

PUBLIC NOTICE
NOTICE OF INTENT TO ISSUE VARIANCE

This notice is issued to inform the public that the Georgia Environmental Protection Division (“EPD”) intends to issue a variance, pursuant to its authority under the Georgia Hazardous Waste Management Act, O.C.G.A. § 12-8-60, *et seq.* (“HWMA”) and the Georgia Rules for Hazardous Waste Management, Ga. Comp. R. and Regs. 391-3-11-.01 through 391-3-11-.19, to Ascend Elements, Inc. located in Covington, Georgia. Based on the information submitted, EPD believes the proposed variance complies with the HWMA and related rules.

The facility is proposing to receive, store, and process end-of-life, off-specification, and recalled lithium-ion batteries to reclaim the valuable metals contained in them. The reclaimed metals will be sold to lithium-ion battery manufacturers for production of new batteries. This variance will enable the facility to operate as a “verified reclamation facility,” as defined in applicable law, without a RCRA Part B permit. The conditions associated with the variance will ensure that those materials are safely stored, handled, and legitimately recycled.

The application for this variance is included at the end of this public notice. It also is available for review during regular business hours at the following EPD office:

Georgia Environmental Protection Division
Land Protection Branch
Hazardous Waste Management Program
2 Martin Luther King, Jr. Drive SE
East Tower, Suite 1058
Atlanta, Georgia 30334

The contact person for questions regarding this variance or the public participation process is Holly Nelson, Program Manager, 470-604-9530.

Before EPD makes its final decision whether to grant or deny the variance request, comments on the proposed variance or additional submissions are welcome. Comments must be received by December 3, 2022. EPD invites comments during the public comment period to be made by email at epd.comments@dnr.ga.gov. If you choose to email your comments, please be sure to include the words “Ascend Elements” in the subject line to help ensure that your comments will be forwarded to the correct staff.

Written comments submitted by regular mail should be sent to the following address:

Attn: Holly Nelson, Program Manager
Land Protection Branch
Hazardous Waste Management Program
2 Martin Luther King, Jr. Drive SE
East Tower, Suite 1058
Atlanta, Georgia 30334

All comments received on or before December 3, 2022, will be considered when the final decision to issue or deny the variance is made.

November 1, 2022

Richard E. Dunn
Georgia Environmental Protection Division
Land Protection Branch – Hazardous Waste Management Program
2 Martin Luther King, Jr. Dr. S.E.
Suite 1054, East Tower
Atlanta, Georgia 30334-9000

Subject: **Request for a Variance from Classifying Certain Hazardous
 Secondary Materials as a Solid Waste
 Ascend Elements, Inc. – Covington, Georgia
 GESI Project No. 21001.003**

To Whom It May Concern:

The Ascend Elements, Inc. (Ascend Elements) facility in Covington, Georgia is proposing to receive, store, and process end-of-life, off-specification, and recalled lithium-ion batteries in order to reclaim the valuable metals contained in them. The reclaimed metals will be sold to lithium-ion battery manufacturers for production of new batteries. On behalf of Ascend Elements, we are requesting that the Georgia Environmental Protection Department (EPD) grant a variance from classifying these batteries as a solid waste pursuant to the Georgia Hazardous Waste Management Act (O.C.G.A. § 12-8-60, et seq.) and the Georgia Rules for Hazardous Waste Management (Ga. Comp. R. and Regs. 391-3-11-.01 through 391-3-11-.19).

In accordance with Georgia Rule 391-3-11-.06 and Georgia Rule 391-3-11-.07, which incorporate 40 CFR 260.31(d) (*effective January 13, 2015*) and 40 CFR 261.4(a)(24) (*effective Jan 13, 2015*), the Director of the EPD may grant a solid waste variance request for those materials that are generated and then transferred to a verified reclamation facility for the purpose of reclamation. In accordance with 40 CFR 261.4(a)(24)(v)(B) (*effective January 13, 2015*), a verified reclamation facility is one that has been granted a variance under 40 CFR 260.31(d) or a reclamation facility where the management of the hazardous secondary materials is addressed under a RCRA Part B permit or interim status standards.

Due to the extensive amount of information included in the application forms, time for agency review, and public comment period, a RCRA Part B permit typically requires 12 to 18 months for issuance. Since the facility is poised to begin operations that would require a solid waste variance or RCRA Part B permit by the end of 2022, coverage under a RCRA Part B permit would create a substantial hardship on the facility by preventing this timeline to be achieved. Therefore, through this document, Ascend Elements is requesting to be considered a verified reclamation facility and be granted a solid waste variance under 40 CFR 260.31(d) (*effective January 13, 2015*). Upon issuance of the variance, Ascend Elements understands that it will not be required to obtain a permit for storage of a hazardous secondary material.

Georgia EPD's decision will be based on six criteria outlined in 40 CFR 260.31(d)(1) through (6). The documentation provided herein details how the Ascend Elements facility will meet each of the criteria and ensure that reclamation of the hazardous secondary material will not result in an increased risk to human health and the environment.

Should you need further information or have questions on the enclosed, please contact me at (770) 919-9552, ext. 5664.

Sincerely,
GLOBAL ENVIRONMENTAL SOLUTIONS, INC.



Kimberly S. Schappaugh
Senior Project Manager



Brian L. Goldman, P.E.
Environmental Engineer

Cc: Ed Gaughan – Ascend Elements, Inc; Covington, GA

Request for a Variance from
Classifying Certain Hazardous
Secondary Materials as a Solid
Waste

for

ASCEND ELEMENTS, INC.

9176 Industrial Drive NE
Covington, Georgia 30014

Prepared by:

Global Environmental Solutions, Inc.

Marietta, Georgia

October 2022

GESI Project No. 21001.003

TABLE OF CONTENTS

1.0 INTRODUCTION.....	1
1.1 Background.....	1
1.2 Hazardous Waste Batteries.....	2
1.3 Variance Request Contents.....	3
2.0 FACILITY DESCRIPTION.....	4
2.1 Facility Location.....	4
2.2 Process Descriptions.....	4
3.0 LEGITIMATE RECYCLING.....	6
4.0 FINANCIAL ASSURANCE.....	11
4.1 Cost Estimate.....	11
4.2 Financial Assurance.....	12
4.3 Liability.....	12
5.0 FORMAL ENFORCEMENT ACTIONS.....	13
6.0 EMERGENCY PREPAREDNESS AND RESPONSE.....	14
7.0 MANAGEMENT OF RESIDUALS.....	15
7.1 Air Emissions.....	15
7.2 Wastewater.....	15
7.3 Solids.....	15
8.0 RISKS FROM UNPERMITTED RELEASES.....	17
8.1 Proximity to Population Centers.....	17
8.2 Potential Runoff and Release to Soil and Groundwater.....	17
8.3 Windblown Dust.....	18
8.4 Fugitive Air Emissions.....	18
8.5 Catastrophic Unit Failures.....	20
8.6 Potential Cumulative Risks from Nearby Potential Stressors.....	21
9.0 CONCLUSIONS.....	24

LIST OF FIGURES

Figure 1	Site Aerial Image
Figure 2	Wet Shredding Process Flow Diagram
Figure 3	Dry Shredding Process Flow Diagram
Figure 4	Metals Recovery Process Flow Diagram

LIST OF APPENDICES

- Appendix A Financial Assurance Documentation
- Appendix B Emergency Preparedness and Response Plan

1.0 INTRODUCTION

Ascend Elements, Inc. (Ascend Elements) proposes to operate a lithium-ion battery recycling facility in Covington, Georgia. End-of-life, off-specification, recalled batteries, and/or battery scrap will be mechanically and chemically processed in order to produce high purity lithium phosphate, cobalt sulfate, and nickel sulfate. Ascend Elements intends to sell these products to battery manufacturers for use as raw materials in the production of rechargeable batteries.

1.1 Background

In order to ease the management burden and encourage more recycling of common hazardous wastes, EPA developed a streamlined management program for certain hazardous wastes, known as universal wastes. Among the listed universal wastes are hazardous waste batteries. Under the universal waste regulations, facilities that store and reclaim universal waste batteries must obtain a permit for the storage of universal (hazardous) waste. Ascend Elements contends that it will not be storing a hazardous waste. Instead, Ascend Elements is merely purchasing a raw material for the purposes of reclaiming a valuable material.

The hazardous waste regulations allow for certain materials to be excluded from the definition of a solid waste, and thus excluded from the definition of a hazardous waste. One such exclusion is provided in 40 CFR 261.4(a)(24) for a hazardous secondary material that is generated and then transferred to a verified reclamation facility for the purpose of reclamation. A verified reclamation facility is one that has been granted a variance under 40 CFR 260.31(d), has a RCRA Part B permit, or meets interim status standards that address the management of the hazardous secondary materials.

Through this document, Ascend Elements is requesting to be considered a verified reclamation facility and be granted a variance under 40 CFR 260.31(d). Upon issuance of the variance, Ascend Elements understands that it will not be required to obtain a permit for storage of a hazardous secondary material. For the purposes of this request, the hazardous secondary material refers to a lithium-ion battery that meets the definition of a battery in 40 CFR 273.9.

Other battery-related materials, such as battery scrap and batteries that never contained electrolyte are not covered in this request, since they are not hazardous secondary materials. See Section 1.2 for further discussion.

1.2 Hazardous Waste Batteries

Waste batteries have been widely considered to be hazardous waste, because they exhibit a hazardous characteristic. For instance, a nickel-cadmium battery would be hazardous due to its cadmium content. A lead-acid battery would be hazardous due to its lead content. Ascend Elements intends to recycle only lithium-ion batteries, specifically nickel, manganese, and cobalt (NMC) lithium-ion batteries. A NMC lithium-ion battery uses a nickel, manganese, and cobalt compound as its cathode and graphite as its anode. None of these components would exhibit a hazardous characteristic. What may make a waste NMC lithium-ion battery potentially hazardous is its electrolyte, lithium hexafluorophosphate, and the electrolyte's solvent, a mixture of carbonate esters, such as dimethyl carbonate, diethyl carbonate, and propylene carbonate. Overcharged, overheated, and damaged lithium-ion batteries have the potential to catch fire. In addition, the electrolyte solvent is also flammable (flashpoint less than 140 degrees Fahrenheit). As such, the batteries may be considered a D001 ignitable waste when disposed. Hexafluorophosphate is highly reactive with water and can produce toxic fumes of hydrogen fluoride. Therefore, a waste lithium-ion battery may also be considered a D003 reactive waste. Lithium-ion batteries that do not contain the electrolyte or the solvent would not be hazardous, because the other components of the battery would not exhibit a hazardous characteristic.

For clarification, it should be noted that NMC lithium-ion batteries are not the same as lithium metal batteries. Lithium metal batteries use lithium as the anode, and the lithium is in metal form (i.e., pure lithium foil) as opposed to a lithium salt. Pure lithium is highly reactive with water. It has one electron in its outer shell and readily wants to give it up. The lithium in lithium hexafluorophosphate is a less reactive compound, because it no longer has an electron to share. Its outer shell resembles that of a noble gas, which is a more stable electron configuration. As a result, lithium-ion batteries have different reactive qualities from lithium

metal batteries. Ascend Elements will not be recycling lithium metal batteries.

