PADEP, take all actions required by the approved plan, report, or other item that EPA, after consultation with PADEP, determines are technically severable from any disapproved portions, subject to Defendant's right to dispute only the specified conditions or the disapproved portions, under Section XII (Dispute

Resolution). If the submission is disapproved in whole or in part pursuant to Paragraph 110(c) or (d), Defendant shall, within forty-five (45) Days or such other time as the Parties agree to in writing, correct all deficiencies and resubmit the plan, report, or other item, or disapproved portion thereof, for approval, in accordance with the preceding Paragraphs. If the resubmission is approved in whole or in part, Defendant shall proceed in accordance with this Paragraph 111.

112. If a resubmitted plan, report, or other item, or portion thereof, is disapproved in whole or in part, EPA, after consultation with PADEP, may again require Defendant to correct any deficiencies, in accordance with the preceding Paragraphs, or may itself correct any deficiencies, subject to Defendant's right to invoke Dispute Resolution and the right of EPA and PADEP to seek stipulated penalties. Any stipulated penalties applicable to the original submission, as provided in Section X (Stipulated Penalties), shall accrue during the forty-five (45) Day period or other specified period for AZR to correct and resubmit, but shall not be payable unless the resubmission is untimely or is disapproved in whole or in part; provided that, if the original submission was so deficient as to constitute a material breach of Defendant's obligations under this Decree, the stipulated penalties applicable to the original submission shall be due and payable notwithstanding any

subsequent resubmission.

VII. PERMITTING

1. Timely, Complete, and Accurate Permit Applications for Compliance Obligations

113. Whenever any compliance obligation under Section V (Compliance Requirements) requires AZR to obtain a federal, state, or local permit or approval, or authorization, AZR shall submit timely, complete, and accurate applications for permits or other authorizations that comply with all applicable statutory and regulatory requirements and take all other actions necessary to obtain all such permits or approvals. If AZR fails to submit a timely, accurate, and complete permit application and timely take all other actions requested by the relevant permitting agency, AZR shall be barred from asserting a claim under Section XI (Force Majeure) of the Consent Decree that is based on delays in receiving necessary permits.

114. AZR may seek relief under the provisions of Section XI (Force Majeure) for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if AZR has submitted timely and complete applications and has taken all other actions necessary to obtain all such permits or approvals.

2. Consent Decree Provisions to be Incorporated into Permits and Survive Termination of this Consent Decree

115. No later than two years after the Effective Date, AZR shall submit accurate and complete applications to PADEP seeking to incorporate into AZR's NPDES Permit the following requirements of Section V.A. (Clean Water Act Compliance Requirements): sampling in accordance with a representative sampling plan, consistent with the provisions of Paragraph 23, and maintenance and implementation of a SWPPP, consistent with the provisions of Paragraphs 25 and 26.

116. No later than forty-five (45) Days after the Effective Date, AZR agrees to modify its current RCRA Permit Application for Permit No. PAD002395887 to include requirements to (a) operate in accordance with the SOP for Truck Washing developed pursuant to Paragraph 72 of this Consent Decree, and (b) review and update this SOP, as appropriate.

117. No later than thirty days after completion of the requirements of Paragraphs 58-60, above, AZR agrees to modify its current RCRA Permit Application for Permit No. PAD002395887 to include the Closure Plan, Closure Cost Estimate, and bonding amount documents required by Paragraphs 58-60 of this Consent Decree as part of attachments to the RCRA Permit.

118. No later than two years after the Effective Date, AZR shall submit accurate and complete applications to PADEP seeking to incorporate into non-Title V

construction permits, whether as new permits or modifications to existing permits, that are federally enforceable and will survive termination of this Consent Decree, the following requirements of this Consent Decree:

a. The requirement to operate in accordance with a fugitive dust control plan consistent with the scope and objectives of the Fugitive Dust Control Plan addressed in Paragraph 106, as may be updated including pursuant to Paragraph 107.

b. The requirement to operate BLDS on the Product Collectors for the Kilns and to record the BLDS sensor output, as set forth in Paragraph 82, and to implement applicable response actions, as set forth in Paragraphs 88-90.

c. The requirement to maintain each Baghouse within the appropriate pressure drop operating range established in Table 1 in Paragraph 86, as may be adjusted, including pursuant to Paragraph 87.

d. The requirement to monitor and record pressure drop at each Baghouse, as set forth in Paragraphs 83-84, and to implement applicable response actions as set forth in Paragraphs 88-90.

e. The requirement to replace Product Collector bags and Baghouse bags at the frequencies determined based on the laboratory assessments performed, and to maintain records of such bag replacements,

pursuant to Paragraph 91.

f. The requirement to operate an emergency generator for Kiln #6 and keep maintenance and operational records for such emergency generator, as set forth in Paragraph 109.

g. The requirement to conduct air emissions testing for CO, PM, and Pb for those sources in Table 1A in accordance with Paragraphs 95 through 102, as applicable, every five (5) years subsequent to the termination of the Consent Decree, with the exception of CO testing on Kiln 1 in Waelzing mode, which is to be conducted in accordance with the schedule required in the Title V permit.

119. Incorporation into Title V Permit. Following issuance of any air quality plan approval required pursuant to Paragraph 118, above, AZR shall file any application necessary to incorporate the requirements of that permit or approval into the Palmerton Facility's Title V Permit. The Parties agree that the incorporation of the requirements of plan approvals required by Paragraph 118, above, into AZR's Title V Permit shall be in accordance with the applicable federal, State, or local statutes and regulations. AZR shall not challenge the inclusion in the Title V Permit of the requirements expressly prescribed by this Consent Decree.

VIII. TRAINING

120. Environmental Compliance Training. Defendant shall provide and require annual training for all AZR employees with environmental responsibilities under this Consent Decree. Training materials shall be developed, and training shall be provided, by qualified personnel. The training shall include all applicable Clean Water Act, Clean Air Act, Oil Pollution Act, and RCRA requirements, including applicable permit requirements, SOPs, plans, and operation and maintenance requirements, under this Consent Decree and all of its appendices. The training shall relate to each employee's responsibilities and shall cover any applicable requirements under this Consent Decree. The training of current employees shall be conducted no later than one hundred twenty (120) Days after the Effective Date. Training of new employees governed by this Paragraph shall be conducted in advance of new employees assuming their duties.

121. Contractor and Consultant Training. Defendant shall require, as a condition of any contract for the performance of work at the Facility under this Consent Decree, that the contractor has trained its employees for compliance with the applicable environmental regulations for all work to be performed at the Facility under the contract, and that such training conform with the following requirements.

a. The training shall relate to the individual's responsibilities and shall

cover any applicable requirements under this Consent Decree, including SOPs, plans, and operation and maintenance requirements under this Consent Decree and all of its associated attachments and appendices.

b. Training materials shall be developed, and training shall be provided, by qualified personnel.

c. For current contractors, consultants, and laboratory personnel, the training shall be conducted no later than one hundred and twenty (120) Days after the Effective Date. For contractors, consultants, and laboratory personnel hired subsequent to lodging of this Consent Decree, training shall be conducted in advance of implementation of the contractor's duties.

d. The contractor shall keep records of such training.

122. All training conducted pursuant to Paragraph 120, above, shall be documented with the date of training, list of attendees, a summary of training topics, and copies of training materials. Such documentation, exclusive of copies of training materials (except as provided in this Paragraph 122), shall be included in the next semi-annual report submitted after completion of the training session(s). Copies of training materials shall be submitted one time only with the second semi-annual report required to

be submitted pursuant to Paragraph 124 of this Consent Decree. The date on which Defendant completes the initial training shall be known as the "Training Anniversary." During each calendar year, Defendant shall ensure that refresher training is performed within thirty (30) Days of the Training Anniversary.

123. Nothing in this Consent Decree shall be construed to affect Defendant's obligations to provide training to the extent otherwise required under federal, state, or local statutes, regulations, or permits.

IX. REPORTING REQUIREMENTS

124. By July 31st and January 31st of each year after the Effective Date of this Consent Decree, until termination of this Decree pursuant to Section XX, Defendant shall submit by electronic mail or regular mail, to EPA and PADEP, a semi-annual report for the preceding six (6) months that shall include a detailed description of the following actions under this Consent Decree:

a. The status of any construction or compliance measures;

b. completion of milestones;

c. problems encountered or anticipated, together with implemented or proposed solutions;

d. reports of upcoming deadlines for the following year, including anticipated issues, and explanations, meeting any such deadlines;

e. status of permit applications;

f. operation and maintenance activities undertaken during the reporting period and planned for the next six (6) months; and

g. any reports submitted to state permitting agencies pertaining to compliance with this Consent Decree.

125. The semi-annual report shall also include a description of any non-compliance with the requirements of this Consent Decree and an explanation of the likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such noncompliance.

126. If Defendant violates, or has reason to believe that it may violate, any requirement of this Consent Decree, Defendant shall notify the United States, EPA, and PADEP of such violation and its likely duration, in writing, within ten (10) business days of the date Defendant first becomes aware of the violation, with an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation. If the cause of a violation cannot be fully explained at the time the report is due, Defendant shall so state in the report. Defendant shall investigate the cause of the violation and shall then submit an amendment to the report, including a full explanation of the cause of the violation, within thirty (30) Days of the date Defendant becomes aware of the cause of the violation. Nothing in this Paragraph 126 or the following Paragraph 127 relieves

Defendant of its obligation to provide the notice required by Section XI (Force Majeure).

127. Whenever any violation of this Consent Decree may pose an immediate threat to the public health or welfare or the environment, Defendant shall notify EPA and PADEP orally or by email as soon as practicable, but no later than 24 hours after Defendant first knew of the violation. This procedure is in addition to the requirements set forth in the preceding Paragraph 126.

128. Any report required to be submitted pursuant to this Consent Decree shall be submitted to the persons designated in Section XVI (Notices).

129. Each report submitted by Defendant under this Section shall be signed by an official of the submitting party and include the following certification:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

This certification requirement does not apply to emergency or similar notifications where compliance would be impractical.

130. The reporting requirements of this Consent Decree do not relieve Defendant of any reporting obligations imposed by the CAA, CWA, RCRA, SDWA, or EPCRA or implementing regulations, or by any other federal, state, or local law, regulation, permit, or other requirement.

131. Any information provided pursuant to this Consent Decree may be used by the United States in any proceeding to enforce the provisions of this Consent Decree and as otherwise permitted by law.

X. STIPULATED PENALTIES

132. Defendant shall be liable for stipulated penalties to the United States and PADEP for violations of this Consent Decree as specified below, unless excused under Section XI (Force Majeure).

Table 2

Consent Decree Paragraph Number	**Summary Statement of Consent Decree Requirement**	**Penalty**
IV	Payment of the civil penalty required to be paid when due	$3,000 Per Day
5	For failure to comply with the Transfer of Ownership or Operation Requirements	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
18	For failure to timely submit a Scope of Work for the investigation of the Stormwater, Process Water, and Non-Contact Cooling water systems	Per Day: $500 1st through 14th Day $1,000 15th through 30th Day $2,000 31st Day and beyond

Consent Decree Paragraph Number	**Summary Statement of Consent Decree Requirement**	**Penalty**
19	For failure to commence implementation of the Stormwater, Process Water, and Non-Contact Cooling Water Systems SOW following EPA's approval	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
21	For failure to timely submit an Investigation Report	Per Day: $500 1st through 14th Day $1,000 15th through 30th Day $2,000 31st Day and beyond
22	For failure to timely commence implementation of the corrective measures contained in the Investigation Report	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
23	For failure to timely submit Representative Sampling Plan	Per Day: $500 1st through 14th Day $1,000 15th through 30th Day $2,000 31st Day and beyond
24	For failure to timely commence implementation of the Representative Sampling Plan, within ten days of receipt of EPA's approval	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
25	For failure to timely implement a Stormwater Pollution Prevention Plan	Per Day: $500 1st through 14th Day $1,000 15th through 30th Day $2,000 31st Day and beyond
26	For failure to timely submit updated SWPPP	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
34	For failure to timely submit an Infiltration Investigation Report after EPA's approval of the Stormwater, Process Water, and Non-Contact Cooling Water Investigation Report	Per Day: $500 1st through 14th Day $1,000 15th through 30th Day $2,000 31st Day and beyond

Consent Decree Paragraph Number	Summary Statement of Consent Decree Requirement	Penalty
35	For failure to commence implementation, if necessary, of the UIC Management Plan	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
36	For failure to timely submit to EPA a Final UIC Report, or revised Final UIC report, if so required	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
39	Failure to timely provide documentation to EPA that AZR has revised and/or corrected the Palmerton Facility's Integrated Preparedness, Prevention, and Contingency Plan (ICP) in compliance with the requirements under 40 C.F.R. Part 112, and as required by Paragraph 39	Per Day: $500 1st through 14th Day $1,000 15th through 30th Day $2,000 31st Day and beyond
40	For failure to comply with the requirements relating to introducing hazardous waste into the Waelzing or Calcining Kilns in accordance with Paragraph 40	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
41 - 44	For failure to manage Lead Concentrate in accordance with Paragraphs 41-44	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
46(a)–(e)	For failure to implement the requirements for the PD Station	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
47	Failure to have a qualified, registered third-party Professional Engineer perform an inspection of the EAF Dust storage and truck wash building known as Building 608 and Building 624 to	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond

Consent Decree Paragraph Number	Summary Statement of Consent Decree Requirement	Penalty
	ensure compliance with the Containment Building Requirements	
48	For failure to timely submit the PE Report	$1,000 Per Day
48(a)	For failure to timely implement the PE Report recommendations	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
48(b)	For failure to timely submit PE determination following re-inspection	$1,000 Per Day
48(b)	For failure to implement additional work pursuant to the PE's determination	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
48(c)	For failure to timely submit PE certification	$1,000 Per Day
49	For failure to timely submit Annual Inspection Report	$1,000 Per Day
50(a)	For failure to timely submit Consultant's Inspection Report	$1,000 Per Day
50(b)	For failure to timely implement the Consultant's Inspection Report recommendations	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
50(c)	For failure to timely submit Consultant determination following re-inspection	$1,000 Per Day
50(c)	For failure to implement additional work pursuant to the Consultant's determination	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
50(d)	For failure to timely submit Consultant certification	$1,000 Per Day
53, 55	For failure to store CZO in accordance with Paragraph 53 or 55;	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day

Consent Decree Paragraph Number	**Summary Statement of Consent Decree Requirement**	**Penalty**
		$4,000 31st Day and beyond
57	For failure to store Calcine Feed Materials in accordance with Paragraph 57	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
58	For failure to timely obtain a third-party determination for closure cost	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
58	For failure to timely submit Closure Cost Estimate	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
59	For failure to comply with the closure bond requirements in accordance with Paragraph 59	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
60	For failure to timely submit Closure Plan	$1,500 Per Day
61	For failure to store hazardous waste Kiln rubble and Kiln brick in accordance with 25 Pa. Code § 262a.10 which incorporates by reference 40 C.F.R. § 262.34 (re-codified as 40 C.F.R. § 262.17).	Per Day: $500 per day
62	Failure to post signs on the Lime Bunker prohibiting, at all times, the storage of hazardous waste, including hazardous waste Kiln rubble and Kiln brick on the ground in the Lime Bunker.	$500 for initial violation, then $1000 per 30-Day period thereafter
63	Failure to conduct and document weekly inspections of the Lime Bunker in accordance with 40 C.F.R. § 265.173 for any week in which hazardous waste is stored in containers as that term is	Per Day: $500 per day

Consent Decree Paragraph Number	Summary Statement of Consent Decree Requirement	Penalty
	defined by 25 Pa Code § 260a.1 which incorporates by reference 40 C.F.R. § 260.10 within the Lime Bunker.	
64	For failure post hours of operation at the Facility entrances	$500 for initial violation, then $500 per 30-Day period thereafter
65	For failure to timely submit Iron Rich Material Management Plan	$1,000 Per Day
65	For failure to timely implement the Iron Rich Material Management Plan	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
66	For failure to timely submit IRM Pad Regulatory Justification	$1,000 Per Day
68	For failure to operate and maintain the IRM Storage Building in accordance with the requirements of 25 Pa. Code Chapter 299.	$500 Per Day
70	For failure to timely submit the PD Station SOP	$1,000 Per Day
70	For failure to implement the PD Station SOP	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
71, 73, 74	For failure to implement the requirements for the Truck Wash	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
72	For failure to timely submit the Truck Washing SOP	$1,000 Per Day
72	For failure to implement the Truck Washing SOP	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond

Consent Decree Paragraph Number	**Summary Statement of Consent Decree Requirement**	**Penalty**
76	Failure to retain all video recordings required by Paragraphs 71 and 72, above, for each truck leaving the Truck Wash Building 624 for at least ninety (90) Days from the time each truck leaves the Truck Wash Building 624.	$500 Per Day
77	For failure to timely submit Storage Pile Removal Plan	$1,000 Per Day
77	For failure to timely implement the Storage Pile Removal Plan following EPA's approval	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
78	Failure to annually update the SOPs and plans	Per Day: $500 1st through 14th Day $1,000 15th through 30th Day $2,000 31st Day and beyond
79	For failure to timely submit Settling Basin Regulatory Justification	$1,000 Per Day
79	For failure to timely implement the Settling Basins Regulatory Justification	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
80-81	For failure to perform parametric monitoring in accordance with Paragraph 80	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
80-81	For failure to perform recordkeeping in accordance with Paragraph 80	Per Day: $500 1st through 14th Day $1,000 15th through 30th Day $2,000 31st Day and beyond
81	For failure to install scales on the Kilns to determine feed rate, in accordance with Paragraph 81	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond

Consent Decree Paragraph Number	Summary Statement of Consent Decree Requirement	Penalty
82	For failure to install BLDS on the Product Collectors for the Kilns in accordance with Paragraph 82	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
82	For failure to operate the BLDS on the Product Collectors for the Kilns in accordance with Paragraph 82	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
83-84	For failure to monitor pressure drop at each Baghouse in accordance with Paragraphs 83-84	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
83-84	For failure to record pressure drop for each Baghouse in accordance with Paragraphs 83-84	Per Day: $500 1st through 14th Day $1,000 15th through 30th Day $2,000 31st Day and beyond
86-87	For failure to maintain each Baghouse within the appropriate pressure drop operating range established in Table 1 in Paragraph 86, or any alternative pressure drop operating range in accordance with Paragraph 87	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
88	Failure to take corrective action in accordance with Paragraph 88	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
90	Failure to maintain records of each pressure drop excursion or BLDS alarm, in accordance with Paragraph 90	Per Day: $500 1st through 14th Day $1,000 15th through 30th Day $2,000 31st Day and beyond
90	For failure to correct an excursion from the applicable pressure drop operating range for an affected Baghouse or correct a leak at an affected Product Collector bag, or, alternatively, to shut	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond

Consent Decree Paragraph Number	Summary Statement of Consent Decree Requirement	Penalty
	down the relevant air contamination source within seventy-two (72) hours of when the system first identifies an excursion outside the applicable pressure drop operating range or the BLDS alarm sounds, in accordance with Paragraph 91	
90	For failure to notify EPA and PADEP within twenty-four (24) hours of the end of the 72-hour period provided for responsive actions in accordance with Paragraph 91	$500 Per Day
91	For failure to commission laboratory assessments of the Product Collector bags or the Baghouse bags in accordance with Paragraph 92	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
91	For failure to replace the Product Collector bags or the Baghouse bags based on the appropriate replacement frequencies determined by the laboratory assessments	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
92	For failure to submit to EPA and PADEP required information prior to installation of any new Baghouse or Product Collector in accordance with Paragraph 93	$500 Per Day
93	Failure to keep the current list of Baghouses and their associated pressure drop ranges at the Facility	Per Day:$500 1st through 14th Day $1,000 15th through 30th Day $2,000 31st Day and beyond
94	For failure to operate COMS on the Kilns in accordance with Paragraph 94	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond

Consent Decree Paragraph Number	Summary Statement of Consent Decree Requirement	Penalty
95	For failure to timely submit an Emissions Test protocol to EPA and PADEP	$500 Per Day
96-101	For failure to complete an Emissions Test in accordance with any requirement of Paragraphs 96-101	$1,000 Per Day
102	For failure to submit an Emissions Test report in accordance with any requirement of Paragraph 103	$500 Per Day
103	For failure to collect monthly composite samples of WOx, IRM, Zinc Calcine, and Lead Chloride following completion of the initial Emissions Test for each Kiln in accordance with Paragraph 103	$1,000 Per Day
104	For failure to submit by March 1 of each year information, documentation, and calculations for the determination of total Facility-wide annual emissions in accordance with Paragraph 104	$500 Per Day
105	Failure to keep records of the emission calculations in accordance with Section V.C. of this Consent Decree (Clean Air Act Compliance Requirements), including all supporting documentation, in accordance with Paragraph 105	Per Day: $500 1st through 14th Day $1,000 15th through 30th Day $2,000 31st Day and beyond
106	For failure to implement the FDCP	$1000 Per Day
109	For failure to install and operate an Emergency Generator for Kiln #6 in accordance with Paragraph 109	Per Day: $1,000 1st through 14th Day $2,000 15th through 30th Day $4,000 31st Day and beyond
115 - 119	For failure to submit permit applications or modifications in accordance with Paragraphs 115-119	$500 Per Day, Per Violation

Consent Decree Paragraph Number	**Summary Statement of Consent Decree Requirement**	**Penalty**
VIII	For failure to satisfy requirements applicable to training	$1,000, Per Individual
IX	Violation of the semi-annual reporting requirements included Section IX	$500 Per Day

133. Stipulated penalties under this Section shall begin to accrue on the Day after performance is due or on the Day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases.