The facility will receive NMC lithium-ion batteries in two general forms - wet batteries and dry batteries. Wet batteries will be those that contain electrolyte. Dry batteries will be those that do not contain electrolyte. Dry batteries may consist of whole batteries in which electrolyte and solvent were never placed; or they may simply be battery scrap. Since dry batteries will not contain electrolyte or solvent, they will not exhibit a hazardous characteristic. As such, Ascend Elements believes that dry batteries should not be included in the Variance Request. The shredding line for dry batteries is also not included in the Variance Request.

1.3 Variance Request Contents

This variance request contains following:

- Section 2.0 provides facility information and process descriptions.
- Section 3.0 demonstrates that the reclamation process is legitimate pursuant to 40 CFR 260.43.
- Section 4.0 discusses how the facility will satisfy the financial assurance condition in 40 CFR 261.4(a)(24)(vi)(F).
- Section 5.0 discusses any formal enforcement actions in the previous three years that the facility may be subject to.
- Section 6.0 discusses how the facility will meet the emergency preparedness and response requirements under 40 CFR 261 Subpart M.
- Section 7.0 describes the residuals generated during the reclamation process and how they will be managed.
- Section 8.0 discusses how the facility will mitigate potential risks to the proximate populations from unpermitted releases of the stored batteries.

2.0 FACILITY DESCRIPTION

2.1 Facility Location

The Ascend Elements facility will be located in Newton County, Georgia at:

9176 Industrial Drive NE
Covington, Georgia 30014

A Site Location Map is provided as Figure 1. The area in which the facility is located is zoned light industrial, which is consistent with this type of operation. There is no residential housing adjacent to the site.

2.2 Process Descriptions

Ascend Elements will process battery materials and spent batteries from Honda, General Motors, LG, and SK Battery America primarily. The battery feedstock for this operation will be delivered via truck, unloaded, sorted, and stored in the warehouse section before processing. Batteries that contain electrolyte (wet batteries) will be transferred to the Wet Shredding line, where they will first be discharged to ensure safe handling. Afterwards they will be fed through a series of mechanical and magnetic processes (e.g., disassembly, crushing, screening, magnetic separation, sieving) that will separate and sort the battery's components into plastic/metallic shells, anode foils, cathode foils, and anode/cathode material (black mass). The organic electrolyte solvent will also be recovered in the Wet Shredding line by using electrically heated dryers and a condenser. This process will be conducted in sealed, dust tight, and atmosphere-controlled machines. Battery scrap and batteries that do not contain electrolyte (dry batteries) will be transferred to the Dry Shredding line. The processing of dry batteries will be similar to wet batteries, except that discharging and electrolyte recovery will not be involved. The facility will start up the Dry Shredding line first, followed by the Wet Shredding line.

Recovered metal and plastic will be sold to scrap recyclers. Industrial uses for the recovered solvent are being explored. The black mass will be transferred to the Metals Recovery process for further processing or it may be transferred to a future Ascend Elements facility.

In the Metals Recovery process, the black mass will be subjected to a series of leaching, precipitation, and extraction processes using inorganic acids. This will convert the metal oxides into metal sulfates and phosphates, which will then be packaged and sold to lithium-ion battery manufacturers. The Metals Recovery process will also produce graphite and aluminum hydroxide as byproduct streams that will be sold for further processing. A wastewater treatment plant will be used to concentrate and recover sodium sulfate, a mixture of magnesium, iron, calcium, and copper hydroxides, and manganese/copper sludge. These byproducts will be sold for further reclamation. Sodium chloride, calcium fluoride, and oil residue will also be produced from the wastewater treatment plant; however, these streams will be managed as non-hazardous solid wastes.

With the exception of several storage tanks and chemical unloading, activities will be conducted indoors.

Process flow diagrams for the Wet Shredding line, Dry Shredding line (provided as a courtesy), and Metals Recovery process are provided in Figures 2, 3, and 4.

3.0 LEGITIMATE RECYCLING

40 CFR 260.43 provides the requirements for demonstrating that a hazardous secondary material is recycled legitimately. Since Georgia Hazardous Waste Regulations do not include any reference to the May 2018 Response to Vacatur of Certain Provisions of the Definition of Solid Waste (DSW), below are the requirements as promulgated in the 2015 DSW Rule.

The requirements are numbered and represented in standard type. Our responses are italicized. Based on our answers below, it is our opinion that the recovery of the cathode metals meets the requirements of legitimate recycling.

1. Legitimate recycling must involve a hazardous secondary material that provides a useful contribution to the recycling process or to a product or intermediate of the recycling process. The hazardous secondary material provides a useful contribution if it:
 - (i) Contributes valuable ingredients to a product or intermediate; or
 - (ii) Replaces a catalyst or carrier in the recycling process; or
 - (iii) Is the source of a valuable constituent recovered in the recycling process; or
 - (iv) Is recovered or regenerated by the recycling process; or
 - (v) Is used as an effective substitute for a commercial product.

The cathode of the lithium-ion batteries (LIB) contains oxides of lithium, cobalt, manganese, and nickel. These metals, particularly cobalt and nickel, are the most expensive components of a LIB. Their concentrations are high and often exceed those in natural ore. Ascend Elements' process will reclaim the lithium, cobalt, and nickel and produce cathode active materials for use in the LIB manufacturing industry. Recovering these elements from end-of-life LIBs will not only provide additional sources for new LIB cathode feedstock and avoid the need for new mineral extraction, it may also provide the industry with an improved product. New studies indicate that recycled cathode powders perform better than powders generated from newly mined minerals. Based on these factors, the hazardous secondary material provides a source of a valuable constituent recovered in the recycling process.

2. The recycling process must produce a valuable product or intermediate. The product or intermediate is valuable if it is:
 - (i) Sold to a third party; or

- (ii) Used by the recycler or the generator as an effective substitute for a commercial product or as an ingredient or intermediate in an industrial process.

The reclaimed cathode powders will be sold to LIB manufacturers for production of new LIBs. Current buyers of the cathode materials are Traxys and Glencore. Other potential buyers include Honda, General Motors, LG, and SK Battery America, as well as chemical distributors such as Targray and Hanwha.

Buyers for the recovered metals include Oconee Metal Recovery and Waste Management. Recovered plastics will be purchased by Brightmark. The graphite will be sold to Ardleigh Minerals Inc. for reclamation, or it will be upgraded to battery grade graphite at a future Ascend Elements facility (location to be determined). The aluminum hydroxide, mixed metal hydroxides (magnesium, iron, calcium, and copper), and manganese/copper sludge will be sold to Interco for further reclamation. The sodium sulfate will be sold to WestRock and/or International Paper.

We are currently identifying buyers for our sodium chloride stream. The sodium chloride will be managed and disposed as non-hazardous solid waste until a buyer is secured.

Ascend Elements believes that its recovered solvent has significant value, and we are diligently exploring industrial uses and buyers. One such application is as a potential industrial cleaning solvent. We are also working with two separate chemical companies to develop processes and methods to return the mixed electrolyte stream or each separated component chemical back into the battery supply chain. Ascend Elements hopes to lead the LIB recycling industry in its attempt to find greener uses for the recovered solvent other than the common practice of using recovered solvents as fuel value. Until alternative uses are finalized, the recovered solvent will be managed as hazardous waste and shipped off-site for fuel blending at a facility that is permitted for this activity. At the appropriate time, Ascend Elements will notify Georgia EPD that it has become a large quantity generator (LQG), and the facility will comply with the LQG and other applicable requirements specified in 391-3-11 of the Georgia Rules and Regulations.

3. The generator and the recycler must manage the hazardous secondary material as a valuable commodity when it is under their control. Where there is an analogous raw material, the hazardous secondary material must be managed, at a minimum, in a manner consistent with the management of the raw material or in an equally protective manner. Where there is no analogous raw material, the hazardous secondary material must be contained. Hazardous secondary materials that are released to the environment and are not recovered immediately are discarded.

The spent lithium-ion batteries are similar to new lithium-ion batteries in that they contain the same components and possess the same hazards as new batteries. Storage of the spent lithium-ion batteries will be consistent with how manufacturers store new batteries. Batteries will be stored indoors. Large batteries will be stored on pallets, while smaller batteries will be contained in boxes, bags, or other containers. Ample aisle space will be provided in the storage area so that access to the area will not be impeded. Releases from the batteries will be promptly cleaned up. The residue and spill clean-up materials will be placed in a proper waste container and sealed. Proper hazardous waste (RCRA) labels and DOT labels, as applicable, will be placed on the waste container prior to storage, transportation, and disposal.

4. The product of the recycling process must be comparable to a legitimate product or intermediate:
 - (i) Where there is an analogous product or intermediate, the product of the recycling process is comparable to a legitimate product or intermediate if:
 - A. The product of the recycling process does not exhibit a hazardous characteristic (as defined in part 261 subpart C) that analogous products do not exhibit, and
 - B. The concentrations of any hazardous constituents found in appendix VIII of part 261 of this chapter that are in the product or intermediate are at levels that are comparable to or lower than those found in analogous products or at levels that meet widely-recognized commodity standards and specifications, in the case where the commodity standards and specifications include levels that specifically address those hazardous constituents.
 - (ii) Where there is no analogous product, the product of the recycling process is comparable to a legitimate product or intermediate if:
 - A. The product of the recycling process is a commodity that meets widely recognized commodity standards and specifications (e.g., commodity specification grades for common metals), or
 - B. The hazardous secondary materials being recycled are returned to the original process or processes from which they were generated to be reused (e.g., closed loop recycling).
 - (iii) If the product of the recycling process has levels of hazardous constituents that are not comparable to or unable to be compared to a legitimate product or intermediate per paragraph (4)(i) or (ii) of this section, the recycling still may be shown to be legitimate, if it meets the following specified requirements. The person performing the recycling must conduct the necessary assessment

and prepare documentation showing why the recycling is, in fact, still legitimate. The recycling can be shown to be legitimate based on lack of exposure from toxics in the product, lack of the bioavailability of the toxics in the product, or other relevant considerations which show that the recycled product does not contain levels of hazardous constituents that pose a significant human health or environmental risk. The documentation must include a certification statement that the recycling is legitimate and must be maintained on-site for three years after the recycling operation has ceased. The person performing the recycling must notify the Regional Administrator of this activity using EPA Form 8700-12.

Ascend Elements will produce cobalt sulfate and nickel sulfate that will adhere to battery grade standards. As such, analogous products are those that also adhere to these standards. There is currently no battery grade standard for lithium phosphate; therefore, analogous products will be those sold in commerce as high purity lithium phosphate. Below is a discussion of our products, the product standards, and a comparison of the 40 CFR 261 Appendix VIII (Appendix VIII) constituents in our products versus analogous products.

Cobalt Sulfate Heptahydrate – standard GB/T 26523 – 2011

The Appendix VIII constituents referenced in this standard are nickel, lead, cadmium, chromium, mercury, and arsenic. Residual nickel and chromium in our product will be less than the standard of 0.005 percent, each. Our cobalt sulfate heptahydrate will not contain lead, cadmium, mercury, arsenic, or other Appendix VIII constituents. Our product will not exhibit any hazardous characteristic.

Nickel Sulfate Hexahydrate – standard GB/T 26524-2011

The Appendix VIII constituents referenced in this standard are nickel, lead, cadmium, and mercury. Residual chromium in our product will be less than the standard of 0.005 percent. Nickel will be 22 percent or greater, as specified by the standard. Ascend Element's nickel sulfate hexahydrate will not contain lead, cadmium, mercury, or other Appendix VIII constituents. Our product will not exhibit any hazardous characteristic.

Lithium Phosphate

The Appendix VIII constituents that may be found in our lithium phosphate are chromium and nickel. Chromium will be below detection levels and nickel will be less than 0.05

4.0 FINANCIAL ASSURANCE

Per 40 CFR 260.31(d)(2), the reclamation facility must satisfy the financial assurance condition in 40 CFR 261.4(a)(24)(vi)(F) which references the requirements in 40 CFR 261 Subpart H. The financial assurance documentation discussed below is provided in Appendix A.

4.1 Cost Estimate

A detailed written estimate, in current dollars, has been provided of the cost of disposing of any hazardous secondary material, and the potential cost of closing the facility if it were considered a treatment, storage, and disposal facility. The closure cost estimate is based on final closure at a point when the closure would be most expensive. All estimates are based on third-party costs for closing the facility at its full capacity.

Ascend Elements will revise the closure cost estimate when any of the following are applicable:

- Within 60 days prior to the anniversary of date of the establishment of the financial instruments used to comply with 40 CFR 261.143;
- Within 30 days after a change in the facility's operating plan or design that would increase the costs of conducting the activities covered under this section; or
- No later than 60 days after an unexpected event which increases the cost of conducting the activities covered under this section.

When either of the above occur, the costs will be adjusted for inflation either by recalculating the cost estimate in current dollars, or by using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product as published by the United States Department of Commerce in its Survey of Current Business. The inflation factor will be the result of dividing the latest published annual Deflator by the Deflator for the previous year. The first adjustment will be made by multiplying the cost estimates by the inflation factor. The subsequent adjustments are made by multiplying the latest adjusted estimate by the latest inflation factor.

Within 60 days of an increase in the cost estimate, appropriate financial assurance documentation will be submitted to cover the additional costs. Ascend Elements will keep a copy of the latest

closure plan and cost estimate, including annual inflation adjustments, at the facility during its operating years.

4.2 Financial Assurance

To satisfy this requirement, the facility has procured an irrevocable standby letter of credit which will provide a guarantee that funds will be available to cover the cost of closure. The letter of credit is issued for one year and the expiration date will automatically be extended for another year, unless the issuing institution of the letter of credit notifies Georgia EPD and Ascend Elements at least 120 days prior to the expiration date of the decision not to extend the expiration date. A standby trust must be established in order to provide a source to deposit and manage the funds. The facility is currently in the process of obtaining the standby trust. Ascend Elements understands that operations under this Variance Request may not begin until the standby trust is in place and the trust agreement is approved by Georgia EPD.

4.3 Liability

Coverage for bodily injury and property damage to third parties caused by sudden accidental occurrences has been satisfied through an insurance policy. The facility will maintain liability coverage for sudden accidental occurrences in the amount of at least \$1 million per occurrence with an annual aggregate of at least \$2 million, exclusive of legal defense costs. The facility is currently in the process of obtaining the policy. The insurance policy will be amended by a certificate of insurance and worded as specified by 40 CFR 261.151(i) and Georgia Air Regulation 391-3-11-.05. The insurance policy will be issued by an insurer who is eligible to provide insurance as an excess or surplus lines insurer in one or more States, including the state of Georgia. Ascend Elements understands that operations under this Variance Request may not begin until the insurance policy and certificate of insurance are in place and approved by Georgia EPD.

5.0 FORMAL ENFORCEMENT ACTIONS

The reclamation facility must not be subject to a formal enforcement action in the previous three years and not be classified as a significant non-complier under RCRA Subtitle C, or must provide credible evidence that the facility will manage the hazardous secondary materials properly.

The Ascend Elements facility is currently in compliance with local, state, and federal regulations. No enforcement actions have been taken against the facility.

6.0 EMERGENCY PREPAREDNESS AND RESPONSE

The reclamation facility must have the equipment and trained personnel needed to safely manage the hazardous secondary material and must meet emergency preparedness and response requirements under 40 CFR 261 Subpart M.

The facility has drafted an Emergency Preparedness and Response Plan based on current conditions and personnel. As the facility develops, the Plan will be amended as necessary. A full copy of the current Plan is attached in Appendix B.

7.0 MANAGEMENT OF RESIDUALS

Residuals generated during the reclamation process include air emissions, wastewater, and solids. See Figures 2 through 4 for locations in the processes where residuals are generated.

7.1 Air Emissions

Ascend Elements will install a wet scrubber and regenerative thermal oxidizer (RTO) for its Wet Shredding process and one or more wet scrubbers for controlling acid emitted from the Metals Recovery process and inorganic acid storage tanks. The RTO will be designed to operate with at least 99 percent destruction efficiency of organics. The wet scrubbers on the Wet Shredding and Metals Recovery processes will be designed to remove at least 98 percent and 96 percent, respectively, of the acid fumes generated. Some particulate matter will also be removed by the wet scrubber on the wet shredding process. Dust collectors will be operated to recover valuable metals from solids handling operations. Filter recovery efficiencies will be at least 99.5 percent. Ascend Elements has submitted a State Implementation Plan (SIP) air permit application to Georgia EPD in order to construct and operate its facility.

7.2 Wastewater

Wastewater generated from the facility's processes will include wastewater from the Metals Recovery process. A wastewater treatment system is under design that will concentrate and remove non-hazardous salts for resale or off-site disposal. Other process and utility wastes will be discharged to the City of Covington Georgia Water Reclamation Facility (WRF) including blowdown from the package boiler, wet scrubbers, cooling tower, city water purification system, and salt concentrate condensate recovery system. Ascend Elements will be submitting a discharge permit application to the Covington WRF.

7.3 Solids

From the shredding processes, the facility will recover metals and plastics. Buyers for the recovered metals include Oconee Metal Recovery and Waste Management. Buyers for the recovered plastic include Brightmark. Some plastics from the wet and dry shredding process

will not be recyclable and will be disposed as non-hazardous solid waste. The facility is exploring buyers for its recovered electrolyte solvent (see discussion in Section 3.0). Should a buyer not be secured, the electrolyte solvent will be managed as a hazardous waste. It will be shipped offsite for fuel blending at a facility that is permitted for this activity.

Residual solids from the Metals Recovery process include graphite and aluminum hydroxide. The facility will also operate a wastewater treatment unit that will generate sodium chloride, sodium sulfate, a mixture of magnesium, iron, calcium, and copper hydroxides, manganese/copper sludge, calcium fluoride, and oil residue. The graphite will be sold to Ardleigh Minerals Inc. for reclamation, or it will be upgraded to battery grade graphite at a future Ascend Elements facility. The aluminum hydroxide, mixed metal hydroxides (magnesium, calcium, copper, and iron), and manganese/copper sludge will be sold to Interco for further reclamation. The sodium sulfate will be sold to WestRock and/or International Paper. The calcium fluoride and oil residue will be non-hazardous solid wastes. We are currently identifying buyers for our sodium chloride stream. The sodium chloride will be managed and disposed as non-hazardous solid waste until a buyer is secured.

Other solid wastes that may be generated at the facility include corrosive lab wastes (hydrochloric, nitric, and/or sulfuric acids and/or sodium hydroxide mixed with small amounts of cathode material), debris (filter paper, spill pads, and paper towels) contaminated with sodium hydroxide or lithium hydroxide, residues from cleaning personal protective equipment and containers of the aforementioned acids and bases, and recovered spill material from leaking batteries. These wastes will be managed and shipped off-site for disposal as hazardous wastes in accordance with RCRA and DOT regulations. The facility will also generate municipal solid waste (paper, paperboard, glass, food waste, etc.) which will be managed and shipped off-site in accordance with the local, state, and DOT regulations

8.0 RISKS FROM UNPERMITTED RELEASES

Under normal circumstances, risks from the storage of batteries to the surrounding areas is not high since storage is conducted indoors and intact batteries have no emissions. Reclamation processes will also be conducted indoors and processes will be equipped with recovery and control devices. Ascend Elements will also employ preventative measures to reduce the likelihood of risk to surrounding populations from inadvertent releases that may occur from the storage and reclamation of these batteries. Potential unpermitted release of material through precipitation runoff, release to soil and groundwater, windblown dust, fugitive air emissions, or from catastrophic failure of process units will be minimized through preventive measures and countermeasure controls.

8.1 Proximity to Population Centers

The Ascend Elements facility is located in Covington, Georgia just south of Interstate I-20 in an area that is zoned for light industrial. The facility is surrounded by other light industrial facilities to the southwest, east, and southeast up to approximately one-half mile or greater. North of the facility, beginning approximately one-quarter mile, are commercial businesses. The nearest residential areas are approximately one-half mile to the south southwest and southeast of the facility.

8.2 Potential Runoff and Release to Soil and Groundwater

Battery unloading and storage activities will be conducted within the warehouse. Batteries will be stored away from outside doors and on racks. The facility will be operated 24 hours a day, which will allow for prompt identification and response to leaking batteries, if applicable. Warehouse floors will be impervious to battery fluids and there are no floor drains in the warehouse. Should a release (leak) from a battery occur, the area will be cordoned off, and the release will be promptly cleaned up using absorbent materials from a nearby spill kit. The residue and clean-up materials will be placed in a proper waste container and sealed. Proper hazardous waste (RCRA) labels and DOT labels, as applicable, will be placed on the waste container prior to storage, transportation, and disposal.

For activities that are conducted outdoors, such as unloading and storage of raw materials, the facility will implement the following good engineering practices to prevent potential release to soil and groundwater:

- Provide proper containment for tanks and containers.
- Tanks and containment will be periodically inspected (at least quarterly) for overall integrity and for the presence of leaks/spills.
- Monitor loading/unloading operations, including monitoring vessel liquid levels to prevent overflow.
- Spill response equipment is provided in accessible locations.
- Spills and leaks will be promptly contained and cleaned up using absorbent materials, booms, and/or other applicable methods.
- Prior to draining or pumping out storm water from a containment area, it will be visually inspected to ensure there are no obvious signs of contamination (e.g., oil sheen, discoloration, etc.). Water with signs of spills will be properly disposed.