134. Stipulated penalties shall accrue simultaneously for separate violations of this Consent Decree.

135. Defendant shall pay stipulated penalties to the United States and PADEP within thirty (30) Days of receiving a written demand by either Plaintiff. Defendant shall pay fifty (50) percent of the total stipulated penalty amount due to the United States and fifty (50) percent to the State. The Plaintiff making a demand for payment of a stipulated penalty shall simultaneously send a copy of the demand to the other Plaintiff.

136. Either Plaintiff may in the unreviewable exercise of its discretion, reduce or waive stipulated penalties otherwise due it under this Consent Decree.

137. Stipulated penalties shall continue to accrue as provided in Paragraph 156 during any Dispute Resolution, but need not be paid until the following:

a. If the dispute is resolved by agreement of the Parties or by a decision of either Plaintiff that is not appealed to the Court, Defendant shall pay accrued penalties determined to be owed, together with interest, to the United States or PADEP within thirty (30) Days of the effective date of the agreement or the receipt of EPA's or PADEP's decision or order.

b. If the dispute is appealed to the Court and the United States or the PADEP prevails in whole or in part, Defendant shall pay all accrued penalties determined by the Court to be owed, together with interest, within sixty (60) Days of receiving the Court's decision or order, except as provided in subparagraph c., below.

c. If any Party appeals the District Court's decision, Defendant shall pay all accrued penalties determined to be owed, together with interest, within fifteen (15) Days of receiving the final appellate court decision.

138. Obligations Prior to the Effective Date. Upon the Effective Date, the stipulated penalty provisions of this Decree shall be retroactively enforceable with regard to the obligations stated in Paragraphs 42.d., 43, 44, 46.a., and 61-64 of this Consent Decree, which are required to be performed prior to the Effective Date, provided that stipulated penalties that may have accrued prior to the Effective Date may not be collected unless and until this Consent Decree is entered by the Court.

139. Defendant shall pay stipulated penalties owed to the United States in the manner set forth and with the confirmation notices required by Paragraphs 12-14, of this Consent Decree, except that the transmittal letter shall state

that the payment is for stipulated penalties and shall state for which violation(s) the penalties are being paid. Defendant shall pay stipulated penalties owed to the State by corporate check or similar instrument made payable to the Commonwealth of Pennsylvania Department of Environmental Protection, and addressed to: 2 Public Square, Wilkes-Barre, PA 18701-1915.

140. If Defendant fails to pay stipulated penalties according to the terms of this Consent Decree, Defendant shall be liable for interest on such penalties, as provided for in 28 U.S.C. § 1961, accruing as of the date payment became due. Nothing in this Paragraph shall be construed to limit the United States or the State from seeking any remedy otherwise provided by law for Defendant's failure to pay any stipulated penalties.

141. The payment of penalties and interest, if any, shall not alter in any way Defendant's obligation to complete the performance of the requirements of this Consent Decree.

142. Non-Exclusivity of Remedy. Stipulated penalties are not the United States' exclusive remedy for violations of this Consent Decree. Subject to the provisions of Section XIV (Effect of Settlement/Reservation of Rights), the United States expressly reserves the right to seek any other relief it deems appropriate for Defendant's violation of this Consent Decree or applicable

law, including but not limited to an action against Defendant for statutory penalties, additional injunctive relief, mitigation or offset measures, and/or contempt. However, the amount of any statutory penalty assessed for a violation of this Consent Decree shall be reduced by an amount equal to the amount of any stipulated penalty assessed and paid pursuant to this Consent Decree.

XI. FORCE MAJEURE

143. "Force majeure," for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of Defendant, of any entity controlled by Defendant, or of Defendant's contractors that delays or prevents the performance of any obligation under this Consent Decree despite Defendant's best efforts to fulfill the obligation. The requirement that Defendant exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any potential force majeure event (a) as it is occurring and (b) following the potential force majeure, such that the delay and any adverse effects of the delay are minimized. "Force Majeure" does not include Defendant's financial inability to perform any obligation under this Consent Decree.

144. If any event occurs or has occurred that may delay the performance of any

obligation under this Consent Decree, whether or not caused by a force majeure event, Defendant shall provide notice orally and by electronic mail to EPA and PADEP, to the persons listed in Notices, Section XVI, within seven (7) days of when Defendant first knew that the event might cause a delay. Within fifteen (15) Days thereafter, Defendant shall provide in writing to EPA and PADEP an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Defendant's rationale for attributing such delay to a force majeure event if it intends to assert such a claim; and a statement as to whether, in the opinion of Defendant, such event may cause or contribute to an endangerment to public health, welfare or the environment. Defendant shall include with any notice all available documentation supporting the claim that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude Defendant from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay caused by such failure. Defendant shall be deemed to know of any circumstance of which Defendant, any entity controlled by Defendant, or Defendant's contractors, knew or should have

known.

145. If EPA, after a reasonable opportunity for review and comment by PADEP, agrees that the delay or anticipated delay is attributable to a force majeure event, the time for performance of the obligations under this Consent Decree that are affected by the force majeure event will be extended by EPA, after a reasonable opportunity for review and comment by PADEP, for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation. EPA will notify Defendant in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

146. If EPA, after a reasonable opportunity for review and comment by PADEP, does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, EPA will notify Defendant in writing of EPA's decision.

147. If Defendant elects to invoke the dispute resolution procedures set forth in Section XII (Dispute Resolution) in regard to a force majeure event, it shall do so no later than thirty (30) Days after receipt of EPA's notice. In any such proceeding, Defendant shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or

will be caused by a force majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Defendant complied with the requirements of Paragraphs 143 and 144 of this Consent Decree. If Defendant carries this burden, the delay at issue shall be deemed not to be a violation by Defendant of the affected obligation of this Consent Decree identified to EPA and the Court.

XII. DISPUTE RESOLUTION

148. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. Defendant's failure to seek resolution of a dispute under this Section shall preclude Defendant from raising any such issue as a defense to an action by the United States or PADEP to enforce any obligation of Defendant arising under this Consent Decree.

149. Informal Dispute Resolution. Any dispute subject to Dispute Resolution under this Consent Decree shall first be the subject of informal negotiations among the disputing parties. The dispute shall be considered to have arisen when Defendant sends the United States, EPA, and PADEP a written Notice of Dispute. Such Notice of Dispute shall state clearly the matter in dispute.

The period of informal negotiations shall not exceed sixty (60) Days from the date the dispute arises, unless that period is modified by written agreement. If the Parties cannot resolve a dispute by informal negotiations, then the position advanced by the United States shall be considered binding unless, within sixty (60) Days after the conclusion of the informal negotiation period, Defendant invokes formal dispute resolution procedures as set forth below.

150. Formal Dispute Resolution. Defendant shall invoke formal dispute resolution procedures, within the time period provided in the preceding Paragraph, by serving on the United States, EPA, and PADEP a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting Defendant's position and any supporting documentation relied upon by Defendant.

151. The United States shall serve its Statement of Position within forty-five (45) Days of receipt of Defendant's Statement of Position. The United States' Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting that position and any supporting documentation relied upon by the United States. The United States' Statement of Position shall be binding on Defendant, unless Defendant files

a motion for judicial review of the dispute in accordance with the following Paragraph.

152. Defendant may seek judicial review of the dispute by filing with the Court and serving on the United States, EPA, and PADEP, in accordance with Section XVI (Notices), a motion requesting judicial resolution of the dispute. The motion must be filed within forty-five (45) Days of receipt of the United States' Statement of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of Defendant's position on the matter in dispute, including any supporting factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute must be resolved for orderly implementation of the Consent Decree.

153. The United States shall respond to Defendant's motion within the time period allowed by the Local Rules of this Court. Defendant may file a reply memorandum, to the extent Permitted by the Local Rules.

154. Standard of Review. Disputes Concerning Matters Accorded Record Review. Except as otherwise provided in this Consent Decree, in any dispute brought under Paragraph 150 pertaining to the adequacy or appropriateness of plans, procedures to implement plans, schedules or any other items requiring approval by EPA under this Consent Decree; the

adequacy of the performance of work undertaken pursuant to this Consent Decree; and all other disputes that are accorded review on the administrative record under applicable principles of administrative law, Defendant shall have the burden of demonstrating, based on the administrative record, that the position of the United States is arbitrary and capricious or otherwise not in accordance with law.

155. Standard of Review. Other Disputes. Except as otherwise provided in this Consent Decree, in any other dispute brought under Paragraph 150, Defendant shall bear the burden of demonstrating that its position complies with this Consent Decree.

156. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of Defendant under this Consent Decree, unless and until final resolution of the dispute so provides. Stipulated penalties with respect to the disputed matter shall continue to accrue from the first Day of noncompliance, but payment shall be stayed pending resolution of the dispute as provided in Paragraph 137. If Defendant does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section X (Stipulated Penalties).

XIII. ACCESS, INFORMATION COLLECTION AND RETENTION

157. The United States, PADEP, and their representatives, including attorneys,

contractors, and consultants, shall have the right of entry into the Palmerton, at all reasonable times, upon presentation of credentials, to:

a. monitor the progress of activities required under this Consent Decree;

b. verify any data or information submitted to the United States or PADEP in accordance with the terms of this Consent Decree;

c. obtain samples and, upon request, splits of any samples taken by Defendant or its representatives, contractors, or consultants related to Defendant's obligations under this Consent Decree;

d. obtain documentary evidence, including photographs and similar data relevant to the terms of this Consent Decree; and

e. assess Defendant's compliance with this Consent Decree.

Nothing herein limits or affects the government authorities expressed in Paragraph.

158. Upon request, Defendant shall provide EPA and PADEP or their authorized representatives with splits of any samples taken by Defendant. Upon request, EPA and PADEP shall provide Defendant splits of any samples taken by EPA or PADEP.

159. Until three (3) years after the termination of this Consent Decree, Defendant shall retain, and shall instruct its contractors and agents to preserve, all non-identical copies of all documents, records, or other information (including documents, records, or other information in electronic form) in its or its contractors' or agents' possession or control, or that come into its or its contractors' or agents' possession or control, and that relate in any manner to

Defendant's performance of its obligations under this Consent Decree. This information-retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures. This retention requirement does not apply to voicemail or text messages, so long as those forms of communication are not used for substantive discussions concerning compliance with this Consent Decree. At any time during this information-retention period, upon request by the United States or PADEP, Defendant shall provide copies of any documents, records, or other information required to be maintained under this Paragraph.

160. Defendant may assert that certain documents, records, or other information is privileged under the attorney-client privilege or any other privilege recognized by federal law. If Defendant asserts such a privilege, it shall provide the following: (a) the title of the document, record, or information; (b) the date of the document, record, or information; (c) the name and title of each author of the document, record, or information; (d) the name and title of each addressee and recipient; (e) a description of the subject of the document, record, or information; and (f) the privilege asserted by Defendant. However, no documents, records, or other information created or generated pursuant to the requirements of this Consent Decree shall be withheld on grounds of privilege.

161. Except for emissions data, Defendant may also assert that information required to be provided under this Section is protected as Confidential Business Information ("CBI") under 40 C.F.R. Part 2. As to any information that Defendant seeks to protect as CBI, Defendant shall follow the procedures set forth in 40 C.F.R. Part 2 and 35 P.S. § 4013.2.

162. This Consent Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by the United States or PADEP pursuant to applicable federal or state laws, regulations, or Permits, nor does it limit or affect any duty or obligation of Defendant to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or Permits.

XIV. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

163. This Consent Decree resolves the civil claims of the United States and PADEP for the violations alleged in the Complaint through the Date of Lodging of this Consent Decree.

164. The United States and PADEP reserve all legal and equitable remedies available to enforce the provisions of this Consent Decree. This Consent Decree shall not be construed to limit the rights of the United States or PADEP to obtain penalties or injunctive relief under the CAA, CWA, SDWA, RCRA, and EPCRA or implementing regulations, or under other

federal or state laws, regulations, or Permit conditions. The United States and PADEP further reserve all legal and equitable remedies to address any imminent and substantial endangerment to the public health or welfare or the environment arising at, or posed by, the Palmerton Facility, whether related to the violations addressed in this Consent Decree or otherwise.

165. In any subsequent administrative or judicial proceeding initiated by the United States or PADEP for injunctive relief, civil penalties, other appropriate relief relating to the Palmerton Facility, Defendant shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States or PADEP in the subsequent proceeding were or should have been brought in the instant case, except with respect to claims that have been specifically resolved pursuant to Paragraph 163.

166. This Consent Decree is not a Permit, or a modification of any Permit, under any federal, State, or local laws or regulations. Defendant is responsible for achieving and maintaining compliance with all applicable federal, State, and local laws, regulations, and Permits; and Defendant's compliance with this Consent Decree shall be no defense to any action commenced pursuant to

any such laws, regulations, or Permits, except as set forth herein. The United States and PADEP do not, by their consent to the entry of this Consent Decree, warrant or aver in any manner that Defendant's compliance with any aspect of this Consent Decree will result in compliance with provisions of the Clean Air Act, 42 U.S.C. §§ 7401 *et seq.,* RCRA, 42 U.S.C. §§ 6928 *et seq*., or the Clean Water Act, 33 U.S.C. §§ 1251 *et seq*., or with any other provisions of federal, State, or local laws, regulations, or Permits.

167. This Consent Decree does not limit or affect the rights of Defendant or of the United States or PADEP against any third parties, not party to this Consent Decree, nor does it limit the rights of third parties, not party to this Consent Decree, against Defendant, except as otherwise provided by law.

168. Nothing in this Consent Decree is intended to limit or disqualify Defendant, on the grounds that information was not discovered and supplied voluntarily, from seeking to apply EPA's and/or PADEP's audit policy to any violations or non-compliance that Defendant discovers during the course of any enhanced monitoring that Defendant is required to undertake pursuant to this Consent Decree.

169. This Consent Decree shall not be construed to create rights in, or grant any cause of action to, any third party not party to this Consent Decree.

XV. COSTS

170. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States and PADEP shall be entitled to collect the costs (including attorneys' fees) incurred in any action necessary to collect any portion of the civil penalty or any stipulated penalties due but not paid by Defendant.

XVI. NOTICES

171. Unless otherwise specified in this Consent Decree, whenever notifications, submissions, or communications are required by this Consent Decree, they shall be made in writing and addressed as follows:

As to the United States by mail:

EES Case Management Unit
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Washington, D.C. 20044-7611
Re: DJ # 90-11-3-11529/1

As to EPA by mail:

Joyce Howell
Senior Assistant Regional Counsel
Office of Regional Counsel (3RC40)
U.S. Environmental Protection Agency - Region III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029
Howell.joyce@epa.gov
215-814-2644

As to EPA by email:

Serfass.rebecca@epa.gov;
Isin.amelie@epa.gov; **and**
Trakis.lisa@epa.gov

As to PADEP by email:

aschweitze@pa.gov;
dearitter@pa.gov; **and**
pmusinski@pa.gov

As to PADEP by mail:

Sean L. Robbins
Assistant Counsel
PADEP Northeast Regional Office
2 Public Square
Wilkes-Barre, PA 18701-1915

Andrew Schweitzer
Environmental Group Manager
Air Quality Program
PADEP Northeast Regional Office
2 Public Square
Wilkes-Barre, PA 18701-1915

As to AZR by email:

tbasilone@azr.com
gwhitaker@azr.com
mfoster@azr.com
jfalko@azr.com
kvaccaro@mankogold.com
rbender@mankogold.com

As to AZR by mail:

Vice President – Environmental Affairs
American Zinc Recycling Corp.
3000 GSK Drive
Suite 201
Moon Township, PA 15108

Office of General Counsel
American Zinc Recycling Corp.
3000 GSK Drive, Suite 201
Moon Township, PA 15108

Any Party may, by written notice to the other Parties, change its designated notice recipient or notice address provided above.

172. Notices submitted pursuant to this Section shall be deemed submitted upon mailing, unless otherwise provided in this Consent Decree or by mutual agreement of the Parties in writing.

XVII. EFFECTIVE DATE

173. The Effective Date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court or a motion to enter the Consent Decree is granted, whichever occurs first, as recorded on the Court's docket;

provided, however, that Defendant hereby agrees that it shall be bound to perform duties scheduled to occur prior to the Effective Date. In the event the United States withdraws or withholds consent to this Consent Decree before entry, or the Court declines to enter the Consent Decree, then the preceding requirement to perform duties scheduled to occur before the Effective Date shall terminate.

XVIII. RETENTION OF JURISDICTION

174. The Court shall retain jurisdiction over this case until termination of this Consent Decree, for the purpose of resolving disputes arising under this Decree or entering orders modifying this Decree, pursuant to Sections XII and XX, or effectuating or enforcing compliance with the terms of this Decree.

XIX. MODIFICATION

175. The terms of this Consent Decree, including any attached appendices, may be modified only by a subsequent written agreement signed by all the Parties. Where the modification constitutes a material change to this Decree, it shall be effective only upon approval by the Court.

176. Non-material modifications to this Consent Decree, including mutually agreed modifications to the content and frequency of reports required to be submitted to EPA and PADEP pursuant to this Consent Decree, shall be in

writing and signed by duly authorized representatives of AZR and the United States, EPA, and PADEP, but need not be filed with the Court to be effective.

177. Any disputes concerning modification of this Consent Decree shall be resolved pursuant to Section XII (Dispute Resolution), provided, however, that, instead of the burden of proof provided by Paragraph 154 or 155, the Party seeking the modification bears the burden of demonstrating that it is entitled to the requested modification in accordance with Federal Rule of Civil Procedure 60(b).

XX. TERMINATION

178. Defendant may seek termination of this Consent Decree by serving upon the United States and PADEP a Request for Termination. The Request for Termination must state that Defendant has satisfied the requirements of the Consent Decree as specified in this Paragraph and shall include necessary supporting documentation. In order to seek termination of the Consent Decree pursuant to this Paragraph, Defendant shall have completed the following requirements:

a. Initial compliance with the requirements specified in Section V (Compliance Requirements), except that Defendant shall complete two (2) Emission Tests for each

source required to conduct at least two (2) Emissions Tests under this Consent Decree;

b. Payment of the civil penalty and any accrued stipulated penalties as required by this Consent Decree; and

c. Maintaining satisfactory compliance with this Consent Decree for period of five (5) years following the Effective Date.

179. Following receipt by the United States and PADEP of Defendant's Request for Termination, the Parties shall confer informally concerning the Request and any disagreement that the Parties may have as to whether Defendant has satisfactorily complied with the requirements for termination of this Consent Decree. If the United States, after consultation with PADEP, agrees that the Decree may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Decree.

180. If the United States, after consultation with PADEP, does not agree that the Decree may be terminated, Defendant may invoke Dispute Resolution under Section XII. However, Defendant shall not seek Dispute Resolution of any dispute regarding termination until 60 Days after service of its Request for Termination.

XXI. PUBLIC PARTICIPATION

181. This Consent Decree shall be lodged with the Court for a period of not less than thirty (30) Days for public notice and comment in accordance with 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate. Defendant consents to entry of this Consent Decree without further notice and agrees not to withdraw from or oppose entry of this Consent Decree by the Court or to challenge any provision of the Decree, unless the United States has notified Defendant in writing that it no longer supports entry of the Decree.

XXII. SIGNATORIES/SERVICE

182. Each undersigned representative of Defendant, and the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice, and the Regional Director of the Northeast Regional Office of the Pennsylvania Department of Environmental Protection, certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

183. This Consent Decree may be signed in counterparts, and its validity shall not

be challenged on that basis. Defendant agrees to accept service of process by mail with respect to all matters arising under or relating to this Consent Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons. Defendant need not file an answer to the complaint in this action unless or until the Court expressly declines to enter this Consent Decree.

XXIII. INTEGRATION

184. This Consent Decree constitutes the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Decree and supersedes all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein, including the 1995 Consent Decree. The Parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Consent Decree.

XXIV. FINAL JUDGMENT

185. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to the United States, PADEP, and Defendant. The Court finds that there is no just reason for delay and therefore enters this judgment as a final judgment under Fed. R.

Civ. P. 54 and 58.