8.3 Windblown Dust

There will be no industrial activities conducted outside that are expected to generate windblown dust. Roads into the facility and parking areas are paved. There will be no sources of windblown dust from the storage of batteries. Solids handling operations will be conducted indoors, and those that may generate dust will utilize dust collectors for recovery of material. Residual solids that may be generated from indoor unloading and storage activities (e.g., absorbents used to contain material from leaking batteries) will be promptly recovered and stored in a closed container.

8.4 Fugitive Air Emissions

As stated above, there are no emissions from intact batteries; however, damage to the cell and extreme temperatures may cause a release of gases from a battery. Studies indicate that temperatures required to cause a thermal event do not naturally occur and are generally a result of physical damage to the cell and/or electro-chemical abuse from over-charging or over-

discharging the cell. Cell charging will not be conducted at the facility and battery discharging, when applicable, will be conducted in a controlled environment (i.e., salt bath) to keep the cell temperature low. Also, the risk of damage to a battery during unloading and storage will be minimal. Pallets are unloaded one at a time and the load is carried low to the ground. Aisle space between racks is sufficient for unimpeded forklift movement. It is therefore unlikely that fugitive air emissions from battery storage will be released to the environment and pose a risk to offsite receptors.

As described in Section 2.2, battery reclamation will be conducted via the Dry Shredding line, Wet Shredding line, and Metals Recovery process. The facility has submitted an air permit application to Georgia EPD to construct and operate its facility. The risk from unpermitted emissions, such as from process upsets, from these processes would be low for the following reasons:

- Active process controls will be installed to prevent upsets. These controls include the following:
 - High level alarms on each storage tank (except process water) to prevent overfilling;
 - High temperature alarm on the hydrogen peroxide tank to warn of potential chemical decomposition;
 - Automatic shutdown in the event of loss of power or loss of cooling on the Wet Shredding line; and
 - Automatic stream controls (for high and low setpoints) on the Metals Recovery process.
- Storage tanks will be installed with conservation vents and will utilize nitrogen blankets to prevent excess emissions. Storage tanks will also be located within containment areas and tank groups of similar chemicals (e.g, acids) will be located in different containment areas from incompatible materials (e.g., bases) to prevent accidental mixing.
- Solids handling activities will be conducted indoors; therefore, emissions from an upset would be captured indoors. Also, there is a general area ventilation system that will vent to a dust collector.

- Control equipment and recovery devices such as the regenerative thermal oxidizer, wet scrubber(s), and dust collectors will be monitored for various parameters (e.g., pH, pressure drop, temperature) to ensure that they are working effectively and efficiently.

8.5 Catastrophic Unit Failures

To prevent catastrophic unit failures, Ascend Elements will install the following process controls:

- High level alarms on each storage tank (except process water) to prevent overfilling;
- High temperature alarm on the hydrogen peroxide tank to warn of potential chemical decomposition;
- Automatic shutdown in the event of loss of power or loss of cooling on the Wet Shredding line; and
- Automatic stream controls (for high and low setpoints) on the Metals Recovery process.

Ascend Elements will also implement a mechanical integrity program for the inspection of the process equipment and process controls. The program will adhere to industry standards to ensure that critical process equipment is designed and installed correctly and that it is operated and maintained properly.

External visual inspections will be completed for storage tanks. The frequency of these inspections and tests will be based on industry standard. The detailed inspections and tests include:

- Detailed external visual inspections.
- Internal visual inspections.
- Non-destructive testing such as ultrasonic thickness testing.

Should a storage tank fail, the contents will be captured within a containment structure (e.g., dike) large enough to contain the entire tank contents. Storage tanks of similar chemicals (e.g., acids) will be located in different containment areas from incompatible materials (e.g., bases) to prevent accidental mixing.

In the unlikely event that a fire does occur, the facility is equipped with fire suppression systems and has developed a contingency plan to address an occurrence. See Section 6 for details.

8.6 Potential Cumulative Risks from Nearby Potential Stressors

Ascend Elements recognizes that there is the potential for cumulative risks from nearby potential stressors. Below is a list of industrial facilities that have been identified using various sources, such as the EPA Enforcement and Compliance History Online (ECHO), aerial maps, and Google, that are within a half-mile radius of the Ascend Elements facility and may contribute potential environmental stressors. Following that is a discussion of potential cumulative risks between the Ascend Elements facility and the potential environmental stressors identified.

Nearby Potential Stressors

Potential environmental stressors, such as toxic air emissions and releases to land and/or water, were identified via a review of air permits available from Georgia EPD's online air permit search engine, air and water permit applications available from Georgia EPD's electronic online system GEOS, and Toxic Release Inventory (TRI) reports from EPA's TRI search engine for these facilities. Due to the ubiquitous use of diesel fuel for emergency generators and natural gas and propane for comfort heating and other heating sources (e.g., boilers and process heaters) in residential, commercial, and industrial settings, and taking into account that toxic emissions from combustion of these fuels are very low, natural gas, propane, and diesel fuel combustion sources were not considered in this evaluation for nearby stressors.

- The Pactiv facility, located at 8170 Alcovy Road, produces food packaging products from polystyrene foam. Per the facility's air permit, the majority of emissions are volatile organic compounds (VOCs); however, some styrene, which is considered a carcinogen, is emitted. Therefore, this facility may contribute a potential environmental stressor.
- The SRG Global Automotive facility, located at 10116 Industrial Boulevard, primarily manufactures extruded parts, where metal is formed in a roll mill and coated with PVC plastic using an adhesive. There are no paint booths on site. Per the facility's air permit, the facility may emit toluene diisocyanates which are listed as "reasonably anticipated to be human carcinogens". The 2020 TRI report indicated that the facility emits nickel to the air. Nickel and nickel compounds are considered carcinogenic. Based on this data, this facility may contribute potential environmental stressors.

- The Becton, Dickinson, and Company (BD) facility, located at 8195 Industrial Boulevard in Covington, utilizes ethylene oxide for the sterilization of medical equipment. Ethylene oxide is carcinogenic to humans by the inhalation route of exposure. Therefore, this facility may contribute a potential environmental stressor.

Potential Cumulative Risks

Based on the list above, we have identified three facilities that may emit a toxin and therefore contribute potential environmental stressors. Chemicals that may be emitted from the Ascend Elements facility that are considered or anticipated to be toxic include a compound of nickel, manganese, and cobalt oxide (e.g., the battery cathode), nickel sulfate hexahydrate, cobalt sulfate heptahydrate, hydrofluoric acid, and hydrochloric acid.

Since the purpose of the facility is to produce nickel sulfate hexahydrate and cobalt sulfate heptahydrate from the battery cathode, product recovery, including operating the facility in a manner that minimizes releases of the valuable material, is important. Therefore, Ascend Elements will conduct solids handling operations indoors and utilize dust recovery devices for those operations that may produce dusts. Inspections of the dust collectors will be conducted regularly and a unit will be immediately shut down if found to be operating in a manner that is not protective of human health.

Emissions of acids will be controlled using wet scrubbers. Operating parameters such as pH, flowrate, and pressure drop will be monitored to ensure they are operating optimally. Ascend Elements will install process controls, such as manual and automatic shutdowns, to promptly mitigate unpermitted releases to the air.

Unpermitted releases to waterways should not occur. Activities conducted outside, such as storage and unloading will be contained in dikes, to prevent potential run-off from stormwater, and regular inspections of tanks and dikes will be conducted. In addition, the facility will not be discharging wastewater to local waterways. The facility will pretreat its wastewater prior to discharging to the City of Covington Georgia Water Reclamation Facility.

Given these factors, Ascend Elements believes that the addition of its facility to the area will result in a negligible cumulative risk to the nearby populations.

Based on the safeguards discussed in the above subsections, Ascend Elements contends that risks from unpermitted releases and potential cumulative risks from the storage and reclamation of batteries is very low, since measures will be in place to prevent and significantly mitigate unpermitted releases, a mechanical integrity program will be implemented to ensure proper equipment operation, control and recovery devices will be utilized and monitored, and emissions meet the ambient air quality standards.

9.0 CONCLUSIONS

As demonstrated in this request and the attached supplemental documents, the storage of the batteries and reclamation of the valuable cathode materials meet all the criteria required to be granted a variance. Approval of this request will encourage the reclamation of LIB cathode materials by providing recyclers flexibility in the management of the stored batteries. It will also encourage reclamation of LIB cathode materials in a manner that does not result in an increased risk to human health and the environment from discarded LIBs. For these reasons, Ascend Elements respectfully requests that Georgia EPD approve this variance.

FIGURES



Image Source: Google Earth Version 7.3.4.8248

GESI



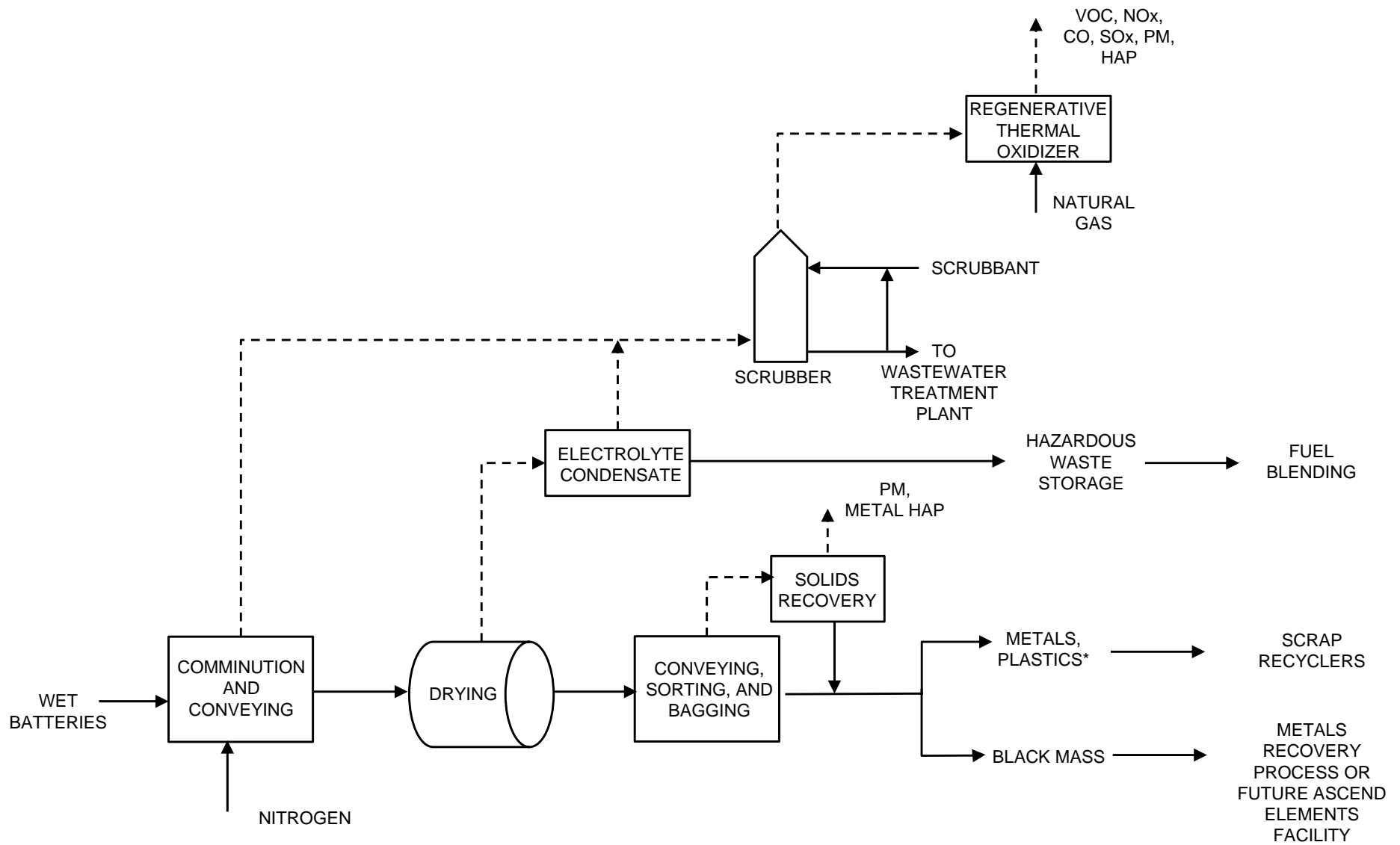
810 franklin ct
suite a
marietta, ga 30067
tel 770 919 9552
fax 770 919 9529

ASCEND ELEMENTS, INC.
COVINGTON, GEORGA

SITE AERIAL IMAGE

PROJECT NO. 21001.03

FIGURE 1



* A very small percentage of recovered plastics will be disposed as solid waste.