XXV. 26 U.S.C. SECTION 162(f)(2)(a)(ii) IDENTIFICATION

186. For purposes of the identification requirement of Section 162(f)(2)(A)(ii) of the Internal Revenue Code, 26 U.S.C. § 162(f)(2)(A)(ii), performance of Section II (Applicability), Paragraphs 4-9; Section V (Compliance Requirements) Paragraphs 18-109; Section IX (Reporting Requirements), Paragraphs 124-131; and Section XIII (Access, Information Collection and Retention), Paragraphs 157-162, is restitution or required to come into compliance with law.

XXVI. APPENDICES

187. The following Appendices are attached to and part of this Consent Decree:

Appendix A is the Palmerton Facility Fugitive Dust Control Plan
Appendix B is the site map of the Palmerton Facility
Appendix C is the SWPPP
Appendix D is a diagram depicting the aisle space requirements
Appendix E is the list of RCRA closure areas and components

Dated and entered this __ Day of _____, 2020

_____
UNITED STATES DISTRICT JUDGE
MIDDLE DISTRICT OF PENNSYLVANIA

Consent Decree Signature Page - *United States of America and PADEP v. American Zinc Recycling Corp.*,

FOR THE UNITED STATES OF AMERICA:

Date: January 19, 2021

Bruce Gelber

BRUCE S. GELBER
Deputy Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice

Date: 1/19/21

John Sither

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Acting United States Attorney
Middle District of Pennsylvania

Date: 1/8/21

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Consent Decree Signature Page - *United States of America and PADEP v. American Zinc Recycling Corp.*,

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY:

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Consent Decree Signature Page - *United States of America and PADEP v. American Zinc Recycling Corp.*,

12-22-20
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Office of Enforcement and Compliance Assurance
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Consent Decree Signature Page – *United States of America and PADEP v. American Zinc Recycling Corp.,*

FOR PLAINTIFF COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION:

1/14/2021
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Consent Decree Signature Page - *United States of America and PADEP v. American Zinc Recycling Corp.*,

FOR DEFENDANT AMERICAN ZINC RECYCLING CORP.:

12/16/2020
Date

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FUGITIVE DUST PLAN

AMERICAN ZINC RECYCLING CORPORATION
PALMERTON FACILITY

TABLE OF CONTENTS

I. INTRODUCTION, SCOPE, AND PLAN COMPONENTS

American Zinc Recycling Corp.'s ("AZR") Fugitive Dust Control Plan ("Plan") is designed to address and minimize fugitive dust emissions/particulate matter from operations at AZR's facility located in Palmerton, Pennsylvania (the "Facility") as follows.

1. Scope of Coverage of Plan

The Plan addresses the following seven general categories of potential sources of fugitive emissions. Further descriptions of the specific potential sources within each general category are provided in **Sections III and IV** of this Plan.

- **a. Roadways** (coded yellow on map at **Appendix B-1**);
- **b. Outdoor Material Stockpiles** (coded blue on map at **Appendix B-2**);
  - i. Carbon Source Stockpiles
  - ii. IRM Stockpiles
- **c. Material Loading/Unloading Operations** (coded red on map at **Appendix B-3**);
  - **i. Pneumatic Delivery ("PD") systems:**
    1. PD Truck Unloading of EAF
    2. PD Railcar Unloading of EAF
    3. PD Railcar Unloading of CZO
  - **ii. Non-Pneumatic Delivery systems:**
    1. Railcar Unloading of EAF
    2. Dust Catcher Unloading of CZO and Lead Chloride
    3. Loading/Unloading of IRM and Calcine at quench pit and storage areas
    4. Loading/Unloading of IRM at IRM processing areas
- **d. Railcar Vacuum Unloading** (coded pink on map at **Appendix B-4**);

e. **IRM Processing** (coded orange on map at **Appendix B-5**);

   i. Screener

   ii. Conveyors

f. **Material Conveying Equipment** (coded cyan on map at **Appendix B-6**);

   i. EAF Material Conveying Equipment

   ii. CZO Material Conveying Equipment

   iii. Kiln Feed/Discharge Material Conveying Equipment

   iv. Lead Chloride Material Conveying Equipment

   v. Product Collector Material Conveying Equipment

   vi. Fugitive Baghouse Material Conveying Equipment

g. **Product Collector and Baghouse Areas** (coded green on map at **Appendix B-7**).

   i. Product Collectors for Kilns 1, 2, 5, and 6

   ii. Fugitive Baghouses F1 and F2

   iii. Kiln Seals

The Plan also provides for the monitoring of potential fugitive emissions at the Facility boundary through daily visible fugitive emissions monitoring inspections as described in **Section V.4** of this Plan.

2. Identification of Control Measures and Responsible Personnel in Table 1

The Plan characterizes the sources/potential sources of fugitive dust/particulate matter emissions at the Facility. For each source, the following information is identified in **Table 1**:

- Source area
- Responsible personnel
- Relevant inspection/control activity
- Inspection/control activity schedule/frequency

- Records to be maintained (type/format)

3. Inspection Logs

AZR has implemented the use of inspection logs to address each of the specific potential fugitive dust sources identified above. To facilitate efficient inspections and minimize overlap among inspection procedures, the relevant fugitive dust sources were combined into categorical source areas based on inspection practices reflective of the nature of the source and the proximity of the source to the general working area of the designated inspector. Inspection logs corresponding to each source area are contained in **Appendix A**. The logs are used by Facility personnel to document each of the inspections detailed in **Table 1** of the Plan, including by creating records of the inspection date, the inspector's identity, and the results of the inspector's observations intended to identify any conditions/potential conditions that could result in fugitive dust emissions. The logs also contain instructions for the notifications to be made in response to certain inspection observations, as appropriate, as well as spaces to list any corrective actions taken. The inspection logs listed in **Table 1** and contained within **Appendix A** cover the following specific potential sources, which are also illustrated on the maps in **Appendices B-1 through B-7** and further described in **Sections III and IV** of the Plan:

- Daily Street Sweeping Log (roadways)
- Daily Industrial Sweeping Log (roadways and other processing areas)
- Daily Water Truck Log (roadways and outdoor material stockpiles)
- Daily Carbon Stockpile Inspection Log
- Daily IRM Processing Area Inspection Log
- Daily EAF Unloading Area Inspection Log
- Daily CZO Unloading Area Inspection Log

- Daily IRM/Calcine Loading/Unloading Area Inspection Log
- Daily Dust Catcher Unloading Area Inspection Log
- Daily (when in use) Vac-Rack Area Inspection Log
- Weekly EAF Material Conveying Equipment Inspection Log
- Weekly CZO Material Conveying Equipment Inspection Log
- Weekly Kiln Feed/Discharge Material Conveying Equipment Inspection Log
- Weekly Lead Chloride Material Conveying Equipment Inspection Log
- Daily Product Collector Inspection Log
- Daily Fugitive Baghouse Weekly Inspection Log
- Daily Facility Perimeter Fugitive Emission Evaluation Log

4. Facility Map Identifying/Color Coding Fugitive Sources

As noted above, maps of the Facility showing each of the specific potential sources of fugitive emissions covered by the Plan, along with corresponding assigned color identifiers for each general source category, are included as **Appendices B-1 through B-7**.

5. List of Air Permit Source IDs Corresponding to Fugitive Sources

A list of the applicable Source IDs from the Facility's Title V Permit No. 13-00001 and the corresponding/cross-referenced categories of fugitive sources covered by the Plan is contained in **Appendix C**.

6. Facility Maps Depicting Sweeper and Water Truck Routes

The specific routes followed by the sweepers and water trucks are depicted on the maps contained in **Appendices E-1 and E-2**.

II. FACILITY SETTING

The Facility is located at 900 Delaware Avenue, Palmerton Borough, Carbon County, Pennsylvania, along the Aquashicola Creek. The east-west axis of the Facility property is approximately 6,000 feet long with the north-south axis about 1,200 feet wide. The Facility is bounded to the north, west, and east by the Aquashicola Creek. Further to the south and east is Blue Mountain and the Appalachian Trail. Although the Facility is located within the Borough of Palmerton, the northern, eastern, and southern Facility boundaries are adjacent to Lower Towamensing Township.

The Facility and the Borough of Palmerton lie in a valley between Blue Mountain and Stoney Ridge. Terrain elevations at the Facility range from about 400 feet above sea level at the Creek and increase to 420 feet above sea level at the southern Facility boundary. The highest elevation at Blue Mountain is 1,508 feet and is located about 4,000 feet south of the Facility. North of the Facility, terrain elevations in Palmerton increase from 400 feet above sea level at the Aquashicola Creek to 450 feet above sea level within about 2,000 feet of the Facility. Further to the north of Palmerton, terrain elevations continue to increase to over 600 feet above sea level within about 4,000 feet of the Facility.

According to NOAA climate data, Palmerton, PA receives an average of 41 inches of rainfall annually. Average monthly rainfall ranges from about 2 to 5 inches with the wettest period being May through August. Monthly snowfall from December through March averages 3 to 6 inches. Air temperatures are temperate with average highs in the summers (June through September) above 77 degrees Fahrenheit and average lows in the winter (December through March) ranging from 19 to 29 degrees.

III. SOURCE DESCRIPTIONS

Section III of the Plan describes the specific potential sources of fugitive emissions within each of the general categories that were identified for inclusion in this Plan and the basis for such identification. For ease of implementation of the Plan by Facility personnel and others, example photographs corresponding to each category of potential fugitive emission sources are embedded within **Section III**, labeled as Figures 1-11. The next section of the Plan, **Section IV**, details the fugitive dust control measures corresponding to each of the source areas listed below.

1. **Roadways**
   (Title V Source ID 244: ROADWAY USAGE – FUGITIVE DUSTS)

Truck traffic on the roadways throughout the Facility has the potential to generate fugitive dust emissions. The amount of roadway dust rendered airborne depends primarily on the weight and speed of vehicles traveling on the roadways, the combined distance traveled by vehicles over the roadways, and the silt and moisture content of material covering the roadways.

Figure 1 - Example Roadway Area

2. Outdoor Material Stockpiles
(Title V Source ID 242: MAT.STOCKPILES WIND EROSION – FUG.DUSTS)

All stockpiled material at the Facility is contained inside total enclosures or 3-sided enclosures with roofs, with the exception of the carbon source stockpiles located along the south side of Building 608 and the IRM stockpiles located in the IRM Processing Area (consisting of the IRM stored at the IRM Pad and the Stoney Ridge Area, as applicable). The amount of fugitive emissions from these outdoor stockpiles depends primarily upon the particle size and moisture content of the material on the stockpile surface, the wind velocity across the stockpile surface, and the frequency that the stockpiles are disturbed by adding or removing material. Generally, and as explained in Chapter 13 of AP-42, wind above a material-specific threshold velocity is required to create a fugitive emission from a material stockpile, and subsequent emissions will not occur unless the surface is disturbed, or a higher wind velocity occurs. This is due to the formation of an upper layer of larger particles on the stockpile surface. This is particularly true of the IRM stockpiles, because after the material is wetted through the quenching process, IRM forms a thick crust over the material pile that effectively prevents fugitive emissions unless the pile is subject to substantial manipulation by equipment or other material movement device.

Figure 2 - Example Outdoor Material Stockpile (Carbon)

3. Material Loading/Unloading Operations

Materials are loaded and unloaded from trucks and railcars throughout the Facility. These operations are accomplished via closed, pneumatic delivery systems where practicable, and otherwise by normal (non-pneumatic) dumping and lifting from dump trucks and bucket loaders. Fugitive emissions from pneumatic delivery systems are generally not possible unless there is an anomalous malfunction or equipment condition within the delivery systems, or if excess material has accumulated in the delivery lines before they are disconnected. Pneumatic delivery systems that are routinely connected and disconnected are located in the EAF PD Truck Unloading Area, the EAF Railcar Unloading Area, and in the CZO PD Railcar Unloading Area.

Dumping and lifting operations are performed inside buildings with ventilation controls, with the following exceptions: the Carbon Source Stockpiles and the IRM Processing Area (both

of which are discussed above in **Section III.2** for "Material Stockpiles"), loading/unloading of IRM/Calcine at the quench pit and storage locations, and CZO/Lead Chloride unloading from the kiln dust catchers. The amount of fugitive emissions from these operations depends primarily on the amount of material dropped, the height of the drop, the particle size of the material, and the moisture content of the material.

Figure 3 – Example Pneumatic Unloading (EAF PD Unloading Area)

Figure 4 - Example Non-Pneumatic Loading (IRM Storage Dome)

4. Railcar Vacuum Unloading

Before any maintenance can be performed that requires entry into the railcars, the railcars must be unloaded. The facility may also need to unload rail cars outside the existing PD Unloading areas for other non-routine reasons. In these situations, the rail cars are unloaded using a "Vac-Rack" located in the rail yard at the west end of the Facility. The Vac-Rack is a series of suspended vacuum hoses used to extract material from the railcar and the vacuum itself is provided by a Guzzler vacuum truck which is mobilized to the rail yard as needed. Fugitive emissions can occur if excess material has accumulated in the vacuum hoses before they are disconnected, if the equipment is not operated or maintained properly, or if the area is not regularly cleaned.

Figure 5 - Railcar Vacuum Unloading (Vac-Rack)

5. IRM Processing

IRM produced from the Waelzing process may be transferred to the IRM processing area for screening and size classification prior to sale. IRM processing does not include any size reduction by mechanical crushing, grinding, or milling. The IRM processing area contains two mobile screening plants, each capable of processing up to 186 tons per day, as well as two stacking conveyors which have the potential to generate fugitive emissions as part of their regular operation. The amount of fugitive emissions generated depends primarily on the amount of IRM processed, the particle size of the IRM, and the moisture content of the IRM.

Figure 6 - Processing Equipment and Stockpile at IRM Processing Area

6. Material Conveying Equipment

Material Conveying Equipment is located throughout the Facility and generally consists of conveyors, pneumatic piping, elevators, drags, screw feeders, chutes, hoppers, and rotary airlocks. Fugitive emissions may occur at uncontrolled drop points for dry and fine materials, but such emissions are minimized using shrouds and other material containment devices. Pneumatic conveyances are controlled at the vent location and generally do not contribute to fugitive dust emissions under normal use.

Figure 7 - Example EAF MCE

Figure 8 - Example CZO MCE

Figure 9 - Kiln Feed MCE

Figure 10 - Lead Chloride MCE

7. Product Collector and Baghouse Areas

Product collectors are used to separate condensed product from the kiln exhaust gases, and each of the four kilns is equipped with its own product collector. The area located between each kiln and its associated dust catcher is known as the "kiln seal" or the "kiln feed seal." The F1 and F2 baghouses are used to control emissions from the kiln firing hoods. The product collector areas and F1 and F2 baghouse areas contain material conveying equipment that must be regularly maintained to prevent fugitive emissions from such areas. Additionally, the kiln seals are subject to natural wear and tear over time, primarily due to the expansion and contraction of the kiln through the temperature variation inherent in the process operation. As a result, the kiln seal can lose some effectiveness over time, which in turn can permit brief periods of emissions through a narrow space between the kiln seal and the dust catcher. Therefore, these areas are considered as potential fugitive emission sources subject to this Plan.

Figure 11 - Example Product Collector Area (Kiln 1)

IV. DUST CONTROL PLAN

The Plan provides a description of the current controls, near term improvements in controls, and long-term activities to continuously evaluate and improve fugitive emissions controls for each of the identified sources.

1. Roadways

The Facility employs a street sweeper with brushes and high vacuum and a dedicated employee to clear internal paved roadways of dust. The sweeper truck is a Tymco Model DST-6 Dustless Sweeper with a 99-horsepower engine, Powercore air filter, and a pressurized washdown system. On dry days when the Facility is receiving or shipping trucked material, the

street sweeper is used to clean paved roadways at the Facility by following one of two defined routes depending on the outside temperature: (i) when the temperature is above freezing and the water truck can be used, the street sweeper follows the route shown in the map at **Appendix E-1**; and (ii) when the temperature is below freezing and the water truck cannot be used, the street sweeper follows the route shown in the map at **Appendix E-2**. The sweeper truck must make repeated passes of these routes to ensure that all roadway lanes have been adequately swept.

Additionally, the street sweeper may be diverted to other areas on an as-needed basis to address incidental material accumulations on paved surfaces. Once the collection chamber is full, the street sweeper is emptied within the 608 building and then rinsed in the existing truck wash station. The street sweeper is operated and maintained according to the manufacturer's specifications, and the performance of roadway sweeping is inspected daily on dry days when the Facility is receiving or shipping trucked material as documented using the relevant log sheet attached in **Appendix A**. Any operational or maintenance issues encountered with the sweeper are noted on the log sheet and entered into the Facility's maintenance work order tracking system. Routine, scheduled maintenance recommended by the manufacturer of the sweeper is performed by a third-party contractor, and any non-routine maintenance that may be necessary is scheduled and implemented using the Facility's work order tracking system for subsequent implementation by either Facility personnel or an outside contractor as needed. Any significant material accumulations encountered by the street sweeper are also noted on the log sheet and recurring issues are evaluated by the Environmental Manager for resolution.

As explained above, the Facility employs a contractor-owned water truck for dust suppression on dry days when the temperature is above freezing when the Facility is receiving or shipping trucked material. On these days, the water truck follows a defined circuit to cover the

paved roadways as shown in the map at **Appendix E-1**, and must make repeated passes of these routes to ensure that all roadway lanes have been adequately wetted. Like the street sweeper, the water truck may also be diverted to material stockpiles or other areas as necessary for additional dust suppression on an as-needed basis, as discussed further below in **Section IV.2** for "Material Stockpiles." The water truck is operated and maintained according to the manufacturer's specifications, and the performance of roadway dust suppression is inspected daily on dry days above freezing when the Facility is receiving or shipping trucked material, and documented using the relevant log sheet attached in **Appendix A**. Any operational or maintenance issues encountered with the water truck are noted on the log sheet by the contractor and reported to the contractor's supervisor for appropriate corrective action.

Finally, the Facility employs two AZR-owned smaller industrial sweepers: an Advance Exterra Ride-on Sweeper and a Bortek Powerboss Armadillo 10XV Diesel Ride-on Vacuum Sweeper. The Advance Exterra is equipped with a 5-stage dust control system which includes water fogging systems at the side brooms, a vacuumized main broom chamber, separation chambers, a nanofiber filter element, and automated shake-cleaning of the filter element. The Bortek Armadillo 10XV is equipped with a 4-stage dust control system, which includes a suction system and collection tray at the main broom, a pre-filter stage, a synthetic panel filter stage, and automated shake-cleaning of the filter element. Both industrial sweepers are used for material management/cleanup in indoor and difficult-to-access areas of the Facility as shown on the maps at **Appendices E-1 and E-2**. The industrial sweepers may also be directed to other areas as needed, based on the results of the inspections in those areas. The industrial sweepers are operated and maintained according to the manufacturer's specifications, and the performance of roadway and other sweeping is inspected daily on dry days when the Facility is receiving or

shipping trucked material, and documented using the relevant log sheet attached in **Appendix A**. Any operational or maintenance issues encountered with the industrial sweepers are noted on the log sheet and entered in to the Facility's maintenance work order tracking system.

AZR maintains an annual budget for routine roadway maintenance. In-plant roads and paved surfaces are maintained to preserve paving continuity, flatness, and surface wear resistance. Reasonably-sized holes/roadway issues are repaired by the Facility on a regular basis (excluding winter months when blacktop patch material is not effective due to the cold temperatures) using appropriate flexible paving patch material. These repairs are identified and tracked using work orders entered into the Facility's enterprise asset management system. Larger/more significant roadway repair or modification projects are scheduled and budgeted on an as-needed basis, with the timing for project implementation dependent on weather conditions and the related ability of asphalt manufacturers to remain operational.

Finally, all vehicle traffic within the main processing areas of the Facility is limited to 10 mph, which minimizes the potential for fugitive emission generation from roadways. Speed limit signs are posted in the relevant areas to alert truck drivers to this requirement, and the Facility secured and employs multiple new radar-equipped signs that monitor vehicle speeds and display the speed measured to drivers as they pass. Facility Supervisors enforce the speed limit by stopping vehicles that are driving in excess of the applicable speed limit and issuing a verbal notice to first-offender drivers to reduce speed as appropriate. Supervisors then use their discretion to report drivers with repeat or egregious speed violations to the plant manager, who may take disciplinary actions against the driver, up to and including suspending the driver's access to the Facility either temporarily or permanently as they deem appropriate.

2. Outdoor Material Stockpiles

All stockpiled material at the Facility is contained inside total enclosures or 3-sided enclosures with roofs, with the exception of the carbon source stockpiles located along the southwest side of Building 608 and the IRM stockpiles located in the IRM processing area. Loading and unloading operations at these stockpile areas are discussed in **Section IV.3** below. Dust emission potential from the material stockpiles themselves is minimized using various means, including but not limited to, instructing Facility personnel to avoid any unnecessary contact with stockpiled material, limiting the stockpile disturbed area, reducing tumbling of materials being moved, minimizing material disturbance when removing material from the stockpile, including where feasible, removing material from the bottom of the stockpile, and limiting the vertical drop height of materials. Outdoor material stockpile areas are inspected daily to ensure adherence to the above-referenced practices, use of proper pile maintenance and good housekeeping, and to determine if visible fugitive emissions are occurring. If visible fugitive emissions are observed, the area supervisor is notified promptly and may direct the water truck to provide dust suppression. If material track-out is observed on paved roadways outside of the stockpile area, the area supervisor is likewise notified promptly, and the street sweeper may be directed to the area to clean up the material. The area supervisor is also notified of any unauthorized vehicles or personnel present in the stockpile area and will pursue deterrent actions against those individuals if needed. The inspections are documented using the logs attached in **Appendix A**.