GESI



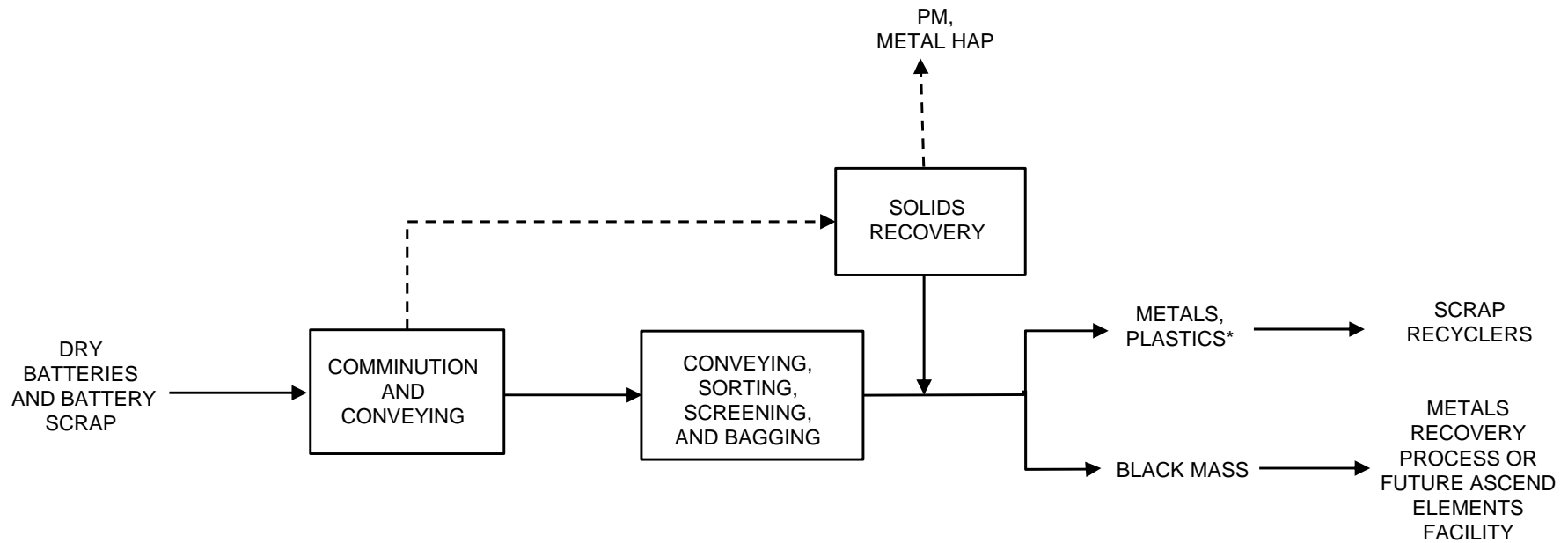
810 franklin ct
suite a
marietta, ga 30067
tel 770 919 9552
fax 770 919 9529

ASCEND ELEMENTS, INC.
COVINGTON, GEORGA

WET SHREDDING
PROCESS FLOW DIAGRAM

PROJECT NO. 21001.03

FIGURE 2



* A very small percentage of recovered plastics will be disposed as solid waste.

GESI



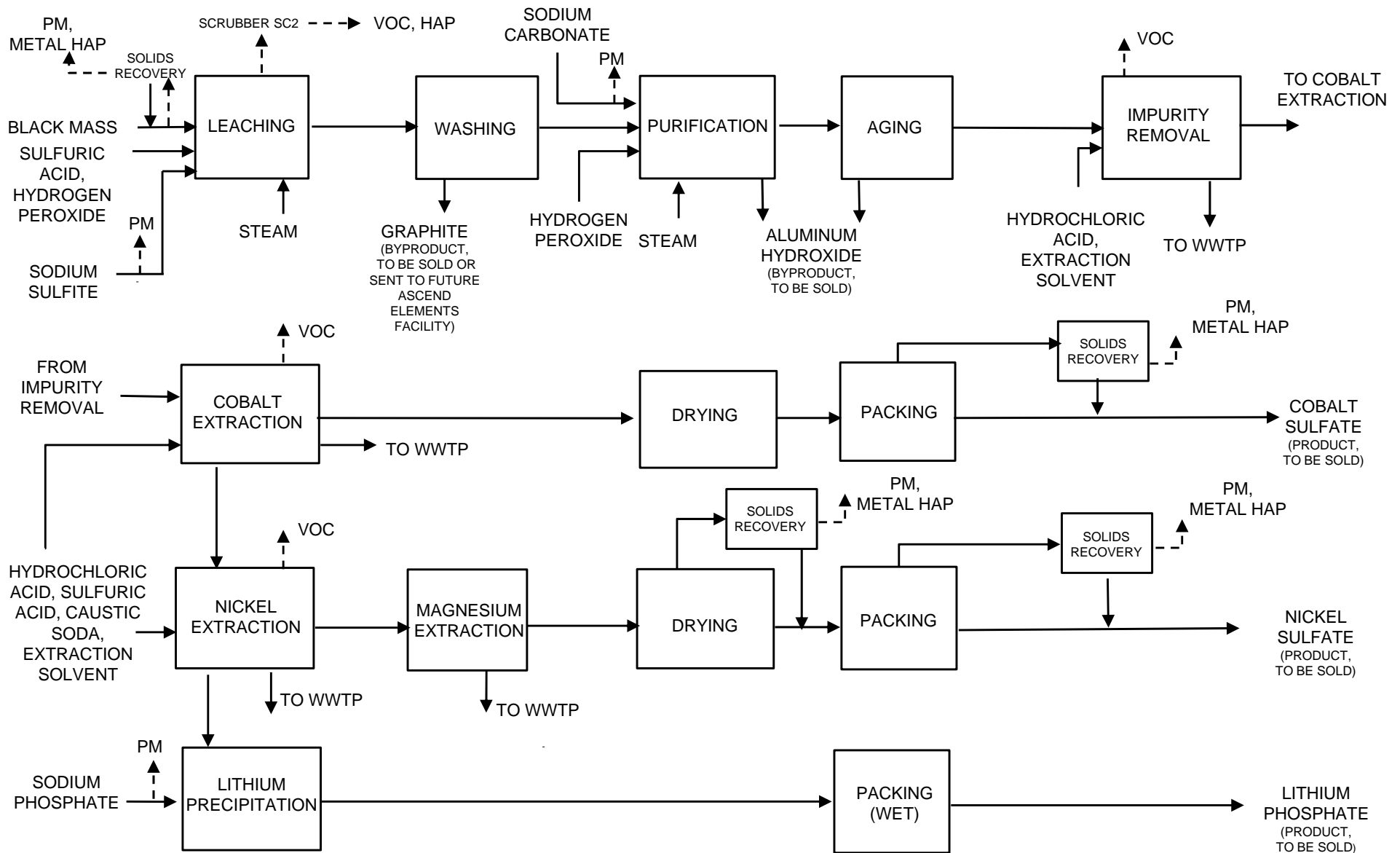
810 franklin ct
 suite a
 marietta, ga 30067
 tel 770 919 9552
 fax 770 919 9529

ASCEND ELEMENTS, INC.
 COVINGTON, GEORGA

DRY SHREDDING
 PROCESS FLOW DIAGRAM

PROJECT NO. 21001.03

FIGURE 3



NOTES:

Except for nickel sulfate and cobalt sulfate, emissions from solids handling and solids recovery operations are vented indoors.

Initially, only black mass from the Dry Shredding line will be processed. Until black mass from Wet Shredding line is processed, scrubber SC2 might not be installed, since VOC and HAP emissions from processing dry black mass are negligible.

WWTP byproducts include sodium sulfate, mixed metal hydroxides, and manganese/copper sludge. The byproducts will be sold for further processing. WWTP waste streams include sodium chloride, calcium fluoride, and oil residue.



810 franklin ct
suite a
marietta, ga 30067
tel 770 919 9552
fax 770 919 9529

ASCEND ELEMENTS, INC.
COVINGTON, GEORGIA

METALS RECOVERY
PROCESS FLOW DIAGRAM

APPENDIX A

Financial Assurance Documentation

September 22, 2022

Richard E. Dunn, Georgia EPD Director
Georgia Department of Natural Resources
Environmental Protection Division
2 Martin Luther King Jr. Drive, SE
Suite 1456, East Tower
Atlanta, Georgia 30334

Subject: **Letter of Credit for Closure Costs under 40 CFR 261.143
Ascend Elements, Inc. – Covington, Georgia**

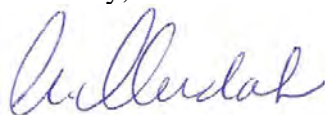
Dear Mr. Dunn,

The Ascend Elements, Inc. facility (Ascend Elements) in Covington, Georgia is requesting to be considered a verified reclamation facility and be granted a variance under 40 CFR 260.31(d). As part of this request, the facility must satisfy certain financial assurance requirements. Please find enclosed a letter of credit which satisfies the financial assurance for closure cost requirements of 40 CFR 261.143. As required by 40 CFR 261.143(c)(4), the following information is provided:

- Letter of Credit number: SVBFS000806
- Issuing Institution: Silicon Valley Bank, 3003 Tasman Drive, Santa Clara, California 95054
- Issuance Date: June 14, 2022
- Facility name: Ascend Elements, Inc.
- Facility address: 9176 Industrial Drive NE, Covington, Georgia 30014
- Facility EPA Identification Number: GAR000094110
- Amount of funds for closure costs of the above facility assured by the letter of credit: US\$ 2,437,000.00 (Two million four hundred thirty seven thousand and 00/100 U.S. dollars)

If you have any questions, please contact me at aaberdale@ascendelements.com, or our environmental consultant Kim Schappaugh of Global Environmental Solutions, Inc. at (770) 919-9552, ext. 5664.

Sincerely,



Andrew Aberdale, CFO

Enclosure



IRREVOCABLE STANDBY LETTER OF CREDIT NO. SVBFS000806

DATE: JUNE 14, 2022

ISSUING BANK:
SILICON VALLEY BANK
3003 TASMAN DRIVE
2ND FLOOR, MAIL SORT HF210
SANTA CLARA, CALIFORNIA 95054

BENEFICIARY:
GEORGIA EPD DIRECTOR
GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION
2 MARTIN LUTHER KING JR. DRIVE, SE
SUITE 1456, EAST TOWER
ATLANTA, GEORGIA 30334

APPLICANT:
ASCEND ELEMENTS, INC.
133 FLANDERS ROAD
WESTBOROUGH, MA 01581

AMOUNT: US\$2,437,000.00 (TWO MILLION FOUR HUNDRED THIRTY SEVEN THOUSAND AND 00/100 U.S. DOLLARS)

EXPIRATION DATE: JUNE 14, 2023

PLACE OF EXPIRATION: ISSUING BANK'S COUNTERS AT ITS ABOVE ADDRESS

DEAR SIR/MADAM:

WE HEREBY ESTABLISH OUR IRREVOCABLE STANDBY LETTER OF CREDIT NO. SVBFS000806 IN YOUR FAVOR, IN THE EVENT THAT THE HAZARDOUS SECONDARY MATERIALS AT THE COVERED RECLAMATION OR INTERMEDIARY FACILITY (IES) NO LONGER MEET THE CONDITIONS OF THE EXCLUSION UNDER 40 CFR 261.4(A)(24), AT THE REQUEST AND FOR THE ACCOUNT OF ASCEND ELEMENTS, INC. 133 FLANDERS ROAD, WESTBOROUGH, MA 01581 UP TO THE AGGREGATE AMOUNT OF US\$2,437,000.00 (TWO MILLION FOUR HUNDRED THIRTY SEVEN THOUSAND AND 00/100 U.S. DOLLARS), AVAILABLE UPON PRESENTATION OF:

(1) YOUR SIGHT DRAFT, BEARING REFERENCE TO THIS LETTER OF CREDIT NO. SVBFS000806.

AND

(2) YOUR SIGNED STATEMENT READING AS FOLLOWS: "I CERTIFY THAT THE AMOUNT OF THE DRAFT IS PAYABLE PURSUANT TO REGULATIONS ISSUED UNDER AUTHORITY OF THE RESOURCE CONSERVATION AND RECOVERY ACT OF 1976 AS AMENDED.

THIS LETTER OF CREDIT IS EFFECTIVE AS OF JUNE 14, 2022 AND SHALL EXPIRE ON JUNE 14, 2023, BUT SUCH EXPIRATION DATE SHALL BE AUTOMATICALLY EXTENDED FOR A PERIOD OF ONE YEAR ON JUNE 14, 2023 AND ON EACH SUCCESSIVE EXPIRATION

3003 Tasman Drive, Santa Clara, CA 95054



IRREVOCABLE STANDBY LETTER OF CREDIT NO. SVBFS000806

DATE, UNLESS, AT LEAST 120 DAYS BEFORE THE CURRENT EXPIRATION DATE, WE NOTIFY BOTH YOU AND APPLICANT BY CERTIFIED MAIL OR OVERNIGHT COURIER SUCH AS UPS THAT WE HAVE DECIDED NOT TO EXTEND THIS LETTER OF CREDIT BEYOND THE CURRENT EXPIRATION DATE. IN THE EVENT YOU ARE SO NOTIFIED, ANY UNUSED PORTION OF THE CREDIT SHALL BE AVAILABLE UPON PRESENTATION OF YOUR SIGHT DRAFT FOR 120 DAYS AFTER THE DATE OF RECEIPT BY BOTH YOU AND ASCEND ELEMENTS, INC. AS SHOWN ON THE SIGNED RECEIPT OR COURIER DELIVERY CONFIRMATION.


WE CERTIFY THAT THE WORDING OF THIS LETTER OF CREDIT IS IDENTICAL TO THE WORDING SPECIFIED IN 40 CFR 261.151(C) AS SUCH REGULATION WERE CONSTITUTED ON THE DATE SHOWN IMMEDIATELY BELOW.

WHENEVER THIS LETTER OF CREDIT IS DRAWN ON UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS CREDIT, WE SHALL DULY HONOR SUCH DRAFT UPON PRESENTATION TO US, AND WE SHALL DEPOSIT THE AMOUNT OF THE DRAFT DIRECTLY INTO THE STANDBY TRUST FUND OF ASCEND ELEMENTS, INC. IN ACCORDANCE WITH YOUR INSTRUCTIONS.

THIS LETTER OF CREDIT IS SUBJECT TO THE UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS UCP600.

IF YOU HAVE ANY QUESTIONS REGARDING THIS TRANSACTION, PLEASE CONTACT AUREA BALENBIN AT ABALENBIN@SVB.COM, QUOTING OUR LETTER OF CREDIT NO. SVBFS000806.

SILICON VALLEY BANK


AUTHORIZED SIGNATURE

Linda Wu

UPS CampusShip: View/Print Label

- 1. Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
- 2. Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.
- 3. GETTING YOUR SHIPMENT TO UPS**
Customers with a Daily Pickup
 Your driver will pickup your shipment(s) as usual.

Customers without a Daily Pickup


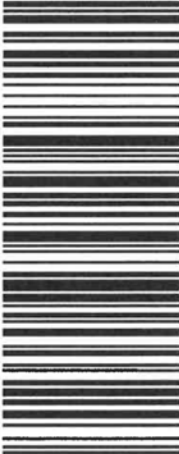


Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
 Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
 Hand the package to any UPS driver in your area.

UPS Access Point™
 THE UPS STORE
 181 E TASMAN DR
 SAN JOSE ,CA 95134

UPS Access Point™
 CARQUEST STORE 4312
 400 E TRIMBLE RD
 SAN JOSE ,CA 95131

UPS Access Point™
 HANA'S BOTTLE SHOP
 3149 EL CAMINO REAL
 SANTA CLARA ,CA 95051

FOLD HERE

<p style="text-align: right;">LTR</p> <p style="text-align: right;">1 OF 1</p> <p>SHIP TO: GEORGIA DEPT. OF NATURAL RESOURCES GEORGIA EPD DIRECTOR SUITE 1456, EAST TOWER 2 MARTIN LUTHER KING JR. DRIVE, SE ENVIRONMENTAL PROTECTION DIVISION ATLANTA GA 30334</p> <p>AUREA BALENBIN 408-654-3405 SILICON VALLEY BANK 3003 TASMAN DRIVE SANTA CLARA, CA 95054</p>	<p style="font-size: 2em;">GA 303 9-02</p> 	<p style="font-size: 2em;">UPS NEXT DAY AIR</p> <p style="font-size: 3em;">1</p> <p>TRACKING #: 1Z E94 183 01 9892 3905</p> 	<p style="text-align: right;"></p> <p style="text-align: right;">BILLING: P/P</p> <p>Department code required: CB007CL Reference 2: SVBF500806 <small>US \$28.00. W/NTNVS0 25.0A 06/2022*</small></p> <p style="text-align: right;">CB007CL</p> 
--	---	---	--

APPENDIX B

Emergency Preparedness and Response Plan

Emergency Preparedness and
Response Plan for Management
of Excluded Hazardous Secondary
Materials

for

Ascend Elements, Inc.

9176 Industrial Drive NE
Covington, Georgia 30014

Prepared by:

Global Environmental Solutions, Inc.

Marietta, Georgia

July 2022

GESI Project No. 21001.003

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Design of Plan	1
1.2 Plan Distribution	2
1.3 Review of and Amendments to the Plan	2
2.0 FACILITY DESCRIPTION	4
2.1 Site Location	4
2.2 Operations and Materials Handled	4
3.0 MATERIAL HANDLING PRACTICES	5
3.1 Storage	5
3.2 Transfer and Unloading	6
4.0 PERSONNEL RESPONSIBILITIES	7
4.1 Emergency Coordinators	7
4.2 Primary Emergency Coordinator Responsibilities	7
4.3 Emergency Coordinator Responsibilities	8
4.4 Department Managers and Plant Supervisors	8
4.5 Site Employees	8
4.6 On-Site Responders	9
5.0 ARRANGEMENTS WITH OUTSIDE RESPONDERS	10
6.0 EMERGENCY AND POLLUTION PREVENTION SYSTEMS	11
6.1 Fire Response Equipment	11
6.2 Spill Control Equipment	12
6.3 First Aid Equipment	12
6.4 Communication and Alarm Systems	13
6.5 Inspection of Equipment	14
6.6 Spill Response Contractor Capabilities	14
7.0 EVACUATION PLAN	15
8.0 EMERGENCY RESPONSE PROCEDURES	16
8.1 Chemical Release/Spill	16
8.2 Fire or Explosion	17
8.3 Emergency Coordinator Duties During an Emergency	17
8.4 Post-Emergency Operations and Decontamination	18

9.0 NOTIFICATION DETERMINATION	19
9.1 Initial Notification	19
9.2 Follow-up Written Report	19
9.3 Post-Emergency Critique	20
10.0 TRAINING	21
10.1 Hazardous Secondary Material Training.....	21
10.2 All Employees	22
10.3 Frequency	22
10.4 Documentation	22
11.0 INSPECTIONS	23

LIST OF FIGURES

Figure 1	Site Location Map
Figure 2	Site Layout Map
Figure 3A	Site Evacuation Routes – Process Area
Figure 3B	Site Evacuation Routes – Warehouse
Figure 3C	Site Evacuation Routes – Miscellaneous Area

LIST OF APPENDICES

Appendix A	Arrangements Agreed to by Local Emergency Responders
Appendix B	Internal and External Emergency Contact List
Appendix C	General Emergency Response Guidelines

1.0 INTRODUCTION

Ascend Elements, Inc. (Ascend Elements) operates a lithium-ion battery recycling facility in Covington, Georgia. This Emergency Preparedness and Response Plan (Plan) has been developed to minimize potential hazards to human health and the environment from fires, explosions, or unplanned sudden or non-sudden release of hazardous secondary materials or hazardous secondary material constituents to air, soil, or surface water. This Plan was prepared for the Ascend Elements site in Covington, Georgia to comply with the following:

- Resource Conservation and Recovery Act (RCRA), 40 CFR 261, Subpart M – Emergency Preparedness and Response for Management of Excluded Hazardous Secondary Materials

For the purposes of this Plan, the excluded hazardous secondary material refers to batteries that meet the definition in 40 CFR 273.9¹. Other battery-related materials, such as battery scrap and battery cells that do not meet the definition in 40 CFR 273.9 are not covered in this Plan. The requirements in this Plan are based on the accumulation of greater than 6,000 kilograms of hazardous secondary material.