3. Material Loading/Unloading Operations

Fugitive dust emissions from pneumatic loading/unloading operations are mitigated by ensuring proper operation of the pneumatic delivery system and adherence to proper unloading

procedures. The Facility maintains a Standard Operating Procedure for the EAF PD Truck Unloading operation (RAS-005, attached as **Appendix D**) that details the fugitive dust preventative measures, incident tracking, and response protocols required to be used in this area. In the EAF PD Railcar Unloading and CZO PD Railcar Unloading Areas, operators must control the transfer rate and blower pressure to prevent material plugging within the pneumatic line that could lead to an over-pressurization and resulting release of dust. If a blockage occurs in the delivery line, operators and truck drivers must safely depressurize into the receiving silo using the available blow-off lines. Operators and truck drivers must also ensure that pneumatic lines are cleared to the greatest possible extent, by continuing to blow the lines clear for several minutes prior to disconnection, and that hose nozzle fittings are tightly secured to prevent any release of fugitive emissions during the unloading process. If any excess material contained in the line is released following disconnection, the shift foreman will be notified, and the street sweeper and/or vacuum truck will be called in to clean up the release within 24 hours. Additional incident response and reporting as described in **Section V** may be necessary depending on the nature of the release. Upon entry into the Facility, PD Truck drivers will be provided with an informational card communicating their responsibilities during material loading/unloading operations to ensure clear messaging to drivers regarding applicable standards.

Fugitive dust emissions from non-pneumatic loading/unloading operations are mitigated by limiting the vertical drop height and unnecessary handling/working of materials to the extent practicable. If visible fugitive emissions are observed from non-pneumatic loading/unloading operations, the shift foreman is notified promptly and may direct the water truck to provide dust suppression or the sweeper trucks to clean up any accumulated material or track-out. However, in applying water for dust suppression of carbon source loading/unlading operations, care is

taken to ensure the water truck nozzle is positioned to avoid adding excessive moisture to the material, which could, in turn, result in operational/process issues.

IRM and Calcine material is saturated with water through the quenching process that occurs as the material is discharged from the kilns. Kiln operators implement a routinized procedure four times per each operating shift (approximately every two hours) to check for sufficient water level in each quench pit, as well as to ensure the proper functioning of the solenoid valves which control water flow/addition to the quench pits. These checks are recorded, along with any required adjustments made to increase the water level. Issues with any solenoid valves are reported to the supervisor to be addressed as appropriate, including further investigation and/or corrective action as appropriate. Proper operation of the quench pits, as confirmed through the relevant evaluative procedures, ensures that IRM and Calcine materials are adequately wetted, thus resulting in a relatively low potential for fugitive dust generation.

All dump trucks (except those used to move IRM between the bunkers, dome, and processing area, recognizing that the moist and dense nature of the IRM obviates the need for coverage during such movement), roll-offs, totes, and other mobile containers must be kept covered and closed at all times unless material is actively being loaded or unloaded, and all tote enclosures must be free of accumulated material. The dust catcher area also must be maintained in a clean condition. In particular, to prevent material from escaping as material is transported from the dust catchers to Building 608 (to be returned to the material stream for further processing in the kilns), the Facility first transfers material collected in the dust catchers to tote bins. Once the bins are full, the dust catcher material conveyance system (referred to as the dust catcher “drag”) is shut down, and the bins are loaded directly onto a flatbed truck outfitted with a construction rack, top covering, and side doors, for transport to Building 608.

On high-wind days, enhanced supervision/observation of outdoor loading/unloading operations is provided. If fugitive emissions occur due to high wind speed, and if all other previously-described mitigation measures have been applied, the Environmental Manager may determine to halt loading/unloading operations as a means of preventing fugitive emissions from such operations from leaving the Facility boundary.

Both the pneumatic and normal material loading/unloading areas are inspected daily to ensure that visible fugitive emissions are not occurring. The inspections are documented using the logs attached in **Appendix A**. The shift foreman is notified promptly of any visible fugitive emissions observed during the inspection, and may direct the water truck or sweepers, as applicable, to address the source of the emissions. Certain loading/unloading areas, as depicted in **Appendix E**, are addressed by the water truck/sweepers on a routine basis and documented using the relevant log attached in **Appendix A**.

4. Railcar Vacuum Unloading

Rail car vacuum unloading is performed as-needed and occurs at the Vac-Rack located in the rail yard. Like the other vacuum trucks at the Facility, the vacuum truck used at the Vac-Rack is a Guzzler Model CL with a 5,250-CFM positive displacement vacuum pump, an 18 cubic yard payload capacity, and a four-stage filtration system. The Guzzler truck also features an enlarged connection between the cyclone and the baghouse, minimizing interruption of the air as it transitions between these two key system components. Fugitive dust emissions are mitigated by operating and maintaining the vacuum truck according to the manufacturer's specifications, and by maintaining the Vac-Rack system and area in a clean condition. Before the start of any Vac-Rack operation, the system (including hoses and other piping) is inspected for leaks and other visual deficiencies, and any broken/damaged hoses are cut into 4-foot sections and placed

inside a designated hazardous waste roll-off container. Operators closely monitor the operation of the vacuum system to ensure it is functioning properly and no visible emissions are observed. Operators will also ensure that all material has been cleared from the hoses prior to shutting down the vacuum. If any incidental release of material occurs, operators will clean the area using the dedicated vacuum truck before leaving the area. Each day the Vac- Rack system is used, an inspection is performed at the beginning and end of the operation and documented using the log attached in **Appendix A**. Any operational or maintenance issues encountered with the equipment are noted on the inspection log sheet by the vacuum truck contractor and reported to the contractor's supervisor, who will identify the nature of and timing for corrective action to ensure an appropriate response. Operators will not resume operation of the vacuum until proper function has been restored. Any material releases occurring during Vac- Rack operation are reported to the appropriate supervisor. Recurring issues are evaluated by the Environmental Manager for resolution.

5. IRM Processing

Fugitive dust emissions from the IRM Processing area are minimal due to the relatively high moisture content and larger particle size of the IRM, as well as the fact that IRM processing is limited to screening and size classification without any mechanical grinding or crushing. As explained above, when combined with moisture, a thick cap quickly forms over any IRM material pile, thereby preventing any fugitive emissions absent some substantial disturbance to the material. However, vertical drop height and unnecessary working of the material shall nevertheless be minimized to the extent practicable to further reduce the potential for fugitive dust emissions.

The processing equipment must also be properly operated and maintained, and the IRM processing area shall be kept in a clean condition. The IRM processing area contains two mobile screening plants each capable of processing up to 186 tons per day, as well as two stacking conveyors, all of which have the potential to generate fugitive emissions as part of their regular operation. The IRM processing area is inspected daily for the presence of visible fugitive emissions and documented using the logs attached in **Appendix A**. The area supervisor is promptly notified of any visible fugitive emissions observed during the inspection.

6. Material Conveying Equipment

Conveyors and other material conveying equipment are inspected weekly and are maintained according to the Facility's preventative maintenance program. Such material conveying equipment includes belt conveyors, screw conveyors, material elevators, pneumatic conveyances, drop chutes, and boots. The equipment and the surrounding areas are inspected for any instances of material accumulation beneath the equipment or other equipment issues having a potential to generate fugitive emissions, including holes or gaps in the equipment enclosure. Preventative maintenance schedules are developed for Facility equipment and integrated into the Facility's electronic enterprise asset management system, which delivers real-time management of project scheduling and other project specifications to Facility personnel regarding preventative maintenance tasks, required non-routine work orders, and project prioritization recommendations.

To the extent that such inspections identify any material build-up or other equipment issues having a potential to generate fugitive emissions, then Facility personnel clean the relevant conveyor belts and/or other appropriate material conveying equipment, as applicable. Best management practices are used to prevent the generation and spillage of dust during material

conveying/transfer activities, and include enclosures, hoods, covers, and other control devices, as appropriate. Operators working at the Facility will identify any malfunctioning material conveying equipment (or other performance- or operational-based issues such as holes or leaks in enclosures) and submit work orders to correct the issue, and these work orders will be fulfilled consistent with the schedule generated by the enterprise asset management. If the malfunctioning material conveying equipment presents an ongoing potential to generate fugitive emissions (e.g. the material conveyance is located outdoors), then the associated work order will be marked as an environmental concern with high priority for resolution. All work orders and the completion of the required maintenance activity are tracked in the Facility's enterprise asset management system. Material conveying equipment in the main processing areas throughout the Facility (with the exception of equipment in Building 608 which is operated inside the building which is maintained under negative pressure) is inspected weekly as part of the area-specific inspections described in the relevant inspection log included in **Appendix A**.

7. **Product Collector and Baghouse Areas**

The areas in which the Product Collectors and Baghouses F1 and F2 are located are inspected daily to ensure that the material conveying and containment equipment (including associated tote enclosures) within these areas is functioning properly, and to ensure the areas are kept clean. Such areas are also swept and/or vacuumed as needed based on the results of these inspections. Additionally, the condition of the kiln seals is visually evaluated for natural wear and tear as part of the daily inspection of the Dust Catcher areas. These inspections are documented using the logs attached in **Appendix A**. More extensive inspections of the kiln seals are performed when greater access to the equipment is available during kiln outages. As discussed above, any operational or maintenance issues encountered with the equipment are

noted on the inspection log sheet and entered into the Facility's maintenance work order tracking system.

V. IMPLEMENTATION

This Plan identifies actions, responsibilities, and schedules commensurate with the Facility's commitment to minimize fugitive dust and particulate emissions through Plan implementation. AZR may update, amend, or revise this plan from time to time, as appropriate, but shall do so no less frequently than annually to the extent any operational, equipment, or other facility changes from the previous year warrant updating the Plan.

1. Facility-Wide General Housekeeping

Due to the inherent nature of the operations performed at the Facility and the amount of material processed at the Facility, all processing areas within the Facility could be considered potential sources of fugitive emissions if material is allowed to accumulate and become airborne, though material accumulation can be reasonably minimized through proper operation and maintenance of equipment and proper cleanup after non-routine tasks. Specific housekeeping practices that pertain to the above-described sources are described in the sections of this Plan specific to those sources.

The processing areas described above in this **Section IV** and covered by the inspection logs attached in **Appendix A** are inspected regularly and any accumulated material is cleaned up no less frequently than daily. In each case, the source of the accumulated material shall be determined, and corrective actions shall be implemented to prevent further accumulation. If any material accumulation is noted on three consecutive inspection logs, then personnel must notify the Environmental Manager to implement appropriate corrective actions. As part of the relevant inspections, Facility personnel also observe equipment for any possible gaps, holes, leaks from

joints or development of holes in bins, conveyances, belts, or other material conveying equipment as applicable.

To address any areas of accumulated material based on the results of the area-specific inspections, the Facility employs vacuum trucks, a mobile Hi-Vac system, a street sweeper, two smaller industrial sweepers, and a team of contractors and employees that can be deployed as needed. The specifications for the street sweeper and industrial sweepers are detailed in the above **Section IV.1** for "Roadways." The vacuum trucks are Guzzler Model CLs with 5,250-CFM positive displacement vacuum pumps, 18 cubic yard payload capacities, and four-stage filtration systems, and feature an enlarged connection between the cyclone and the baghouse, minimizing interruption of the air as it transitions between these two key system components. The mobile Hi-Vac system is a Model 875DP Hi-Vac with a 75-horsepower powerhead, 2.0 cubic yard-material collection hopper, support frame, and airlift to allow the hopper to be removed for emptying. A cast aluminum flap on the vacuum pump discharge silencer acts as a check value to prevent the vacuum pump from reversing direction and pressurizing the system.

All lead chloride product at the Facility is packaged and stored in Flexible Intermediate Bulk Container ("FIBC") bags in specifically authorized storage locations: the main warehouse, the packing building, and the "Lithopone" storage building. In the absence of any active material processing activities in such areas, the product storage areas are considered to have a low/no potential to generate fugitive emissions, and therefore documented inspections of these areas are not necessary under normal conditions. Nevertheless, in an abundance of caution, in the unlikely event that any FIBCs are punctured or otherwise damaged by forklifts or other means, thereby creating the potential for fugitive dust emissions from the relevant storage areas, such

conditions are properly reported as environmental incidents and the Facility's housekeeping team is mobilized to clean up the material.

2. Responsibilities

The successful implementation of this Plan is the responsibility of personnel ranging from equipment operators to senior management. The specific responsibilities of all levels of Facility personnel are detailed in **Table 1**, along with the relevant activities and required recordkeeping. As shown in **Table 1**, activities have been assigned to operators, supervisors, maintenance, contractors, and environmental management personnel. In particular, the Environmental Manager is generally responsible for confirming that the tasks are being routinely satisfied and that any identified deviations are appropriately addressed. The specific notification/reporting procedures for each source area are described on the relevant inspection log sheet. Moreover, applicable portions of the Plan are incorporated into personnel training programs and materials as appropriate, and ongoing internal dialogue, personnel roles, and responsibilities are routinely refined and reinforced to ensure correct and ongoing implementation of the Plan.

3. Personnel Training for Plan Implementation

Training is provided to each responsible employee in the use of the logs and required responsibilities for identifying, documenting, notifying, and completing required actions to address identified issues. Employees are trained to identify fugitive dust and operational/maintenance issues with the equipment in their respective areas of responsibility through descriptions of possible real-world example conditions while in the field. Employees are trained on proper material management and spill response procedures according to applicable regulatory and permit-based requirements as well as internal company procedures. The sweeper

operators and housekeeping team are trained on the proper operation of the sweeping and vacuuming equipment, including relative to manufacturer-provided instructions. The employee(s) designated as performing the perimeter fugitive emissions evaluations, as well as the Environmental Manager and the Shift Foremen, are all trained to properly observe fugitive emissions according to EPA Method 22 and are additionally certified to evaluate visual opacity according to EPA Method 9. The relevant training is provided for each responsible employee upon hiring or job change, and at least annually following the initial training. The need for additional training for specific employees or groups of employees will be evaluated by the Environmental Manager as part of the annual Plan review or more frequently as necessary. Training records indicating the employee name, type, and date of training shall be kept for five years. Training materials shall be reviewed as part of the annual Plan review to ensure they are up-to-date.

4. Visible Fugitive Emissions Monitoring

To ensure compliance with permit conditions, the Facility conducts daily inspections of the Facility to determine the presence of visible fugitive emissions occurring from buildings and/or passing beyond the boundaries of the Facility using the relevant inspection log in **Appendix A**. The inspection is targeted towards areas with a potential for fugitive dust emissions as described in this Plan, but may conservatively identify authorized, non-fugitive emissions from other sources not covered by this Plan.

The daily inspection is performed by an employee trained to properly observe fugitive emissions according to EPA Method 22 and certified to evaluate visual opacity according to EPA Method 9. If the employee observes visible fugitive emissions during the daily inspection, the inspector will perform a Method 22 evaluation and record the findings on a separate log sheet for

such Method 22 observations, and promptly notify the relevant area supervisor for corrective action implementation.

The log book for the fugitive emission inspections will record all occurrences of visible fugitive emissions that deviate from applicable regulatory and/or permit-based standards, as well as all corrective actions taken to abate each recorded deviation and/or prevent future occurrences. The standards for Incident Reporting addressed in **Section V.6**, below, apply to evaluations of visible fugitive emissions. In addition, on a semi-annual basis, the Facility compiles a report of all logged instances of deviations from the visible fugitive emission permit limitations that occurred (if any) and the actions taken in response to them and submits such report to the Pennsylvania Department of Environmental Protection.

5. Recordkeeping

Table 1 identifies records maintained in accordance with this Plan. Annually, Facility environmental personnel will prepare a written summary of those actions identified in **Table 1** that have been taken during the prior year. Discontinuation or enhancement of Plan elements will be identified and discussed, with the Plan being updated as appropriate during the annual Plan review. All records generated pursuant to this plan, including inspection log sheets, work orders, personnel training records, environmental incident forms/reports, visible fugitive emission reports, and annual Plan reviews, shall be maintained at the facility for no less than 5 years and made available to regulatory agencies upon request.

6. Incident Reporting

Each log sheet identifies the initial response protocols to be followed by the inspector in the event that fugitive emissions are observed in the corresponding area of the Facility. All fugitive observations shall be reported promptly to the foreman or supervisor of the relevant

process, who shall then promptly contact the Facility's environmental manager. The supervisor and environmental manager will review the observation as made by the inspector and may then activate additional response and external notification protocols as directed by the Facility's Integrated Contingency Plan. The environmental manager will complete an environmental incident form for any observations that represent a potential deviation from applicable regulatory and/or permit-based standards, and the form will document the nature of the incident, the material(s) involved, any necessary external notifications and the basis for such notifications, incident investigation steps, and corrective/preventative actions. To the extent that the environmental manager determines that any observations constitute a deviation from applicable regulatory and/or permit-based standards, the environmental manager will also ensure that any required reporting of such condition is satisfied in a manner consistent with applicable reporting requirements in the Facility's Title V air operating permit. In addition, on a semi-annual basis, the Facility compiles a report of all logged instances of deviations from the visible fugitive emission permit limitations that occurred (if any) and the actions taken in response to them and submits such report to the Pennsylvania Department of Environmental Protection.

Table 1

Source	Personnel	Activity	Schedule	Records
Roadways	Truck Wash Operator	Ensure that all trucks leaving Building 608 have been cleaned and covered.	Ongoing	
	Street Sweeper Operator	Remove accumulated material from all designated Plant roadways.	Daily on dry days when receiving/shipping trucks	Street Sweeping Log
	Water Truck Operator	Provide dust suppression on all designated Plant roadways.	Daily on dry days above freezing when receiving/shipping trucks	Water Truck Log
	Water Truck Supervisor	Ensure water truck is operated and maintained according to manufacturer specifications	Ongoing	
	Industrial Sweeper Operator	Remove accumulated material from all designated Plant roadways.	Daily on dry days when receiving/shipping trucks	Industrial Sweeping Log
		Remove accumulated material from other areas	As needed	
	Maintenance	Ensure sweepers are operated and maintained according to manufacturer specifications	As needed and according to PM schedule	Work Orders
	Operations	Monitor vehicle traffic and enforce the 10 mph speed limit.	Ongoing	
	Environmental Manager	Evaluate performance of truckwash/street sweeping programs and adjust Plan as necessary.	Annually	Annual Plan Review
Outdoor Material Stockpiles	Operations	Daily inspection (carbon source stockpile)	Daily	Carbon Stockpile Inspection Log
		Daily inspection (IRM stockpiles)	Daily	IRM Processing Area Inspection Log
	Water Truck Operator	Provide dust suppression for outdoor material stockpiles	As needed	Water Truck Log, Carbon Stockpile Log, IRM Processing Area Log
All Material Stockpiles	Operations	Assess condition of piles and correct as necessary.	Ongoing	
		Limit stockpile disturbed area by removing material from bottom of pile.	Ongoing	
		Limit tumbling and drop height to the extent practicable.	Ongoing	
	Street Sweeper Operator	Remove any stockpile track-out on paved roadways	As needed	Street Sweeping Log
	Environmental Manager	Evaluate performance of stockpile programs and adjust Plan as necessary.	Annually	Annual Plan Review
Pneumatic Material Loading/Unloading	Operations	Limit transfer rate to prevent material plugging.	Ongoing	
		Ensure that pneumatic lines are blown clear after delivery and before disconnection.	Ongoing	
		Promptly notify shift foreman of any release of excess material.	Ongoing	EAF Unloading inspection Log, CZO Unloading Inspection Log
		Daily inspection of PD Truck Unloading of EAF	Daily when used	
		Daily inspection of PD Railcar unloading of CZO	Daily	
	Street Sweeper Operator	Remove any material accumulation resulting from a release	As needed	Street Sweeping Log
	Vacuum Truck Operators	Remove any material accumulation resulting from a release	As needed	
Non-Pneumatic Material Loading/Unloading	Operations	Limit tumbling and drop height to the extent practicable.	Ongoing	
		Ensure drump trucks are covered before leaving the loading/unloading area.	Ongoing	
		Daily inspection of railcar unloading of EAF	Daily when used	EAF Unloading inspection Log
		Daily inspection of dust catcher unloading	Daily	Dust Catcher Unloading Inspection Log
		Daily inspection of loading/unloading of IRM/Calcine	Daily	IRM/Calcine Loading/Unloading Inspection Log
		Daily inspection of loading/unloading at IRM Processing Area	Daily	IRM Processing Area Inspection Log
	Water Truck Operator	Provide dust suppression for outdoor material loading/unloading	As needed	Water Truck Log, IRM Processing Area Log
All Material Loading/Unloading	Environmental Manager	Evaluate performance of material loading/unloading programs and adjust Plan as necessary.	Annually	Annual Plan Review
	Maintenance	Ensure loading/unloading equipment is operated and maintained according to manufacturer specifications	As needed and according to PM schedule	Work Orders
Railcar Vacuum Unloading	Vacuum Truck Operators	Prior to cleaning, inspect the vacuum truck and Vac-Rack for leaks or other deficiencies and promptly report any deficiencies to truck contractor for maintenance.	Daily when used	Inspection Log
		Ensure vacuum lines are blown clear prior to disconnection.	Daily when used	Inspection Log
		Clean up any incidental material releases and ensure the area is left in a clean condition.	Daily when used	Inspection Log
		Ensure vacuum truck is operated and maintained according to manufacturer specifications.	As needed	
	Environmental Manager	Evaluate performance of railcar cleaning/maintenance programs and adjust Plan as necessary.	Annually	Annual Plan Review
IRM Processing	Operations	Limit tumbling and drop height to the extent practicable.	Ongoing	
	Operations	Ensure the processing equipment is operating properly, promptly report any deficiencies to Maintenance.	Ongoing	IRM Processing Area Inspection Log
	Operations	Daily inspection of the IRM Processing Area	Daily	IRM Processing Area Inspection Log
	Maintenance	Ensure processing equipment is operated and maintained according to manufacturer specifications.	As needed	Work Orders
	Environmental Manager	Evaluate performance of IRM Processing programs and adjust Plan as necessary.	Annually	Annual Plan Review
Material Conveying Equipment (All Process Areas)	Operations	Inspect conveyors and MCE for leaks or other malfunctions and promptly report any deficiencies to Maintenance. Promptly report any material accumulations to the housekeeping team.	Weekly	EAF MCE Inspection Log, CZO MCE Inspection Log, Kiln Feed/Discharge MCE Inspection Log, Lead Chloride MCE Inspection Log Product Collector Inspection Log Fugitive Baghouse Inspection Log
Material Conveying Equipment (All Areas)	Operations	Clean up any outdoor material accumulations within 24 hours	As needed	
	Maintenance	Ensure processing equipment is operated and maintained according to manufacturer specifications.	As needed and according to PM schedule	Work Orders
	Environmental Manager	Evaluate performance of conveyor/MCE programs and adjust Plan as necessary.	Annually	Annual Plan Review
Product Collectors and Fugitive Baghouse Areas	Operations	Inspect all MCE for leaks or other malfunctions and promptly report any deficiencies to Maintenance. Promptly report any material accumulations to the housekeeping team.	Daily	Product Collector Inspection Log, Fugitive Baghouse Inspection Log
	Maintenance	Ensure equipment is operated and maintained according to manufacturer specifications.	As needed and according to PM schedule	Work Orders
	Environmental Manager	Evaluate performance of product collector/fugitive baghouse programs and adjust Plan as necessary.	Annually	Annual Plan Review
Facility-Wide General Housekeeping	Operations	Clean up any outdoor material accumulations within 24 hours	As needed	
		Clean up any other material accumulations as soon as practiable	As needed	
	Environmental Manager	Evaluate performance of housekeeping programs and adjust Plan as necessary.	Annually	Annual Plan Review
Facility-Wide Fugitive Emissions Monitoring	Method 22 Trained Observer	Determine the presence of fugitive emissions detectable beyond the boundaries of the Facility.	Daily	Inspection Log
	Environmental Manager	Compiles and submits to PADEP a report of all logged instances of deviations from the visible fugitive emission permit limitations.	Semi-annually	Report
	Environmental Manager	Prepare a written summary of actions taken under the Plan during the previous year. Review Plan performance and discontinue/enhance Plan elements as necessary.	Annually	Written Summary
Facility-Wide Training Requirements	Environmental Manager	Ensures that all employees working in areas or with materials covered by this Plan have received appropriate and up-to-date training.	Annually	Annual Plan Review
	Foremen, Supervisors	Train employees on proper equipment, inspection, and fugitive dust response procedures	Upon hire, job change, and annually thereafter	Training Records
	Environmental Manager & Foremen	Maintain Method 9 certification and Method 22 training	As needed	Certification

APPENDIX A

DAILY STREET SWEEPING LOG

To be completed by Street Sweeper Operator daily on dry days when receiving/shipping trucks

	Date:	Sweeper Start Hours	Sweeper Stop Hours	If the sweeper was not run this day, explain why:	Were there any significant material accumulations that required special attention? If yes, describe:	Initial:
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						

Return the completed inspection log to the Environmental Manager

DAILY INDUSTRIAL SWEEPING LOG

To be completed by Industrial Sweeper Operator daily on dry days when receiving/shipping trucks

	Date:	Sweeper ID	Sweeper Start Hours	Sweeper Stop Hours	If the sweeper was not run this day, explain why:	Were there any significant material accumulations that required special attention? If yes, describe:	Initial:
Monday							
Tuesday							
Wednesday							
Thursday							
Friday							
Saturday							
Sunday							

Return the completed inspection log to the Environmental Manager

DAILY WATER TRUCK LOG

To be completed by Water Truck Operator daily on dry days above freezing when shipping/receiving trucks

	Date:	Number of Hours Operated	If the water truck was not run this day, explain why:	Were there any significant fugitive emissions that required special attention? If yes, describe:	Initial:
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					
Saturday					
Sunday					

Return the completed inspection log to the Environmental Manager

DAILY CARBON STOCKPILE INSPECTION LOG

To be completed by Operations

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date:							
Time:							
Are there any visible fugitive emissions from the storage piles? (Y/N) If yes, promptly notify supervisor and direct the water truck to wet the material.							
Is there material track-out from the stockpile area? (Y/N) If yes, promptly notify supervisor and direct the street sweeper to clean up the material.							
Initial:							

Return the completed inspection log to the Environmental Manager

DAILY IRM PROCESSING AREA INSPECTION LOG (covering the IRM Pad and the Stoney Ridge area, as applicable)
To be completed by Operations on days that IRM Processing is occurring*

	Date:	Time:	Are there any visible fugitive emissions from the storage piles, screener, conveyor drop, loading/unloading operations, or from the processing equipment? If yes, promptly notify supervisor, direct the water truck to provide dust suppression, and describe the source of emissions.	Is there material track-out from the processing area? (Y/N) If yes, promptly notify supervisor and direct the street sweeper to clean up the material.	Initial:
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					
Saturday*					
Sunday*					

*Inspection is only required on Saturdays and Sundays if IRM Processing is occurring

Return the completed inspection log to the Environmental Manager

DAILY EAF UNLOADING INSPECTION LOG

To be completed by Operations on days trucks or railcars are being unloaded*

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday*	Sunday*
Date:							
Time:							
PD Unloading Area:							
Are any visible fugitive emissions occurring from the PD unloading area or equipment? (Y/N) If yes, promptly notify shift foreman.							
Railcar Unloading Area:							
Are any visible fugitive emissions occurring from the Railcar Unloading area? (Y/N) If yes, promptly notify shift foreman.							
Did transfer system pressure exceed 15 psi at any time during PD Railcar unloading? (Y/N) If yes, promptly notify shift foreman.							
Initial:							

*Inspection is only required on Saturdays and Sundays if EAF Unloading is occurring

Return the completed inspection log to the Environmental Manager

DAILY CZO UNLOADING INSPECTION LOG
To be completed daily by Operations

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date:							
Time:							
Are any visible fugitive emissions occurring from the CZO unloading area or equipment? (Y/N) If yes, promptly notify shift foreman.							
Did transfer system pressure exceed 15 psi at any time during unloading? (Y/N) If yes, promptly notify shift foreman.							
Initial:							

Return the completed inspection log to the Environmental Manager

DAILY IRM/CALCINE LOADING/UNLOADING AREA INSPECTION LOG

To be completed daily by Operations

	Monday	Tuesday	Wednesday	Thursday	Friday
Date:					
Time:					
Quench Pit Area:					
Are any visible fugitive emissions occurring from the area or equipment? (Y/N) If yes, promptly notify supervisor.					
IRM Storage Dome:					
Are any visible fugitive emissions occurring from the area? (Y/N) If yes, promptly notify supervisor.					
Calcine Storage Building:					
Are any visible fugitive emissions occurring from the area? (Y/N) If yes, promptly notify supervisor.					
Initial:					

Return the completed inspection log to the Environmental Manager

DAILY DUST CATCHER UNLOADING INSPECTION LOG
To be completed daily by Operations

	Date:	Time:	Are there any visible fugitive emissions from dust catcher unloading areas? If yes, promptly notify supervisor and describe the source of emissions.	Is the Dust Catcher Area maintained in a clean condition, free of material accumulation? (Y/N) If no, promptly notify supervisor.	Are all Kiln Seals functioning properly? (Y/N) If no, promptly report the issue to maintenance and record work order number below.	Initial:
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						

Return the completed inspection log to the Environmental Manager

VAC-RACK INSPECTION LOG

To be completed daily by vacuum truck contractors when use of the vac-rack is required

Before starting the Vacuum System:	
Date/Time of "Before" Inspection:	
Are the vacuum hoses and other piping free of leaks? (Y/N) If no, list corrective actions implemented:	
Start the vacuum system and monitor for proper operation and visible emissions. Were any visible emissions or other malfunctions observed? (Y/N)	
If yes, shut down the system and report the malfunction/other issue to supervision. Do not operate the system until proper function has been restored.	
Initial/Date:	
After shutting down the vacuum system:	
Date/Time of "After" Inspection:	
Have the vacuum hoses and other piping been cleared of material to the extent practicable? (Y/N) If not, restart the vacuum system and clear the lines.	
Are broken hoses cut into 4-foot sections and placed inside a designated hazardous waste roll-off? (Y/N) If no, list corrective actions implemented:	
Did any fugitive emissions occur during the Vac-Rack operation? (Y/N) If yes, notify supervisor and list corrective action implemented:	
Is the Vac-Rack area maintained in a clean condition? (Y/N) If no, list corrective actions implemented:	
Initial:	

Return the completed inspection log to the Environmental Manager

WEEKLY EAF MATERIAL CONVEYING EQUIPMENT INSPECTION LOG
To be completed weekly by Operations

Date/Time:		
Inspect all Material Conveying Equipment (belt conveyors, screw conveyors, elevators, pneumatic conveyances, hoppers, drop chutes, boots, etc.) from the EAF Unloading Areas to Building 608 and note any instances of material accumulation, holes or leaks in enclosures, or other equipment issues having a potential to generate fugitive emissions in the spaces below. There is no need to identify equipment that is functioning properly.		
Equipment ID	Location of Issue	Work Order Number
Initial:		

Return the completed inspection log to the Environmental Manager

WEEKLY CZO MATERIAL CONVEYING EQUIPMENT INSPECTION LOG
To be completed weekly by Operations

Date/Time:		
Inspect all Material Conveying Equipment (belt conveyors, screw conveyors, elevators, pneumatic conveyances, hoppers, drop chutes, boots, etc.) in the G&H Building and note any instances of material accumulation, holes or leaks in enclosures, or other equipment issues having a potential to generate fugitive emissions in the spaces below. There is no need to identify equipment that is functioning properly.		
Equipment ID	Location of Issue	Work Order Number
Initial:		

Return the completed inspection log to the Environmental Manager

WEEKLY KILN FEED/DISCHARGE MATERIAL HANDLING CONVEYING INSPECTION LOG
To be completed weekly by Operations

Date/Time:		
Inspect all Material Conveying Equipment (belt conveyors, screw conveyors, elevators, pneumatic conveyances, hoppers, drop chutes, boots, etc.) from Building 608 to, and including, the Kiln Feed Tubes, as well as the equipment in the quench pit area, and note any instances of material accumulation, holes or leaks in enclosures, or other equipment issues having a potential to generate fugitive emissions in the spaces below. There is no need to identify equipment that is functioning properly.		
Equipment ID	Location of Issue	Work Order Number
Initial:		

Return the completed inspection log to the Environmental Manager

WEEKLY LEAD CHLORIDE MATERIAL CONVEYING EQUIPMENT INSPECTION LOG
To be completed weekly by Operations

Date/Time:		
Inspect all Material Conveying Equipment (belt conveyors, screw conveyors, elevators, pneumatic conveyances, hoppers, drop chutes, boots, etc.) conveying lead chloride to, and including, the Packing Building and note any instances of material accumulation, holes or leaks in enclosures, or other equipment issues having a potential to generate fugitive emissions in the spaces below. There is no need to identify equipment that is functioning properly.		
Equipment ID	Location of Issue	Work Order Number
Initial:		

Return the completed inspection log to the Environmental Manager

DAILY PRODUCT COLLECTOR INSPECTION LOG
To be completed daily by Operations

Product Collector ID:	#1	#2	#5	#6
Date/Time:				
Does the material conveying equipment associated with the product collector show evidence of leaks, equipment malfunctions, or other containment failures? (Y/N) If yes, list corrective actions implemented including Work Order numbers:				
Is the Product Collector Area maintained in a clean condition? (Y/N) If no, promptly notify supervisor and direct the sweeper or vac-truck to clean the area.				
Initial:				

Return the completed inspection log to the Environmental Manager

DAILY FUGITIVE BAGHOUSE INSPECTION LOG
To be completed daily by Operations

Fugitive Baghouse ID:	F1	F2
Date/Time:		
Does the material conveying equipment associated with the baghouse show evidence of leaks, equipment malfunctions, or other containment failures? (Y/N) If yes, list corrective actions implemented including Work Order numbers:		
Is the Product Collector Area maintained in a clean condition? (Y/N) If no, promptly notify supervisor and direct the sweeper or vac-truck to clean the area.		
Initial:		

Return the completed inspection log to the Environmental Manager

DAILY PERIMETER FUGITIVE EMISSION EVALUATION
To be completed daily by Operations

Date of Evaluation:			
Walk the facility perimeter and note any visible fugitive emissions occurring within the facility, and any visible fugitive or malodorous emissions passing beyond the facility boundary. Report any observed fugitive emissions to the Environmental Manager promptly.			
Location	Observation	Time Observed	Did emissions pass beyond the facility boundary? (Y/N)
Initial:			

Return the completed inspection log to the Environmental Manager.

APPENDIX B

APPENDIX C

Appendix C - Source Applicability Matrix

Source ID	Source Name	Relevant Section(s) of FDP	Relevant FDP Inspection Sheet
C04, C05, C07, C16	Product Collector Areas	6: Material Conveying Equipment	Weekly Product Collector Inspection
		7: Product Collector and Baghouse Areas	Weekly Product Collector Inspection
213	PD Railcar Unloading	3: Material Loading/Unloading Operations	Daily CZO Unloading Inspection
		1: Roadways	Daily Street Sweeping Log
			Daily Industrial Sweeping Log
214	CZO Unloading System	6: Material Conveying Equipment	Weekly CZO MCE Inspection
230	Lead Concentrate Pneumatic Conveyor	6: Material Conveying Equipment	Weekly Lead Chloride MCE Inspection
235	EAF Dust Railcar Unloading	3: Material Loading/Unloading Operations	Daily EAF Unloading Inspection
237	Lead Concentrate Sack Packer	6: Material Conveying Equipment	Weekly Lead Chloride MCE Inspection
238, 239	Fugitive Baghouse Areas	6: Material Conveying Equipment	Weekly Fugitive Baghouse Inspection
		7: Product Collector and Baghouse Areas	Weekly Fugitive Baghouse Inspection
242	Material Stockpiles	2: Material Stockpiles	Daily Carbon Stockpile Inspection
			Daily IRM Processing Pad Inspection
244	Roadways	1: Roadways	Daily Street Sweeping Log
			Daily Water Truck Log
			Daily Industrial Sweeping Log
245	Kiln Feed Conveying System	6: Material Conveying Equipment	Weekly Kiln Feed MCE Inspection
246	Pneumatic Materials Handling	3: Material Loading/Unloading Operations	Daily EAF Unloading Inspection
		1: Roadways	Daily Industrial Sweeping Log
248	Calcine Kiln Feed Receiving Bin	3: Material Loading/Unloading Operations	Daily CZO Unloading Inspection
		6: Material Conveying Equipment	Weekly CZO MCE Inspection

APPENDIX D

AZR AMERICAN ZINC RECYCLING
Delivering a Sustainable Future

EAFD PD Truck Unloading Procedure			No.:	RAS-005	
		Owner:	Environmental Manager		
Approval:		Effective Date:	03/05/20	Page:	1 of 3
		Revision No.:			

PURPOSE: This procedure defines the EAFD PD truck unloading process at the American Zinc Recycling Corp. - Palmerton Plant.

SCOPE: This procedure applies to all EAFD PD trucks unloading at American Zinc Recycling Corp ("AZR") - Palmerton Plant.

REFERENCES: Hazardous Waste Permit (PAD002395887) QA/QC Plan
RAS-002: Truck and Rail Sampling Procedure
RAS-005-F01: PD Truck Unloading Incident Tracking Form

DEFINITIONS:

EAFD – electric arc furnace dust

PD Truck – pressure discharge truck

Unloading Station – The Unloading Station is a three-walled, roofed structure with five silos that can be used to offload EAFD. Each silo has two unloading stations where trucks can offload. Each unloading station has two connections. Each driver supplies a 4-inch camlock fitted hose that is used to pneumatically convey EAFD from their truck to AZR's silo. The driver also supplies a 2-inch camlock fitted hose that is used if the truck needs to depressurize their truck into the silo.

PROCEDURE:

1. Pre-Check Conducted Prior to Unloading Operations
   1.1. Each unloading station is visually checked for blocked lines by the Trestle Unloading Attendant.
   1.2. If a line is blocked, a cone is placed in front of the unloading station and a red light above the unloading station is lit to signal that a truck cannot offload to that silo.
   1.3. Once the line is unblocked using a vacuum truck, the cone is removed by the Trestle Unloading Attendant and the light above the unloading station is switched to green, returning the unloading station to service.

2. Unloading Operations (Monday through Friday, 06:30 – 14:30)
   2.1. Each PD truck enters the plant at the truck entrance ("Tatra Gate").
   2.2. The PD truck goes through the scale to be weighed and to exchange paperwork with the Scale House Attendant. The Scale House Attendant also informs the driver of the unloading limit of 14 psi.
   2.3. The PD truck stops at the sample room. The Lab Technician performs a radiation check, a visual inspection, a temperature check, and collects a grab sample per the Palmerton facility's Hazardous Waste Permit's (PAD002395887) QA/QC plan.

2.4. After sampling is completed, the truck goes to the EAFD PD unloading area where the driver will identify an open unloading station (as denoted by a green light) and back the truck into position.

2.4.1. As the truck moves into position, a motion sensor activates, and the Security Guard at the Main Gate and the Trestle Unloading Attendant are notified with visual and audible alerts that a truck is preparing to actively unload into a silo.

2.5. For the initial six (6) months of implementation of this Procedure, a trained Facility employee shall be present at the PD Station during all unloading operations to ensure operations are in compliance with the facility's Hazardous Waste Management Permit and applicable hazardous waste management regulatory requirements.

2.6. Four Closed-Circuit Television System (CCTV) cameras are used by both the Security Guard at the Main Gate and the Trestle Unloading Attendant at the trestle shanty to monitor unloading operations for any issues. Recordings are retained for a minimum of seven months.

2.7. In the event that the Security Guard or Trestle Unloading Attendant observe a problem, release, or potential release of EAFD during unloading operations, the Security Guard or Trestle Unloading Attendant will notify the Shift Foreman immediately via radio. at which time the Shift Foreman will proceed as soon as possible to the PD unloading area. The Shift Foreman will meet with the driver and log the pertinent information on the PD Truck Unloading Incident Tracking Form (RAS-005-F01). If warranted, the Shift Foreman will notify the Environmental Manager of the issue.

2.7.1. The Environmental Manager obtains a copy of the PD Truck Unloading Incident Tracking Form (RAS-005-F01) and enters the incident into the fugitive emission / visible emission logbook, as appropriate.

2.8. Truck drivers must remain outside their cab while unloading EAFD. They are to regularly inspect their hose connections as well as the hatches on top of their trucks.

2.9. Using their own 4-inch camlock fitted hoses, the driver connects the discharge line from their truck to the silo.

2.10. The driver then installs pneumatic vibrators onto the bottom of their trucks to aid in the flow of material into the silos.

2.11. The driver connects AZR's ¾ inch air hoses to the truck's vibrators.

2.12. The driver activates the truck's blower and unloads the EAFD into the silo.

2.12.1. While unloading the EAFD, wooden or rubber sledgehammers can be used to aid in unloading EAFD.

2.13. If the discharge line becomes blocked during unloading, the driver must immediately connect their 2-inch camlock fitted hose from their truck to AZR's silo.

2.13.1. The driver immediately depressurizes their truck into the silo.

2.13.2. Once the truck is depressurized, the driver unhooks the 4-inch discharge hose and moves the truck to another unloading station.