1.1 Design of Plan

This Plan is designed for use by both plant personnel and outside emergency responders in an actual emergency situation involving hazardous secondary materials (hereinafter referred to as batteries) or their constituents. This plan is designed to assist Ascend Elements to adequately respond to a battery-related release. Additionally, the Plan addresses prevention and contingency provisions to be implemented and maintained by plant personnel. The Plan is divided as follows:

- Section 2: General site and facility information
- Sections 3 through 6: Prevention, preparation, and planning for emergency response
- Sections 7 through 9: Emergency response procedures and notifications
- Sections 10 through 11: Training and inspections

¹ Per 40 CFR 273.9, battery means a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

1.2 Plan Distribution

A copy of the draft Plan to be submitted to Georgia EPD for approval was submitted to the regulatory/response organizations listed below. These organizations have also been invited to tour the site.

Covington Fire Department ² 2101 Pace Street Covington, GA 30014	Covington Police Department 13183 Harland Drive NE Covington, GA 30014
---	--

Piedmont Newton Hospital 5126 Hospital Dr NE Covington, GA 30014	Triumvirate Environmental, Inc. 68 Chamisa Road Covington, GA 30016
--	---

Newton County Emergency
Management Agency
8146 Carlton Trail
Covington, GA 30014

A form documenting their receipt of the Plan and an agreement to provide services will be maintained at the site. Copies of these forms are included in Appendix A. An approved copy of the Plan will be provided to these organizations.

For future amendments to the Plan, a transmittal form, in duplicate, will be submitted to the organizations above with each Plan and amendment.

This Plan must be in possession of, or readily available to the Emergency Coordinators listed on the “Internal Emergency Contact List” located in Appendix B of this Plan. A copy of this Plan is maintained at the facility at all times.

1.3 Review of and Amendments to the Plan

This Plan must be reviewed and amended, if necessary, in accordance with the following:

- The Plan must be reviewed and immediately amended, if necessary, if changes in any of the following occur:

² The Covington County Fire Department is a member of the Georgia Mutual Aid Group and has “incident command” if secondary services are required for emergency response.

- Facility Emergency Coordinators - names, telephone numbers, or responsibilities
 - Facility design, construction, operation, maintenance, or other circumstances which increases the potential for fires, explosions or other releases of hazardous secondary material or changes the response necessary in an emergency
 - Applicable regulations
 - Emergency equipment
-
- The Plan must be reviewed and immediately amended, if necessary, if the Plan fails in an emergency.
 - The Plan must be amended if it is found (either through a site inspection, incident, or other means) that the Plan does not provide, as required by the regulations, adequate prevention and response measures.

2.0 FACILITY DESCRIPTION

2.1 Site Location

The Ascend Elements facility in Covington, Georgia site is located in Newton County, Georgia at:

9176 Industrial Drive NE
Covington, Georgia 30014

A site location map is presented in Figure 1. A site layout map is presented in Figure 2. The site layout map includes the location of storage and handling of hazardous secondary materials.

2.2 Operations and Materials Handled

Ascend Elements reclaims materials from a variety of lithium-ion batteries. The types of batteries received and processed at the facility will vary from small batteries used in phones and laptops to large batteries from electric vehicles. Operations at the facility include receiving the spent batteries by truck, battery unloading, battery storage, battery discharge and/or shredding, mechanical separation, cathode metals recovery, and packaging of products and by-products. Once the batteries enter the discharging or shredding process, they will no longer be considered a hazardous secondary material.

3.0 MATERIAL HANDLING PRACTICES

Good material handling practices will be followed to minimize and/or prevent hazards to human health or the environment from fires, explosions, or unplanned sudden or non-sudden releases of battery-related materials or their constituents to air, soil, or surface water.

3.1 Storage

The following guidelines will be followed when storing batteries:

- Batteries and containers with batteries must be stored in a manner to prevent and contain potential spills, particularly spills that could enter a drain. These practices include storing batteries indoors where there are no floor drains. Batteries are stored in covered IBC containers, supersacks, cardboard boxes with enclosed packing material, and/or enclosed with shrink wrapping on containment pallets.
- Batteries must be stored on an impervious surface (e.g., concrete or pavement without cracks).
- Batteries and containers with batteries should not be stored in high traffic areas, if possible. Batteries will be stored on racks in a designated storage area. The storage area is separated from the process area by a fire-resistant wall constructed of cinder blocks.
- If hazardous waste is generated, proper RCRA and DOT labels will be placed on the waste container prior to storage, transportation, and disposal, as appropriate.
- Incompatible materials (e.g., acids and bases) will not be contained in the same containment areas without proper physical barriers (e.g., separate storage cabinets, separate compartments within the same storage cabinet that have their own spill containment) to prevent mixing. Incompatible materials will not be stored in storage tanks located in the same area.
- Non-hazardous waste must not be mixed with hazardous waste – the resultant mixture may be hazardous waste.
- Unknown chemicals must never be mixed.
- The storage area, handling equipment, and containers must be constructed of materials compatible with the chemical and physical characteristics and weight of the materials stored and handled.

- Containers with batteries must be placed so there is adequate aisle space between the containers to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment into any area of the facility in the event of an emergency and to facilitate inspection of containers. Batteries are stored on racks with enough space between racks for unobstructed movement of forklifts.

3.2 Transfer and Unloading

The following transfer and unloading procedures will be followed:

- Batteries will be unloaded indoors.
- Containers with batteries will be securely closed when not in use. Containers will also be securely closed or sealed during movement of the material.
- Containers with batteries and handling equipment must be handled in a manner that will not damage the integrity of the container. This is very important when using forklifts.
- Containers with batteries will not be transported if a leak is discovered. The containers will be placed on a containment pallet to collect the leaking material which will then be properly disposed (see Section 8.1 for details).
- All spills will be promptly cleaned up. Upon discovery of the spill, the area will be cordoned off using physical barriers (e.g., cones, barricade tape, etc.) or clearly visible signs. Absorbent materials from a nearby spill kit will be used to clean up and remove spills. The residue and spill clean-up materials will be placed in a proper waste container and sealed. Proper hazardous waste (RCRA) labels and DOT labels, as applicable, will be placed on the waste container prior to storage, transportation, and disposal.

Adequate surveillance of the unloading and transfer of batteries must be maintained until the operation is completed in order to provide immediate detection in the event of an incident.

Surveillance activities may include:

- Reviewing the safety requirements of the chemical material by reviewing the safety data sheet (SDS) prior to handling the chemical.
- Noting the location of spill control equipment and checking that the equipment is readily available.
- Maintaining multiple personnel in the unloading area while the batteries are being unloaded.

4.0 PERSONNEL RESPONSIBILITIES

The following personnel will assist the plant Emergency Coordinator in implementing the elements of this Plan. Each person has been assigned a particular area of responsibility.

Training shall be provided to these employees as discussed in Section 10.

4.1 Emergency Coordinators

The Emergency Coordinators for the facility are listed in Appendix B. In the absence of the Primary Emergency Coordinator, an alternate shall be responsible for the Primary Emergency Coordinator duties. **The Primary Emergency Coordinator or an alternate must be on site or on-call at all times.** In this Plan, the Emergency Coordinator (Primary or alternate) who is on-site or on-call is referred to generically as the “Emergency Coordinator.”

4.2 Primary Emergency Coordinator Responsibilities

In addition to the duties outlined in Section 4.3, the Primary Emergency Coordinator is responsible for identifying updates to this Plan; maintaining arrangements with outside responders; testing the emergency response plan on a regular basis; and appointing, training, and directing personnel to perform emergency tasks. The EHS Manager will be responsible for revising this Plan to address identified Plan update needs.

The Primary Emergency Coordinator also serves as the designated person who is accountable for emergency preparedness and prevention. The Primary Emergency Coordinator (along with the Plant Manager) is responsible for incident prevention through ensuring that training, equipment testing, and transmittal of the Plan are completed. Additionally, the Primary Emergency Coordinator responsible for ensuring that best management practices are used in handling and storing hazardous waste.

4.3 Emergency Coordinator Responsibilities

The Emergency Coordinator has the authority to commit the resources needed to carry out this Plan. The Emergency Coordinator is responsible for coordinating all emergency response measures.

The Emergency Coordinator must be thoroughly familiar with the following:

- All aspects of this Plan;
- All operations and activities at the facility;
- The location and characteristics of hazardous secondary materials handled;
- The location of hazardous secondary materials records within the facility (Primary Emergency Coordinator);
- The facility layout.

4.4 Department Managers and Plant Supervisors

In the event of a spill, release, or other emergency, employees will notify their Department Manager or Plant Supervisor. The Plant Supervisors will be trained as First Responders. The Department Managers or Plant Supervisors will be responsible for notifying the Emergency Coordinator of the incident. In the event of an emergency situation requiring immediate assistance, the Department Manager or Plant Supervisor will be notified first and the Department Manager or Plant Supervisor will notify the Emergency Coordinator or the Plant Manager. Department Managers or Plant Supervisors are also responsible for accounting for personnel working in their area in the event of an evacuation and reporting this account to the Emergency Coordinator. They are also responsible for oversight of the incident until the Emergency Coordinator or the Plant Manager arrives at the scene.

4.5 Site Employees

Employees working in areas in which batteries are stored or otherwise handled are the most likely individuals to witness or discover a battery-related release.

Upon discovering or observing a leak, non-incident spill, or other release of a hazardous material, all employees are responsible for notifying their Department Manager or Plant

Supervisor. The Department Manager or Plant Supervisor, in turn, will notify the Emergency Coordinator. Those employees who routinely handle chemicals may absorb, neutralize, or otherwise control and clean-up small spills in their immediate area which are not, considered “emergency response actions”. For emergency releases, employees who have not received specialized training in handling emergency spills will take no action beyond notifying their Department Manager or Plant Supervisor and, if needed, activating the alarm mechanism.

4.6 On-Site Responders

The Plant Supervisors are also on-site responders that are trained to respond to emergency situations. First Responders can assist in responding to emergencies and have the training to:

- Understand risk hazard and risk assessment techniques;
- Know the classification, identification, and verification of known and unknown materials by using field survey instruments and equipment;
- Know how to select and use proper specialized chemical personal protective equipment;
- Perform advance control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available;
- Understand the importance of and implement decontamination procedures.

5.0 ARRANGEMENTS WITH OUTSIDE RESPONDERS

In the event of an incident, the following outside resources can be contacted by the Emergency Coordinator or designee for immediate assistance (see also the “External Emergency Contact List” in Appendix B).