2.13.3. In the event that any residual material remains within the Unloading Station after completion of unloading, the driver is required to place this material in a container located within the Unloading Station and close the latching lid. AZR also performs a housekeeping inspection of the Unloading Station on a weekly basis.

2.14. After the truck has been unloaded, the driver returns the truck to the scale where the truck is weighed to verified that it is empty and the completed shipping documents are given to the driver by the Scale House Attendant.

RESPONSIBILITIES:

1. **Scale House Attendant** – Weighs PD trucks before and after unloading of EAFD. Complete and maintain the shipping documents. Informs truck drivers of unloading psi limit.

2. **Lab Technician** – Performs a radiation check, a visual inspection, a temperature check, and collects a grab sample per the Palmerton plant's Hazardous Waste Management Permit's (PAD002395887) QA/QC plan.
3. **Truck Driver** – Unloads EAFD in accordance with AZR's requirements.
4. **Trestle Unloading Attendant and Security Guard at Main Gate** – Monitors unloading operations and reports any issues to the Shift Foreman.
5. **Shift Foreman** – Responds to incidents at the unloading area and logs it onto RAS-005-F01.
6. **Environmental Manager** – Provide support to the Shift Foreman and logs incidents identified on RAS-005-F01 into the fugitive emission / visible emission logbook, as appropriate.
7. **Plant Manager** – Requires all trucking companies to (a) provide this procedure to all drivers and (b) ensure that all drivers comply with the elements of this procedure applicable to drivers.
8. **EAFD PD Truck Unloading Attendant** - For the initial six (6) months of implementation of this Procedure, a trained Facility employee shall be present at the PD Station during all unloading operations to ensure operations are in compliance with the facility's Hazardous Waste Management Permit and applicable hazardous waste management regulatory requirements.

RECORDS:

1. Hazardous Waste Management Permit (PAD002395887) QA/QC plan
2. RAS-005-F01 PD Unloading Incident Tracking Form
3. Fugitive emission / visible emission logbook

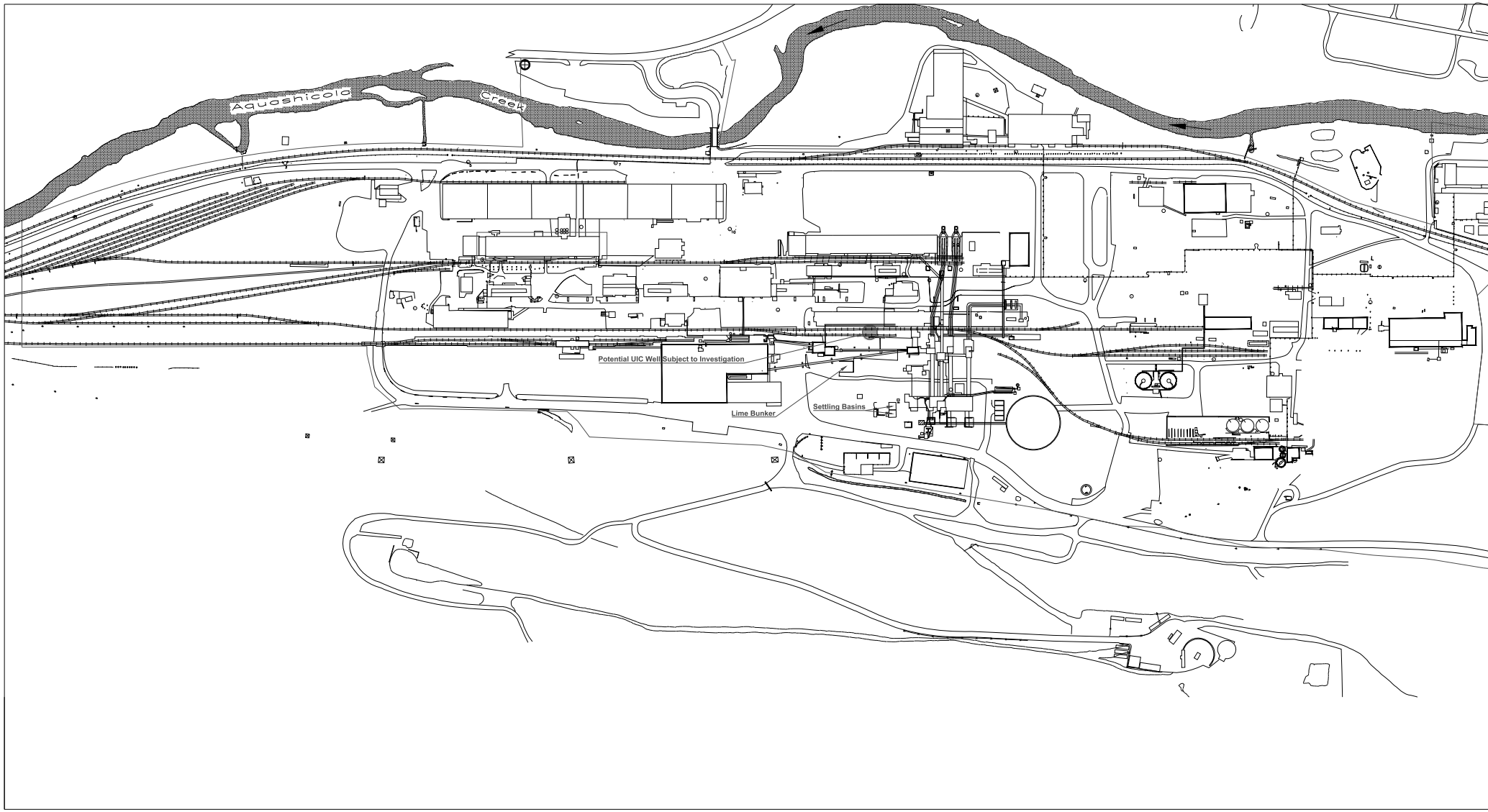
Revision Record

Revision No.	Revision Date	Description of Revision
0	3/5/2020	Original document

APPENDIX E

APPENDIX E-1: ROADWAY CLEANING ON DAYS ABOVE FREEZING

APPENDIX E-2: ROADWAY CLEANING ON DAYS BELOW FREEZING


Aquashicola Creek
Potential UIC Well Subject to Investigation
Lime Bunker
Settling Basins

AZR AMERICAN ZINC RECYCLING
Delivering a Sustainable Future

Stormwater Pollution Prevention Plan (SWPPP)

AMERICAN ZINC RECYCLING CORP.
900 Delaware Avenue
Palmerton, PA 18071
NPDES Permit ID No.: PA0064378

SWPPP Contact:

Joseph Falko
900 Delaware Avenue
Palmerton, PA 18071
(610) 826-8714

Contents

SECTION 1: FACILITY DESCRIPTION AND CONTACT INFORMATION

1.1 Facility Information

Facility Information

Name of Facility: **American Zinc Recycling Corp.**

Street: **900 Delaware Avenue**

City: **Palmerton** State: **PA** ZIP Code: **18071**

County or Similar Subdivision: **Carbon**

Permit Tracking Number: **PA0064378**

Latitude/Longitude – Obtained from GoogleEarth

LATITUDE 40.782

LONGITUDE -73.854

Method for determining latitude/longitude (check one):

☐ USGS topographic map (specify scale:_____) ☐ EPA Web site ☐ GPS

☒ Other (please specify): GoogleEarth

Is this facility considered a Federal Facility? ☐ Yes ☒ No

Estimated area of industrial activity at site exposed to stormwater: **115-acres**

Discharge Information

Name(s) of water(s) that receive stormwater from your facility **Aquashicola Creek**

Are any of your discharges directly into any segment of an "impaired" water? ☐ Yes ☒ No

If Yes, identify name of the impaired water (and segment, if applicable): **None**

Identify the pollutant(s) causing the impairment: **None**

For pollutants identified, which do you have reason to believe will be present in your discharge? **Although AZR does not expect any of the pollutants to be present in the discharge, best management practices are employed to minimize the potential for sediments and other debris to enter Aquashicola Creek.**

For pollutants identified, which have a completed TMDL? **Not applicable**

Are any of your stormwater discharges subject to effluent guidelines? ☐ Yes ☒ No

If Yes, which guidelines apply? **Not applicable**

1.2 Contact Information/Responsible Parties/SWPPP TEAM

Facility Owner/Operator:
Name: American Zinc Recycling Corp.
City, State, Zip Code: Palmerton, PA 18071
Telephone Number: (610) 826-2111

Responsible Corporate Officer:
Name: Michael Foster
Title: Plant Manager
Name: American Zinc Recycling Corp.
City, State, Zip Code: Palmerton, PA 18071
Telephone Number: (610) 826-8692
Email address: mfoster@azr.com

SWPPP Team Leader:
Name: Joseph Falko
Title: Environmental Manager
Name: American Zinc Recycling Corp.
City, State, Zip Code: Palmerton, PA 18071
Telephone Number: (610) 826-8714
Email address: jfalko@azr.com

1.3 Introduction

The American Zinc Recycling Corp. ("AZR") Palmerton Facility is located at 900 Delaware Avenue in Palmerton, Carbon County, Pennsylvania (the Facility). The Facility is bounded by Aquashicola Creek to the north and Blue Mountain to the south, and industrial activities conducted on the property occur on approximately 115-acres. Site elevations range between 406-feet and 420-feet above mean sea level (msl). The ground surface within the industrial operational areas of the Facility generally slopes toward Aquashicola Creek. Slopes become steeper in the southern portion of the Facility, adjacent to Blue Mountain, with a majority of the stormwater generated at the Facility directed to the north toward the Aquashicola Creek through a combination of sheet flow and direct utility conveyance mechanisms. A general Facility Location Map is provided in Attachment A.

This Stormwater Pollution Prevention Plan (SWPPP) has been prepared in general conformance with the Pennsylvania Department of Environmental Protection *Supplemental Guidance for the Development and Implementation of Preparedness, Prevention, and Contingency (PPC) Plans Under the National Pollutant Discharge Elimination System (NPDES) Stormwater Permitting Program* (*400-2200-001, August 2005)*.

The Facility recycles electric arc furnace (EAF) dust using high-temperature metal recovery technology to produce non-ferrous metal oxide and iron-rich aggregate material. The Facility operates 24-hours per day, seven days per week throughout the year. A description of the significant industrial process areas potentially exposed to stormwater is provided below and is also shown on a Facility Plan in Attachment A.

- EAF dust and carbon-based material (e.g., anthracite coal) are the two primary raw materials delivered to the Site. Carbon sources are delivered in end-dump trucks and unloaded in the Carbon Storage Area. EAF dust is delivered in pressure differential (PD) and hopper railcars and trucks. PD and hopper railcars are offloaded inside the railcar offloading station. PD trucks are offloaded at the PD truck offloading area and end-dump trucks are unloaded inside of Building 608.

- Railcars requiring maintenance are managed on a rail spur located in the westernmost portion of the Facility. Railcars requiring removal of materials before maintenance is performed are offloaded in this area. Material is vacuumed from the railcar (via vacuum trucks) and is transported to Building 608 or the G&H Building

- Within the 608 Building, EAF dust is conditioned, mixed with carbon-based material and pelletized prior to being conveyed via overhead belt conveyor to the Kiln Area. These operations are located within a building or are covered to prevent exposure to precipitation and wind.

- The pelletized material is fed to the Waelz kilns. Low-boiling point, non-ferrous metals are reduced and oxidized in the kiln and recovered as crude zinc oxide (CZO). CZO is captured in product collectors.

- CZO product is accumulated inside the G&H Building before being conveyed to the Calcine kilns. CZO stockpiled in the G&H Building is conditioned with water and conveyed through a covered overhead belt conveyor to the Calcine kilns. These operations are located within a building or are covered to prevent exposure to precipitation and wind.

- CZO is also received in PD railcars from off-site facilities and off-loaded at the CZO offloading station for temporary holding in the G&H Building. These operations are located within a building or are covered to prevent exposure to precipitation and wind.

- High temperature metal recovery residue, also known as iron-rich material (IRM), is discharged from the bottom of the kiln to a quench pit for cooling. IRM is removed from the quench pit by a drag conveyor and stockpiled south of the Kiln Building. IRM is transported via front-end loaders to the IRM Dome, where it is sampled and analyzed before being transported to the IRM Pad. IRM is then loaded into trucks and transported off-site to customers for beneficial re-use.

- Lead concentrate product from the Calcining operation is collected in product collectors and loaded into supersacks for shipment off-site to customers. Lead concentrate operations are located within a building or are covered to prevent exposure to precipitation and wind.

- The product from the Calcine kilns, Calcine, is cooled in a quench pit. Calcine is removed from the quench pit via a drag conveyor and temporarily stockpiled before being moved to the Calcine product storage building. From the Calcine product storage building, Calcine is loaded into trucks for shipment to customers.

1.4 Drainage Area Description

Discharge to two Outfalls 004 and 005 from the Facility are regulated under NPDES permit number PA0064378 (the Permit). A copy of the Permit and Permit application are included in Attachment B. The Permit regulates discharge of non-contact cooling water and stormwater to Aquashicola Creek. Both outfalls are monitored on a monthly basis for total suspended solids (TSS), oil and grease (O&G), and total cadmium, lead, and zinc and daily for flow, and pH.

Discharge at Outfall 004 is subject to effluent limitations for the parameters listed above, except flow. Discharge at Outfall 005 is subject to an effluent limitation for pH. In addition to stormwater runoff from the western-central portion of the AZR Facility, Outfall 005 receives stormwater flow from the cinder pile along the base of the mountain which originates from the adjacent Palmerton Zinc Superfund Site.

Drainage Area 004

Drainage Area 004 encompasses approximately 26 acres located in the central portion of the Facility. Surface water in the area generally drains from south to north toward Outfall 004 and Aquashicola Creek. AZR operations in this drainage area include material storage, kiln operations, air pollution control equipment, material conveyors and product collectors. A network of surface drains and underground stormwater conveyance lines traverse this area, extending from the kiln area to Aquashicola Creek at Outfall 004. The NPDES permit compliance monitoring point for this drainage area is located at a weir box approximately 350 feet upstream of the drainage pipe where discharge occurs to Aquashicola Creek at Outfall 004. AZR operations within Drainage Area 004 are discussed below.

Kiln Area

Non-potable water is used in the Kiln Area for non-contact cooling and product quenching purposes. Non-contact cooling water is used to prevent the kiln bearings from overheating. After cooling the kiln bearings, the non-contact cooling water is: 1) discharged to the pump pit; 2) conveyed from the pump pit to the settling basins for solids removal and pH adjustment (except under high-flow bypass conditions); and then 3) discharged through Outfall 004.

Water used for quenching IRM and Calcine products from the Waelzing and Calcining kilns, respectively, is primarily recirculated via a series of surface drainage features and sumps that recirculate the water back to the quench pits. Stormwater runoff beneath and immediately surrounding the kilns (Kiln Area), is generally captured in: 1) surface drains; 2) sub-surface drainage features; and 3) low-lying areas where it ponds. A portion of the stormwater runoff proximate to the kilns is conveyed to a pump pit. Under intended operating conditions, water enters the pump pit and is routed to the settling basins for solids removal and pH adjustment (using sulfuric acid) prior to discharge through Outfall 004.

CZO Unloading Area

Stormwater drainage in the CZO Unloading Area generally flows overland and ponds in localized lower lying areas. One catch basin located southeast of the CZO Unloading Area is located to receive some runoff from the CZO Unloading Area. Non-potable water is used to condition CZO in the G&H Building prior to being fed into the Calcining kilns. This water is used only in the process and is not exposed to or otherwise combined with stormwater runoff.

Area North of G&H Building

The northern portion of the Drainage Area for Outfall 004 includes an undeveloped grassy field. No storage of raw or finished materials nor processing operations occur in this area. AZR has not identified any drainage system features in this area, and surface water is conveyed via sheet flow toward Aquashicola Creek and accumulates in low areas as dictated by topography.

Drainage Area 005

The Outfall 005 drainage area encompasses approximately 34 acres of the western portion of the Facility. Stormwater runoff is directed over a large portion of the paved area to a series of catch basins along five lateral drainage pipes that flow from east to west. The laterals convey stormwater to a main trunk line that discharges at Outfall 005. Structures and operations located within this drainage area include buildings and operations for raw material unloading, indoor storage, mixing and conveyance of materials, and indoor storage of finished products. The compliance monitoring point for this drainage area is located at a weir box located within an isolated drainage swale that discharges to Aquashicola Creek. The monitoring point is located at an elevation above the floodplain, and approximately 150-feet from the discharge point to Aquashicola Creek during low flow. Operations and stormwater considerations within Drainage Area 005 are discussed below.

Palmerton Zinc Superfund Site Water Run-on

Stormwater runoff from the Palmerton Superfund Site, specifically the cinder bank, is captured and conveyed by surface swales and underground piping, and ultimately enters the trunk line that discharges at Outfall 005. Stormwater from the mountain commingles with stormwater runoff conveyed to the trunk line via surface drains and underground lateral pipes from the Facility, and discharges through Outfall 005. AZR has observed a continuous base-flow from the Palmerton Superfund to Outfall 005.

Carbon Storage and EAF PD Unloading

Carbon-based material delivered to the Site is staged in a 3.5-acre area located in the southwestern portion of the drainage area that discharges to Outfall 005. This area is located adjacent to the PD unloading structure for trucks and railcars that deliver EAF dust. The truck unloading area is covered with a roof and surrounded by walls on three sides. Stormwater runoff in this area is conveyed to a swale along a road defining the southern boundary of the drainage area. The swale conveys the stormwater into a catch basin and is then routed to the main trunk line to Outfall 005.

Building 608

Building 608 is used for storage of EAF dust. Dump trucks are unloaded inside the building, which also contains an indoor truck wash area, and pelletizing operations for EAF dust and carbon. Stormwater runoff from the area around Building 608 flows to a series of catch basins near Building 608 that discharge to lateral underground pipes and to the main trunk line to Outfall 005.

Calcine Storage Building

The Calcine product storage building is also located within the Outfall 005 Drainage Area. Stormwater runoff primarily drains to a series of surface drains that discharge to an underground lateral stormwater pipe along the road north of the Calcine Building. The stormwater collected in the surface drains flows to the trunk line, located along the road, and discharges to Outfall 005.

Support Areas

The central and northern portion of the Outfall 005 Drainage Area includes Facility support buildings for equipment maintenance, employee break rooms, and company offices. Stormwater in this area flows to a series of catch basins along underground lateral stormwater pipes that discharge to the main trunk line to Outfall 005.

1.5 Stormwater Pollution Prevention Team

The Environmental Manager or Designee is responsible for SWPPP implementation as well as oil and regulated substance discharge prevention, control, and response preparedness activities. The Facility has a pollution prevention team that meets annually.

The pollution prevention team is responsible for assisting the plant manager in developing, implementing, maintaining, and revising the Facility's SWPPP. AZR staff individuals who comprise the Facility's stormwater pollution prevention team are as follows:

Team Member	Title	Responsibilities/Activities
Joe Falko	Environmental Manager	SWPPP Team Leader and Inspections/Sampling
Mike Resh	Health and Safety Manager	SWPPP Team Member
Mike Foster	Plant Manager	SWPPP Team Member
Dave Kunkle	Materials & Environmental Controls Supervisor	SWPPP Team Member
Larry Borger	Environmental Technician	SWPPP Team Member
Terry Van Strander	Environmental Technician	SWPPP Team Member

All new Facility personnel in areas that have a reasonable potential for stormwater discharge associated with industrial activities or with oil-handling responsibilities are provided with SWPPP training prior to being involved in the operation of such areas.

Annual discharge prevention briefings are held by the Environmental Manager for all Facility personnel involved in stormwater, oil, and/or relevant material handling operations. The briefings are aimed at ensuring continued understanding and adherence to the discharge prevention procedures presented in this SWPPP. The briefings also highlight and describe known discharge events or failures, malfunctioning components, and recently implemented precautionary measures and best practices.

Facility operators and other personnel will have the opportunity during the briefings to share recommendations concerning health, safety, and environmental issues encountered during Facility operations. Records of the training are maintained with the Facility training records.

SECTION 2: POTENTIAL POLLUTANT SOURCES

2.1 Significant Stored Materials: Raw Materials and Produced Products

Material Description	Method/Location of Storage	Management Practices	Storm Water Controls
Feedstock			
Electric Arc Furnace (EAF) Dust and other zinc-bearing materials	Building 608. Dump trucks and containers are unloaded directly into Building 608. PD trucks and railcars are unloaded at the PD/Trestle unloading area west of Building 608.	Trained personnel perform all unloading activities. Dump trucks are unloaded in the center area of Building 608. Railcars and PD trucks are unloaded west of Building 608 and material is conveyed in an enclosed system to Building 608.	Immediate cleanup by road sweeper or vacuum truck. Fabric filters are installed at all stormwater catch basins. For larger catch basins, filter socks are used.
Carbon	Carbon is stockpiled west of Building 608, in sorted piles by type and vendor.	Daily road sweeping of the black top area adjacent to stockpiles.	Storage area is bordered by a swale to capture any runoff. Surface drains and diversion pipes protected with fabric filters installed at all stormwater catch basins. For larger catch basins, haybales or filter socks are used.
Blended Feed Material	Enclosed within bins and hoppers inside Building 608.	Covered storage and conveyors.	No exposure, inside building.
Product			

Material Description	Method/Location of Storage	Management Practices	Storm Water Controls
Iron-Rich Material (IRM) [Note: IRM is initially hauled from the kilns to the IRM Dome and then tested for the toxicity characteristic (TCLP for metals). On receipt of testing results, if all results are lower than regulatory limits, the IRM is hauled from the IRM Dome to the IRM Pad or Stoney Ridge outdoor areas.]	IRM from the kilns hauled to the IRM Dome. Oversize IRM collected in enclosed bunkers and then transferred to the stockpile area and or Building 608 by mobile equipment.	Housekeeping and established loading/unloading procedures.	Management controls and storage in the IRM Dome. Berms surround stockpiling areas.
Waelz Oxide (WOX)	Product collectors north of Kilns 2 and 5 and east of Kiln 1 collect and discharge material for blending in G&H Building, along with material unloaded from WOX railcars from other facilities. This material then blended to feed the Calcining Kiln 6.	Preventative maintenance of product collectors and daily inspections Housekeeping procedures.	Immediate cleanup by road sweeper or vacuum truck. Surface drains and diversion pipes protected with fabric filters installed at all stormwater catch basins. For larger catch basins, filter socks are used.
Zinc Calcine	Stored in an enclosed area, south of the Kiln 6 discharge.	Trained personnel handle and weigh material for inventory control and storage.	Storage area is bordered by concrete retaining walls and is under a roof. Surface drains and diversion pipes protected with fabric filters installed at all stormwater catch basins. For larger catch basins, filter socks are used.
Lead Concentrate	Collected by a product bag room system, and pneumatically conveyed to a storage bin northeast of Kiln 6.	Packaged in super sacks and transferred with forklifts to Building #719. Trained personnel package and handle the material prior to shipment. Sacks are stored under roof and managed by lot arrangement.	No exposure, inside Building #719, #672, #603, #604, #611, #710, and/or #864 No exposure during pneumatic transfer and storage. Surface drains and diversion pipes protected with fabric filters installed at all stormwater catch basins. For larger catch basins, filter socks are used.

Note: All locations are depicted in Attachment A.

Significant Stored Materials: Containerized Stored Materials

Tank/ Container #	Description/ Contents	Capacity (gallons)	Containment	Overfill/Overflow Method	Storm Water Exposure/Controls
001A	Diesel fuel, storage	20,000	Full clay dike secondary containment (38' x 56' x 3' = 6,384 CF x 7.481= 47,759 gallons)	Manual level readings, direct observation when filling.	Exposed. Storm water collected in the diked area is inspected and drained to ground, or if oil is present it is removed with absorbent or a vacuum truck.
002A	Fuel oil, storage	20,000	Full clay dike secondary containment (38' x 56' x 3'= 6,384 CF x 7.481 = 47,759 gallons)	Manual level readings, direct observation when filling.	Exposed. Storm water collected in the diked area is inspected and drained to ground, or if oil is present it is removed with absorbent or a vacuum truck.
011A	Waste oil, storage	1,000	Full steel secondary containment (13' x 6' x 2' =156 CF x 7.481 = 1,167 gallons)	Level indicator, direct observation when filling.	Exposed. Storm water collected in the diked area is inspected and drained to ground, or if oil is present it is removed with absorbent or a vacuum truck.
Stoney Ridge	Diesel fuel, storage	1,000	Full steel secondary containment (11" 3'' x 6' x 2' 3''= 151.9 CF x 7.481 = 1136 gallons)	Level indicator, direct observation when filling.	Exposed. Storm water collected in the diked area is inspected and drained to ground, or if oil is present it is removed with absorbent or a vacuum truck.
Stoney Ridge	Kerosene	250	Full steel secondary containment (2.5 ' x 5.5' x 2.75' = 37.8 CF x 7.481= 282.8 gallons)	Level indicator, direct observation when filling.	Exposed. Storm water collected in the diked area is inspected and drained to ground, or if oil is present it is removed with absorbent or a vacuum truck.
#1 Kiln emergency generator	Fuel oil, storage	2,005	Double-wall tank system.	Direct observation of gauge when filling.	No exposure located under generator unit.
Underground Storage Tank #002	Gasoline, storage	4,000	Single-wall tank system with monitoring system and cathodic/ galvanic protection.	Level indicator, direct observation when filling.	Not exposed, underground.
#1 Kiln drive	Gear box, oil-filled operating equipment	70	Active response.	Direct observation when filling.	Minimum exposure. Frequent formal and informal inspections, and cleanup.
#2 Kiln drive	Gear box, oil-filled operating equipment	70	Active response.	Direct observation when filling.	Minimum exposure. Frequent formal and informal inspections, and cleanup.
#5 Kiln drive	Gear box, oil-filled operating equipment	70	Active response.	Direct observation when filling.	Minimum exposure. Frequent formal and informal inspections, and cleanup.

Tank/ Container #	Description/ Contents	Capacity (gallons)	Containment	Overfill/Overflow Method	Storm Water Exposure/Controls
#6 Kiln drive	Gear box, oil-filled operating equipment	70	Active response.	Direct observation when filling.	Minimum exposure. Frequent formal and informal inspections, and cleanup.
South pelletizer	Gear box, oil-filled operating equipment	70	Active response.	Direct observation when filling.	No exposure, inside building 608.
North pelletizer	Gear box, oil-filled operating equipment	70	Active response.	Direct observation when filling.	No exposure, inside building 608.
Substation #29	Transformer, oil-filled operating equipment Mineral oil PCB content <1 ppm	500	Active response.	Sealed transformer, typically no filling on-site. Any on-site filling would be by direct observation.	Exposed. Frequent formal and informal inspections, and cleanup.
Substation #30	Transformers, oil-filled operating equipment Transformer #1: Mineral oil, PCB content <1 ppm Transformer #4: Mineral oil, PCB content 13.0 ppm	Transformer #4: 1700 gallons Transformer #1: 3280 gallons	Active response.	Sealed transformer, typically no filling on-site. Any on-site filling would be by direct observation.	Exposed. Frequent formal and informal inspections, and cleanup.
Substation #36	Transformer, oil-filled operating equipment Mineral oil PCB content 27 ppm	215	Active response.	Sealed transformer, typically no filling on-site. Any on-site filling would be by direct observation.	Exposed. Frequent formal and informal inspections, and cleanup.
Substation #37	Transformer, oil-filled operating equipment Mineral oil PCB content <1 ppm	211	Active response.	Sealed transformer, typically no filling on-site. Any on-site filling would be by direct observation.	Exposed. Frequent formal and informal inspections, and cleanup.
Substation #42	Transformer, oil-filled operating equipment Mineral oil PCB content <1 ppm	378	Active response.	Sealed transformer, typically no filling on-site. Any on-site filling would be by direct observation.	Exposed. Frequent formal and informal inspections, and cleanup.
Substation #43	Transformer, oil-filled operating equipment Mineral oil PCB content <1 ppm	> 55	Active response.	Sealed transformer, typically no filling on-site. Any on-site filling would be by direct observation.	Exposed. Frequent formal and informal inspections, and cleanup.
#12 Storage area	Transformer, oil-filled operating equipment	3 @ > 55 gallons	Active response.	Sealed transformer, typically no filling on-site. Any on-site filling would be by direct observation.	No exposure, inside a building.
Mobile equipment shop	Oils/lubricants, storage	Typically 15 drums @ 55 gallons each.	Contained by the building structure.	Vendor-supplied drums, no filling on-site.	No exposure, inside a building.
#11 storage	Oils/lubricants, storage	Typically 50 drums @ 55 gallons each.	Contained by the building structure.	Vendor-supplied drums, no filling on-site.	No exposure, inside a building.

Tank/ Container #	Description/ Contents	Capacity (gallons)	Containment	Overfill/Overflow Method	Storm Water Exposure/Controls
Kiln operating floor	Oils/lubricants, storage	Typically, 3 drums @ 55 gallons each.	Contained by the building structure, and secondary containment spill pallet.	Vendor-supplied drums, no filling on-site.	No exposure, inside a building.
Oil shanty under kilns	Lubricant, storage	Typically 4 drums @ 55 gallons each.	Contained by the building structure, and curbing.	Vendor-supplied drums, no filling on-site.	No exposure, inside a building.
Maintenance drum storage	Lubricant, storage	Typically 6 drums @ 55 gallons each.	Contained by the building structure.	Vendor-supplied drums, no filling on-site.	No exposure, inside a building.
#40 Substation	Oil, storage	Typically 1 @ 55 gallons.	Contained by the building structure, and secondary containment spill pallet.	Vendor-supplied drums, no filling on-site.	No exposure, inside a building.
Compressor building	Oil storage	Typically 2 drums @ 55 gallons each.	Contained by the building structure, and secondary containment spill pallet or booms.	Vendor-supplied drums, no filling on-site.	No exposure, inside a building.
Stoney Ridge Aggregates	Oil, storage	Typically 7 drums @ 55 gallons each.	Contained by the building structure, and secondary containment spill pallet.	Vendor-supplied drums, no filling on-site.	No exposure, inside a building.
Chestnut Ridge Railroad	Oil, storage	Typically 3 drums @ 55 gallons each.	Contained by the building structure, and secondary containment spill pallet.	Vendor-supplied drums, no filling on-site.	No exposure, inside a building.
Compressor Building Powders Department	Oil, storage	Typically 6 drums @ 55 gallons each.	Contained by the building structure, and within a boomed area.	Vendor-supplied drums, no filling on-site.	No exposure, inside a building.
West of Kiln, #001A	Sulfuric acid, storage	405	Full plastic secondary containment, tank within a tank. Bricked curbing around tank area.	Any on-site filling would be by direct observation (level indicator).	Not exposed, under a roof with side covering.
Mobile Tank #001	Diesel	300	Full metal secondary containment.	Any on-site filling would be by direct observation.	Stored within a building when not in use.
Mobile Tank #002	Diesel	80	Truck mounted; bed serves as secondary containment.	Any on-site filling would be by direct observation.	Stored (parked) under cover when not in use.

2.2 Potential Spills and Leaks

Areas of Site Where Potential Spills/Leaks Could Occur
Material Storage Areas and Potential Impacts

Source or Area	Potential Event	Direction of Flow	Pollution Prevention Control(s)
Bulk Oil Storage and Fueling Areas			
Diesel, waste oil, kerosene, fuel oil tank, hose or dispenser	Leak from tank, hose or dispenser, or delivery/pickup vehicle.	Tanks are in containment. Hose or dispenser, or delivery/pickup vehicle flow would remain within the adjacent area.	Secondary containment for tanks. Operator or facility personnel are continuously present with equipment when dispensing fuels or transferring oils. Any spillage outside containment would be discovered immediately and contained with response equipment. Any residual material would be removed as soon as possible.
Underground gasoline storage tank	Tank or piping failure, overfill, or leak from hose/dispenser or delivery vehicle leak.	Tank or piping failure underground groundwater flow toward creek, aboveground toward storm water management ditch.	Underground tank system monitoring alert. Operator or facility personnel are continuously present with equipment when dispensing or transferring fuel. Any aboveground spillage outside containment would be discovered immediately and contained with response equipment. Any residual material would be removed as soon as possible.
Drum Storage Areas			
Maintenance shop, kiln areas, etc.	Drum leak, spill, or knocked over.	Contained in building or within other secondary containment.	Any spillage would be discovered immediately and contained with response equipment. Residual contained material would be removed as soon as possible.
Oil-filled Operating Equipment Areas			
Gear boxes and transformers	Equipment reservoir failure.	Material would remain within the adjacent area, or if influenced by rainfall, flow toward storm water management ditch.	Secondary containment. Any spillage would be discovered proximal to the equipment due to the relatively small volumes present within the equipment. Residual contained or released material would be removed as soon as possible.
Solid Materials Areas (EAF, IRM, carbon)	Conveyor or transfer failure.	To ground, some potential for minimal dispersion by wind.	Immediate cleanup with sweeper, vacuum truck, or by hand-held tools.

Note: All potential event flow rates are considered instantaneous, as a worst-case scenario.

Description of Past Spills/Leaks

Date	Description	Outfalls
None	Not applicable – No significant spills	Not applicable

Note: one minor spill occurred at the Facility and was immediately cleaned up through appropriate spill response protocols and procedures. These materials did not impact stormwater at the Facility.

- March 19, 2019: a small volume of gear oil was spilled onto the ground along the south side of Building 608. A drive shaft for one of the front-end loaders malfunctioned and caused minor spillage of oil onto the ground.

2.3 Non-Stormwater Discharge Documentation

The SWPPP includes an evaluation that all outfalls have been tested or evaluated for the presence of non-stormwater discharges. A copy of the evaluation is maintained at the Facility.

Please note that AZR has observed a continuous base-flow from the Facility to Outfall 004 and from the Palmerton Superfund Site to Outfall 005, based on historic dry-weather observations.

2.4 Salt Storage

Salt is stored outdoors in a three-sided building on a paved surface. This storage area is located at the Lime Bunker or within the PD Unloading area as depicted in Attachment A.

2.5 Sampling Data Summary

See Attachments C and D for results of regular outfall monitoring. The results are compiled from the Discharge Monitoring Reporting (“DMR”) and enhanced quarterly stormwater monitoring being implemented by the SWPPP Team.

SECTION 3: STORMWATER CONTROL MEASURES

Stormwater control measures include secondary containment for drums and tanks, good housekeeping practices, and conducting all material transfer activities in a manner to prevent exposire to stormwater. In addition, the Facility has implemented enhanced BMPs including the deployment of fabric filters for all stormwater catch basins as a protective measure to capture sediments that may potentially reach surface drains and conveyance piping in relevant procecessing and material storage areas. For larger catch basins, filter socks or hay bales are currently being used to protect surface inlets and associated catch basins.

In accordance with the Permit's effluent limitations, the Facility minimizes the exposure of manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and runoff.

3.1 Minimize Exposure

AZR shall minimize exposure of manufacturing, processing, material, and waste storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and runoff by either locating industrial materials and activities inside or protecting them with storm resistant coverings wherever feasible. Exposure minimization measures may include at a minimum:

1. Use grading, berming or curbing to prevent runoff of polluted stormwater and divert run-on away from areas that contain polluted stormwater. This minimization measure is also addressed in SWPPP Sections 2.1 and 2.2.
2. Locate materials, equipment, and activities so that potential leaks and spills are contained or able to be contained or diverted before discharge to surface waters. This minimization measure is also addressed in SWPPP Sections 2.1 and 2.2.
3. Clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants to surface waters. This minimization measure is also addressed in SWPPP Sections 2.1 and 2.2.
4. Store leaky vehicles and equipment indoors or, if stored outdoors, use drip pans and absorbents to prevent the release of pollutants to the environment. This minimization measure is also addressed in SWPPP Sections 3.3 and 5.
5. Use spill/overflow protection equipment. This minimization measure is also addressed in SWPPP Sections 2.1 and 2.2.
6. Perform all vehicle and/or equipment cleaning operations indoors, under cover, or in bermed areas that prevent runoff and run-on and also that capture any overspray. This minimization measure is also addressed in SWPPP Sections 3.3 and 5.
7. Drain fluids from equipment and vehicles that will be decommissioned, and, for any equipment and vehicles that will remain unused for extended periods of time, inspect at least monthly for leaks. This minimization measure is also addressed in SWPPP Sections 3.3 and 5.
8. Keep all dumpster lids closed when not in use. For dumpsters and roll off boxes that do not have lids, securely cover with a tarp or ensure that discharges have a control. This minimization measure is also addressed in SWPPP Section 3.2.
9. Minimize contamination of stormwater runoff from fueling areas by implementing the following BMPs where determined to be feasible: cover fueling areas; install oil/water separators or oil and grease traps in fueling area storm drains; use berms to prevent run-on to and runoff from fueling areas; use spill/overflow protection and cleanup equipment; use dry cleanup methods; and/or treat and/or recycle collected stormwater runoff. This minimization measure is also addressed in SWPPP Sections 2.1, 2.2, 3.3, 3.7, and 5.
10. Train employees routinely (no less than annually) on stormwater pollution prevention practices. This minimization measure is also addressed in SWPPP Sections 1.5, 3.2, 3.3, and 3.7.

3.2 Good Housekeeping

Housekeeping is ongoing and continuous and includes keeping clean all exposed areas that are potential sources of pollutants, using such measures as sweeping at regular intervals, keeping materials orderly and labeled, and storing materials in appropriate containers. Good housekeeping includes, but is not limited to, the following: sweeping or vacuuming on a regular schedule of all process areas, including but not limited to areas around the quench tanks and IRM/calcine bunkers, storing materials in appropriate containers, performing, as-needed, clean outs at catch basins, coal swales, and settling ponds at a frequency that ensures EAF dust and other materials are removed.

Good housekeeping is implemented by the Facility personnel to reduce the potential for storm water pollution, accidental spills and safety hazards. Housekeeping procedures include orderly material storage and prompt cleanup of any spills or leaks. Housekeeping practices also include ensuring sufficient aisle space is available for the movement of spill or emergency response equipment through the Facility, as needed.

Additional good housekeeping activities at the Facility include the following:

- Employees are instructed and trained on the subject of good housekeeping techniques.
- Periodic safety inspections of all work areas include monitoring of housekeeping.
- Informal, daily visual inspections are conducted by all employees in the area in which they work to ensure that proper good housekeeping procedures are followed.
- No flammable or combustible materials are stored in or around electrical equipment.
- Trash is placed into the trash dumpsters properly to assure that debris is not released outside of the compactor and that it is free of liquids.
- Regular sweeping and water truck dust suppression of paved roadways is conducted to minimize contact of sediments and solid with storm water (see Attachment E).
- Paved roadways and concrete pads are kept clean of diesel oil, hydraulic fluids, raw materials, and IRM.
- Any hydraulic oil and other petroleum products that spill onto the concrete pad are cleaned up with adsorbent, swept and collected, and properly disposed in the waste containers.
- All chemicals, oils, lubricants, and any other items necessary for operations are either stored indoors or otherwise contained. Movement of any liquid materials around the site will be in closed containers.

3.3 Maintenance

The Facility must regularly inspect, test, maintain, and repair all industrial

equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in stormwater discharged to surface waters of the state. All control measures that are used to achieve the requirements of the Permit must be maintained in proper operating condition. Nonstructural control measures must also be diligently maintained (e.g., spill response supplies available, personnel appropriately trained). If an inspection indicates that control measures need to be replaced or repaired, the necessary repairs or modifications shall be made as expeditiously as practicable. In addition, the following have been implemented:

- Performing maintenance activities indoors, to the extent practicable; using drip pans as needed;
- Keeping an organized inventory of estimated materials typically stored in the Maintenance and Repair shops;
- Draining all parts of fluids prior to disposal (including used oil filters);
- Prohibiting wet cleanup practices;
- Using dry cleanup methods (including spill pads, sorbent materials, etc.);
- Minimizing run-on/runoff of stormwater to outdoor areas by conducting operations indoors;
- Inspections of stormwater catch basins, with maintenance of inlets, fabric filters, and filter socks as needed.
- Cleaning of stormwater conveyance pipelines as needed based on the quarterly stormwater control inspection (see section 5)
- Inspections of quench pit leveling devices, and conveyance pumps

3.4 Spill Prevention and Response

The Facility minimizes the potential for leaks, spills and other releases that may be exposed to stormwater and has developed plans for effective response to such spills if or when they occur. These efforts include:

- Procedures for clearly labeling containers in accordance with OSHA guidelines;
- Bollards are located around the hydrants; traffic speed is regulated in all outdoor areas;
- Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases; and
- Procedures for notification of appropriate Facility personnel, emergency response agencies, and regulatory agencies.

3.5 Erosion and Sediment Controls

The Facility maintains controlled runoff using structural and/or nonstructural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants.

3.6 Management of Runoff

See Section 3.5.

3.7 Employee Training

The Facility trains employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of the Permit (e.g., inspectors, maintenance personnel), including all members of the Stormwater Pollution Prevention Team. Training covers both the specific control measures used to achieve the requirements of the SWPPP and the Permit. Employee training shall take place at least once per calendar year, and will address the following:

- Dust control and cleanup measures;
- Used oil and spent solvent management;
- Fueling procedures;
- General good housekeeping practices;
- Used battery management; and
- Pest control including use of herbicides (*performed by outside vendor*).

3.8 Non-Stormwater Discharges

- See Section 2.3 above.

3.9 Waste, Garbage and Floatable Debris

The Facility ensures that waste, garbage, and floatable debris are not discharged to Aquashicola Creek by keeping exposed areas free of such materials or by intercepting them before they are discharged.

3.10 Dust Generation and Vehicle Tracking of Industrial Materials

The Facility minimizes generation of dust and off-site tracking of raw, final, or waste materials. See Section 3.2 above.

3.11 Stormwater Quality Controls – Sediment Drain Guard Filters

The Facility has evaluated a variety of fit-for-purpose stormwater quality control devices as an enhanced stormwater control measure. Based on that evaluation, the Facility has installed polypropylene geotextile fabric filter systems designed to capture sediments, trash, and related debris at all stormwater surface inlets throughout the Facility. The filters utilize a geotextile fabric such as the New Pig FLT748 (or equivalent), for removing sediment from water. For larger surface inlets where sediment drain filters

are commercially unavailable, the Facility has implemented use of filter socks (or hay bales) surrounding the surface inlet. The use of fabric filter systems and filter socks as a control measure for sediments is consistent with the PADEP's Erosion and Sediment Pollution Control Manual (March 2012). Figures detailing the locations of the installed filters and filter socks are shown in Attachment E.

Drain Guard Inspections, Maintenance and Replacement

The fabric filter drain guards are designed to be used for 3 to 6 months under normal conditions. While the Facility anticipates the frequency of filter change-out will occur quarterly to semi-annually based on manufacturer's recommendations, the filters will be changed where an inspection identifies excess sediment buildup on the filter element or if the filter is damaged or compromised.

The fabric filter drain guards will be visually inspected on a weekly frequency and cleaned and/or replaced as needed based on these inspections. In addition, the Facility will perform inspections of the catch basins on a weekly frequency. If the inspection reveals accumulated sediment or debris, the Facility will clean out the catch basin as necessary to maintain a six-inch clearance of debris below the lowest outlet pipe.

Further installation and maintenance instructions can be found in Attachment F.

3.12 Contact Cooling Water Quality Controls

For each kiln, non-potable contact cooling water is measured by a pressure leveling device called a bubbler. The bubbler is intended to prevent contact cooling water inside the quench pits from overflowing its containment structure. In addition, IRM and calcine which are saturated with cooling water are temporarily stockpiled in three sided bunkers; cooling water that seeps from these piles is routed via a swale to a sump pump. The sump pump recycles the cooling water back into the quench pit.

Inspections, Maintenance and Replacement

The bubbler systems for each kiln is inspected four times a shift. If the bubbler system is not working, the maintenance department is notified, and the system is repaired and/or replaced. On a weekly basis, swales are inspected to verify that they are free of obstructions. Sump pumps are also inspected on a weekly basis to confirm they are working properly.

SECTION 4: SCHEDULES AND PROCEDURES FOR MONITORING

In accordance with the Permit, process wastewater is sampled and analyzed for pollutants of concern on a daily and twice-per-month basis. Although not currently addressed by the current Permit, AZR collects and analyzes stormwater discharges from

existing Outfalls 004 and 005 during appropriate wet weather events, in addition to standard monitoring being conducted pursuant to the Permit.

Numeric effluent limitations and monitoring requirements apply to discharges from Outfall 004 as they pertain to process wastewater/stormwater discharges from Outfall 004 in accordance with the Permit. The Permit also provides for monitoring of parameters and an effluent limitation for pH for the discharge from Outfall 005 .

The Facility will collect and perform quarterly analyses on stormwater samples and document monitoring activities consistent with the methods described in this Procedure. All monitoring is to be conducted in accordance with the relevant sampling and analysis requirements at 40 C.F.R. Part 136.

Quarterly Monitoring of Outfalls 004 and 005

Pollutant Parameters to be sampled.
pH, oil and grease (O&G), Total Suspended Solids (TSS), total cadmium, total lead, and total zinc shall be sampled and analyzed quarterly.

Monitoring Schedules.
Discharges should be sampled quarterly for all pollutant parameters.

Outfall 004 Benchmark Values

Parameter	Effluent Limitations			
	Daily Minimum	Monthly Average	Daily Maximum	Instant. Maximum
pH (S.U.)	6.0	X	9.0	X
Total Suspended Solids (mg/L)	X	20.0	30.0	X
Oil and Grease (mg/L)	X	15.0	X	30.0
Total Cadmium (mg/L)	X	0.10	0.20	X
Total Lead (mg/L)	X	0.35	0.70	X
Total Zinc (mg/L)	X	1.20	2.40	X

Outfall 005 Benchmark Values

Parameter	Effluent Limitations	
	Daily Minimum	Daily Maximum
pH (S.U.)	6.0	9.0

Note: If the results of inspections, monitoring and/or analysis reveal an exceedance of a benchmark value listed above, the Facility will contact Corporate Environmental Affairs; additional inspections, monitoring and/or laboratory analysis of stormwater samples may also be required. In the event of an accident or incident causing an unanticipated non-compliance or potential pollution condition, the Facility will report immediately to the PADEP if a toxic substance or another substance would endanger downstream users of the waters of this Commonwealth. Reporting of unanticipated bypasses or exceedances of effluent limitations in the NPDES permit will be reported to the PADEP within 24-hours.

Sampling Procedures.

This section describes sampling procedures for stormwater monitoring events only and does not include routine sampling in conformance with the current NPDES permit.

Samples must be collected using the grab technique, at the monitoring locations for Outfalls 004 and 005 (composite sampling techniques will not be utilized).

Samples will be collected from discharges resulting from a **qualifying** storm event. A qualifying storm event is a storm event with at least 0.1 inch of precipitation (defined as a "measurable" event), provided that the interval from the preceding measurable storm event is at least 72-hours. The 72-hour storm interval is waived if the preceding measurable storm event did not result in a stormwater discharge, or if AZR is able to document that less than a 72-hour interval is representative for local storm events during the sampling period.

All grab samples shall be taken within the first 30 minutes of a discharge resulting from a qualifying storm event, unless the Facility determines that this is not practicable (e.g., safety reasons, flooding, etc.), in which case grab samples must be collected as soon as practicable after the first 30 minutes of any discharge resulting from a qualifying storm event.

During the quarterly sampling event, measurements for pH will be collected in the field utilizing AZR's portable pH probe.

Quarterly Visual Inspection of all Outfalls

Visual Inspection

During quarterly sampling activities referenced above, a grab sample will be collected from each monitoring location in a clean, colorless glass or plastic container, and examined in a well-lit area. The visual inspection of each sample will include an

observation for the following water quality characteristics: Color, Odor, Clarity (diminished), Floating Solids, Settled Solids, Foam, Oil Sheen, and other obvious indicators of stormwater pollution.

Records of the visual inspection will be recorded on the Stormwater Sample Event Record Log (SW-002-F01). See Attachment G for Periodic Inspection documentation and templates.

The Facility collects and analyzes stormwater samples and documents monitoring activities consistent with the procedures described in the Permit. All monitoring is conducted in accordance with the relevant sampling and analysis requirements at 40 C.F.R. Part 136. A summary of the data to be collected during the term of the Permit is included in Attachments C and D.

SECTION 5: INSPECTIONS

The Facility will perform the following inspection and monitoring activities, as described in this section:

- Periodic AZR BMP Implementation Inspections
- Annual Comprehensive Site Inspection
- Quarterly visual monitoring
- Quarterly Stormwater Control Inspections

Periodic AZR BMP Implementation Inspections
Performed by SWPPP Team Leader or Member

The Facility implements periodic BMP and good housekeeping inspections. The inspections are completed on a periodic basis and have been assigned to relevant personnel in each operating area. The object of the periodic inspections is to facilitate the implementation of BMPs as well as compliance with the non-numeric effluent limitation inspection requirements listed above. The periodic inspections must be documented and maintained on-site with the SWPPP. Examples of the periodic inspections can be found in Attachment G.

The following areas/activities shall be included in all inspections and shall be conducted according to the specified frequency:

- Storage area for vehicles /equipment awaiting maintenance;
- Indoor and outdoor vehicle/equipment maintenance areas;
- Material storage areas (e.g., carbon storage area);
- Vehicle/equipment cleaning areas;
- Loading/unloading areas;
- Waste management units;

- Weekly fabric filter Drain Guard Filters (locations identified in Attachment E);
- Weekly inspection of Building 608 and PD Unloading areas;
- Weekly inspections of hazardous waste container areas;
- Weekly inspections of catch basins;
- Quarterly stormwater inspections (comprehensive).

Annual Comprehensive Site Compliance Inspection and Evaluation
Performed by SWPPP Team Leader

The Facility will conduct inspections (site compliance inspection) at least once per year. The inspections shall be performed by qualified personnel or outside consultants hired by the Facility. The inspectors must be familiar with the industrial activity, the BMPs, the SWPPP, and must possess the skills to assess conditions at the Facility that could impact stormwater quality and assess the effectiveness of the BMPs that have been chosen to control the quality of the stormwater discharges. The PADEP's Annual Comprehensive Compliance Evaluation Form should be used to document the annual comprehensive inspection. The Comprehensive Site Compliance Inspection and Evaluation is expected to be completed during the 3rd Quarter of each year (typically in conjunction with the 3rd Quarter Visual Monitoring event).

Quarterly Visual Monitoring
Performed by SWPPP Team Leader or Member

The Facility will perform and document a quarterly visual examination of a stormwater discharge event associated with industrial activity from each outfall. The visual examination will be documented and maintained on-site with the SWPPP.

Quarterly Stormwater Control Inspections
Performed by SWPPP Team Leader or Member

The Facility will conduct formal quarterly stormwater inspections. Quarterly stormwater inspection reports shall include the following:

- The inspection date and time;
- The name(s) and signature(s) of the inspector(s);
- Weather information;
- Monitoring sump conditions;
- Outfalls 004 and 005 collection system conditions;
- Evidence of spills or materials accumulation; and
- Evaluation of lateral drainage systems contributing to Outfalls 004 and 005.

All observations relating to the implementation of control measures at the Facility (pursuant to Section 3.8 of the SWPPP), including: a description of any discharges occurring at the time of the inspection; any previously unidentified discharges from and/or pollutants at the site; any evidence of, or the potential for, pollutants entering the

drainage system; observations regarding the physical condition of and around all outfalls, including any flow dissipation devices; and evidence of pollutants in discharges and/or the receiving water and any control measures needing maintenance, repairs, or replacement shall be documented in the Quarterly Stormwater Control Inspection Report.

A copy of the Quarterly Stormwater Control Inspection Form is included in Attachment G.

SECTION 6: SWPPP CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

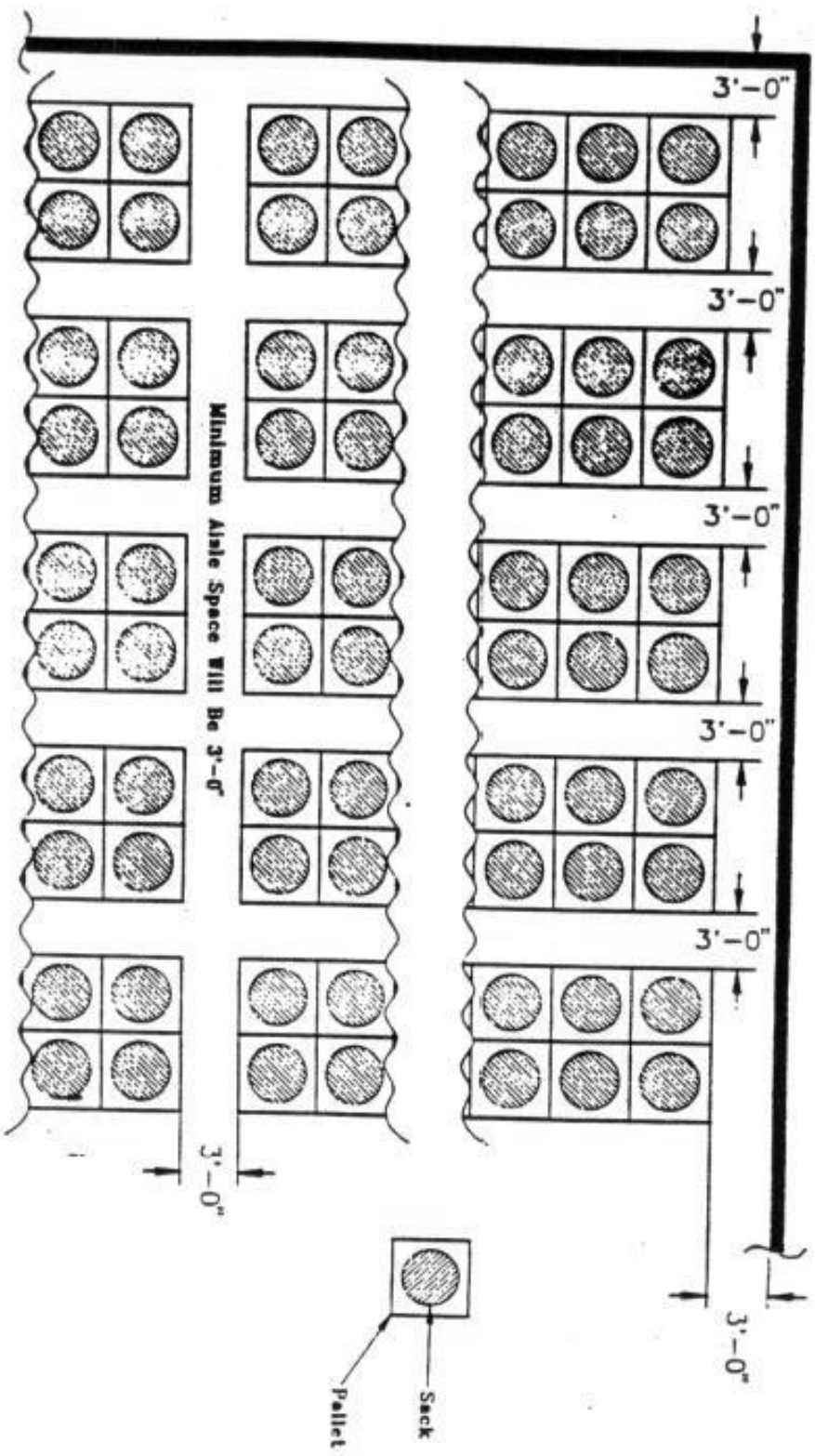
Name: Michael Foster Title: Plant Manager

Signature: _____ Date: _____

SECTION 7: SWPPP MODIFICATIONS

Date	Version
September 2020	Original Version of Current SWPPP

SWPPP ATTACHMENTS



Typical Storage Pattern
For Sacked Lead Concentrate
Drawing Not To Scale

Appendix E – AZR Closure Areas

AREA 1 – Railcar Unloading System

Components Include:

- Railcar Enclosure
- Conveying Pipelines
- Operator's Booth
- Unloading Hopper (Bin)
- #5 Silo
- Screw Conveyor Systems
- Camwall Conveyor
- Conveyor Enclosures
- Vacuum Cleaning Unit
- Fugitive Dust Collectors
- Miscellaneous Appurtenant/Ancillary Structures/Systems

AREA 2 – Pneumatic Truck Receiving System

Components Include:

- Truck Shelter/Containment Area
- Conveying Pipelines
- Receiving Silos
- Bin Vent Bagrooms
- Screw Conveyors
- Conveyor Enclosures
- Bin Feeders
- Slide Gates
- Intervent Lines
- Vacuum Cleaning Unit
- Fugitive Dust Collectors
- Miscellaneous Appurtenant/Ancillary Structures/Systems

AREA 3 – First Stage Conditioning System

Components Include:

- Conditioning Enclosure
- West Pug Mill Conditioner (Including Location of Former Pin Mill)
- East Pug Mill Conditioner
- Main Belt Conveyor & Enclosure
- Screw Conveyors
- Conveyor Enclosures
- Location of Former Scale
- Vacuum Cleaning Unit
- Fugitive Dust Collectors
- Miscellaneous Appurtenant/Ancillary Structures/Systems

AREA 4 – Building 608, including accounting for material capable of being processed through Building 608 (worst case scenario needs to account for money to dispose or cost of continuing operations).

Components Include:

- Structure
- Storage Area
- Loading/Storage Hoppers/Bins
- Screw Conveyors
- Belt Conveyors
- Pan Conveyors
- Apron Conveyors
- Conveyor Enclosures
- Truck Wash Station
- Shredder
- Wash Tank
- Fugitive Dust Collectors
- Pelletizers
- Bucket Elevator
- Miscellaneous Appurtenant/Ancillary Structures/Systems

Area 5 – EAF Conditioning Building/"800 Ton Bin"

Components Include:

- Structure
- Kiln Feed Bins
- Belt Conveyors
- Pan Conveyors
- Conveyor Enclosures
- Apron Conveyors
- Vacuum Cleaning Unit
- Miscellaneous Appurtenant/Ancillary Structures/Systems

AREA 6 – EAF Feed/"100 Ton Bin"

Components Include:

- Structure
- Diverter System
- Kiln Feed Bins
- Belt Conveyors
- Pan Conveyors
- Conveyor Enclosures
- Apron Conveyors
- Vacuum Cleaning Unit
- Fugitive Dust Collectors

- Miscellaneous Appurtenant/Ancillary Structures/Systems

AREA 7 – Kiln Feed Conveying System

Components Include:

- Belt Conveyors
- Conveyor Enclosures
- Vacuum Cleaning Unit
- Fugitive Dust Collectors
- Miscellaneous Appurtenant/Ancillary Structures/Systems

AREA 8 – Miscellaneous Appurtenant/Ancillary Structures/Systems

Components include the following structures/systems not specifically related to or addressed in Areas 1 through 7 or 9 through 12:

- Equipment and materials (e.g. samples or reagents) in Sample/Lab Building Used in Connection with Hazardous Waste
- Lime Bunker
- Mobile Material Handling Equipment (Loaders, Sweepers, etc.)
- Truck Entrance Road (the paved roadway starting at the Sample/Lab Building, running in the plant south direction and then curving to the plant east direction, passing the Pneumatic Truck Receiving System and ending at the exit of Truck Wash Building 624)
- Paved and Unpaved Surfaces Adjacent to Areas 1 through 7 and 9 through 12 and impacted by releases of hazardous waste
- Cleanout and decontamination of accumulated hazardous waste from all structural or engineered stormwater and process wastewater control devices (Settling Basins, Catch Basins, Piping, etc.) impacted by runoff from hazardous waste management units subject to the RCRA closure plan that are capable of conveying stormwater to the Aquashicola Creek under the NPDES Permit
- Railways/Rail Lines at EAF Dust and CZO Railcar Transfer Points, as described below:

    - EAF Dust Rail Car Unloading Area – Includes the rails and floor area within the enclosed trestle structure (120 feet long).

    - CZO Rail Car Unloading Area – From a starting point at the eastern end of the unenclosed East Track (approximately 14 feet northeast of the northwest corner of the #9 Fan Room), then extending west along the East Track and parallel North and South Tracks a distance of 350 feet. For the North and South Tracks, the area includes the rails and ground surface from the southern wall of the G&H Building to 9.5 feet south of the southern rail of the South Track. For the East Track, the area includes the rails and ground surface extending 10 feet to the north and south of the rails.

- CZO Loading Area – Includes the rails and floor area within the enclosed structure (70 feet long) located immediately to the east of the East Track described above.

AREA 9 – Kiln System

Components Include:

- Decontamination of Nos. 6, 1, 2, & 5 Kilns – including area around and under kilns
- Dust Catchers
- Bucket Elevators
- Firing Hoods
- Oversize Bunkers
- Quench Pits
- Drag Conveyors
- Screw Conveyors
- Conveyor Enclosures
- IRM & Calcine Bunkers
- Product Collectors for Kilns 1, 2, 5 & 6
- Conveying Pipelines
- Feed Tubes
- Miscellaneous Appurtenant/Ancillary Structures/Systems

AREA 10 – Fugitive Fume Collection

Components Include:

- Dust Collectors
- Fugitive Bagrooms
- Conveyors
- Conveyor Enclosures
- Miscellaneous Appurtenant/Ancillary Structures/Systems

AREA 11 – Crude Zinc Oxide Receiving, Collection, Storage, Handling, and Conditioning

Components Include:

- Structure – G&H Building
- Containment Area
- Conveying Pipelines
- Bin Vent Bagrooms
- Storage Silos
- Conditioning Bins
- Belt Conveyors
- Screw Conveyors
- Conveyor Enclosures
- Diverter System
- Pin Mixers
- Vacuum Cleaning Unit

- Fugitive Dust Collectors
- Miscellaneous Appurtenant/Ancillary Structures/Systems

AREA 12 – Metal Chloride "Lead Concentrate" Collection, Storage, Handling, and Shipping
Components Include:

- Dust Collectors
- Screw Conveyors
- Conveying Pipelines
- Conveyor Enclosures
- Collection Bins
- Storage Silo/Bin
- Densifier
- Sack Loading System
- Sack Storage Building & Packhouse (Building 616/676)
- Storage Buildings
  - "Cathedral" – Building 864
  - "Barium" – Building 710
  - "Warehouse" Building 603/604
  - "Powders" – Building 611
  - "Lithopone" – Building 719
  - Containment Areas
  - Miscellaneous Appurtenant/Ancillary Structures/Systems