<u>Organization</u>	<u>Situation</u>
Fire Department	Fire or explosion prevention or control required
Police/Sheriff Department	Traffic control or local evacuation necessary
Hospital	Serious injuries to personnel
Local Emergency Management Agency	Assistance is needed in the coordination of an evacuation or cleanup
Spill Response Contractors	Stop, contain, cleanup, and disposal of spill material and associated spill cleanup materials.

These organizations have been provided a draft copy of this Plan and have agreed to provide emergency response services (see Section 1.2 and Appendix A). These organizations will also be provided a copy of the Georgia EPD-approved version of this Plan. As appropriate, arrangements will also be made with the above organizations (either through site visits and/or by providing a copy of this Plan) to familiarize them with the layout of the facility, associated hazards and properties of hazardous secondary materials, places where personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes as well as the types of injuries or illnesses that could result from fires, explosions, or releases at the facility.

Where more than one type of organization (e.g., multiple fire departments, etc.) have been identified as potentially responding to a particular emergency situation, Section 1.2 denotes which of these organizations will serve as the primary emergency organization for responding to the particular situation.

6.0 EMERGENCY AND POLLUTION PREVENTION SYSTEMS

There are several emergency systems available at the facility. As discussed below, appropriate equipment is located in the vicinity of hazardous waste generation and/or storage areas.

6.1 Fire Response Equipment

Fire response equipment is located in the vicinity of hazardous secondary materials storage areas. There are dedicated fire sprinklers in the racks of the battery storage area. The fixed fire protection system includes an emergency fire water pump to ensure water at an adequate volume and pressure to supply fixed water hydrants. Fire equipment at the Ascend Elements facility includes:

<u>Type</u>	<u>Description/Capabilities/Use</u>	<u>Location</u>	<u>Inspection Frequency</u>
Fire extinguisher	Portable, dry chemical, ABC, CO ₂ , or halon fire extinguishers. Use on small fires.	See Figure 2	Monthly
Fixed fire protection system	Fire water pump and fire sprinklers. Use on equipment fires.	Process Area, Warehouse, Storage Tank Farms, Laboratory	Annual and other inspections
Foam System	Foam dispersing system. Use on equipment fires.	Process Area, Warehouse, Storage Tank Farms	Annually
Fire alarm system	Manually and/or automatically activated. Sends a simultaneous signal throughout the site.	Process Area, Warehouse, Storage Tank Farms, Laboratory	Annual and other inspections

6.2 Spill Control Equipment

Spill control equipment is located in the vicinity of hazardous secondary materials storage areas. A detailed inventory of equipment maintained at each location is available from plant management. Equipment maintained at the facility includes:

<u>Type</u>	<u>Description/Capabilities/Use</u>	<u>Location</u>	<u>Inspection Frequency</u>
Spill Kits	Absorbent pads, oil-dry absorbent media, gloves, booms, barricade tape for isolating spill areas, safety glasses. Use for containing and cleaning a spill area.	See Figure 2	Monthly
Other Equipment	Brooms, oil-dry absorbent media, dirt, sand, backhoe, shovels, squeegees. Use for containing and cleaning a spill area.	Spill Kits, Warehouse	Routine inventory checks
Neutralizers	Neutralizing agents. Used to neutralize specific spill materials	Spill Kits	Routine inventory checks
Containment Packaging	Drums, plastic or metal pails, plastic or metal drums, plastic lined roll-offs, tote bins, overpack drums. Used to package recovered spill and associated materials for disposal.	Warehouse	Used daily – no inspection required

6.3 First Aid Equipment

Standard first aid equipment is located near the vicinity of hazardous secondary materials storage areas. Safety data sheets (SDSs) containing emergency first aid information for hazardous materials are located on the company intranet. Hard copies of SDSs can also be obtained from the Plant Supervisors and EHS Manager as well as outside the building for use by external emergency responders. Available first aid equipment includes:

<u>Type</u>	<u>Description/Capabilities/Use</u>	<u>Location</u>	<u>Inspection Frequency</u>
First Aid Kit	Basic first aid supplies.	Warehouse	Monthly visual and inventory check
Burn Kit	Basic supplies. Use for initial burn treatment.	Warehouse	Monthly visual and inventory check
Eyewash/emergency showers	Manual pull eyewash and emergency showers.	See Figure 2	Monthly visual and flow check

6.4 Communication and Alarm Systems

Whenever hazardous secondary materials are being transferred or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device. The equipment/devices listed below enable this immediate access.

<u>Type</u>	<u>Description/Capabilities/Use</u>	<u>Location</u>	<u>Inspection Frequency</u>
Paging system	Site-wide paging system accessed via phone system. Used to provide immediate emergency instruction (voice) to facility personnel.	See location of telephones	Used daily. No inspection required.
Alarm system	Facility-wide fire alarm system. (see Section 6.1).	Process Area, Warehouse, Storage Tank Farms, Laboratory	Annual and other inspections
Telephones	All telephones have access to a direct line outside	Offices, Process Areas, Warehouse, Laboratory	Used daily. No inspection required.

Radios and cell phones	Emergency Coordinators carry cell phones and/or radios.	N/A	Used daily. No inspection required.
------------------------	---	-----	--

6.5 Inspection of Equipment

The EHS Manager, maintenance personnel, and outside contractors are responsible for ensuring that inspection, testing, and maintenance of emergency response equipment specified in this Section are completed to assure proper operation in time of an emergency. The EHS Manager and maintenance personnel will restock depleted items needed on a priority basis. Inspection, testing, and maintenance activities will be documented. Documentation will be maintained by the EHS Manager or will be kept online.

6.6 Spill Response Contractor Capabilities

Spill response contractors can be contacted to provide additional assistance in responding to emergencies. In addition to the same spill response equipment and PPE maintained by Ascend Elements, these contractors can be contacted to provide full-service spill response for hazardous and non-hazardous substances in industrial and commercial settings.

7.0 EVACUATION PLAN

The determination of a need for evacuation will be made based on the type and location of the emergency. The Emergency Coordinator will determine which areas need to be evacuated in an emergency and will inform supervisors in each production area by direct verbal communication or by two-way, hand-held radios or similar devices. If employees are unsure whether to leave and gather at the pre-designated assembly area, they should evacuate anyway until the Emergency Coordinator makes a determination. Employees must evacuate if directed to do so. A representation of the facility-wide evacuation routes and pre-designated assembly areas is included in Figures 3A through 3C. This information will be updated upon completion of the final design of the facility.

When the evacuation command is given:

- Equipment shall be shut down if time permits.
- All employees shall leave the plant by the nearest exit path (see Evacuation Plan Map in Figures 3A through 3C).
- All employees shall report to the assembly area for a head count.
- Stay out of the way of traffic and the responding emergency equipment.
- Department Managers/Plant Supervisors shall take a head count to determine if all employees who report to them are present. Efforts must be coordinated to locate all unaccounted personnel and visitors from the security guard visitor and contractor logs. The results of the head count shall be forwarded to the Primary or Alternate Emergency Coordinator.
- No employees shall leave the assembly areas unless directed to do so or if in danger.
- No employees shall re-enter the building or process area until the “All Clear” signal is given by the Emergency Coordinator.

8.0 EMERGENCY RESPONSE PROCEDURES

General emergency response guidelines are provided in Appendix C of this Plan. Evacuation procedures are discussed in Section 7 of this Plan. Section 9 of this Plan provides details on agency notification requirements.

In the event of an emergency involving a fire, explosion, or release of hazardous secondary materials and hazardous secondary material constituents which could threaten human health or the environment, the provisions of this Plan must be carried out immediately. For all emergencies involving hazardous secondary materials (imminent or actual), the Emergency Coordinator (or his/her designee) must immediately ensure the following is completed:

- Activate internal facility alarms or communication systems where applicable to notify applicable facility personnel (e.g., area specific alarms or site-wide alarms).
- Notify appropriate state or local agencies with designated response roles if their help is needed.

8.1 Chemical Release/Spill

In the event of a chemical release/spill, emergency response procedures should be conducted in accordance with procedures developed by the site. These procedures are summarized on the “Spill Response Guidelines” sheet in Appendix C.

Releases from the batteries will be promptly cleaned up. Upon discovery of the spill, the area will be cordoned off using physical barriers (e.g., cones, barricade tape, etc.) or signs. Absorbent materials from a nearby spill kit will be used to clean up and remove spills. The residue and spill clean-up materials will be placed in a proper waste container and sealed. Proper hazardous waste (RCRA) labels and DOT labels, as applicable, will be placed on the waste container prior to storage, transportation, and disposal.

The Emergency Coordinator will determine whether assistance from an outside response contractor is required to contain a release. Examples of events that may require assistance from

the outside environmental response contractor include:

- Leaks/spills of hazardous secondary materials for which there is not adequate spill response materials available onsite for the amount of material released.
- Leaks/spills of hazardous secondary materials in quantities for which employees do not have the necessary training.
- Leaks/spills of hazardous secondary materials that reach storm water drains or soil.

8.2 Fire or Explosion

In the event of a fire or explosion, emergency response procedures should be conducted in accordance with fire response procedures developed by the site. General guidelines are summarized on the “Fire Response Guidelines” sheet in Appendix C.

8.3 Emergency Coordinator Duties During an Emergency

During an emergency involving hazardous secondary materials and/or hazardous waste, the Emergency Coordinator must:

- Immediately identify the character, exact source, amount, and areal extent of any released materials. This may be done by observation or review of the facility records or manifests and, if necessary, by chemical analysis.
- Assess possible hazards to human health and the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion such as the effects of toxic, irritating, or asphyxiating gases that are generated, hazardous surface water run-off from water or chemical agents used to control fire, and heat-induced explosions.
- The Emergency Coordinator must also take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other batteries at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released material, and removing or isolating batteries.
- If operations are stopped in response to a fire, explosion, or a release, the Emergency Coordinator must monitor for leaks, pressure build-up, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.
- If there has been a release, fire, or explosion that could threaten human health or the environment outside of the facility involving hazardous secondary materials and the

Emergency Coordinator's assessment indicates that an evacuation of local areas may be advisable, the Emergency Coordinator must immediately notify appropriate local authorities and must be available to help appropriate officials decide whether local areas should be evacuated.

- If there has been a release, fire, or explosion that could threaten human health or the environment outside of the facility involving hazardous secondary materials, the Emergency Coordinator must immediately notify government agencies as detailed in Section 9.

8.4 Post-Emergency Operations and Decontamination

Immediately after an emergency involving batteries, the Emergency Coordinator must provide for treating, storing, or disposing of recovered waste from batteries, contaminated soil or surface water, or other waste that results from a release, fire, or explosion. The recovered materials must be handled as a hazardous waste unless the facility is able to demonstrate that the material is not a hazardous waste. The Emergency Coordinator must ensure that, in the affected area(s) of the facility, no material that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed. All resulting wastes will be stored, handled, and disposed in accordance with applicable regulations.

All emergency equipment listed in this Plan must be cleaned and fit for its intended use before operations are resumed. Decontamination procedures for reusable equipment will be included in the site's emergency response/action plans, as applicable. Disposable equipment will be properly disposed, and supplies will be replenished.

9.0 NOTIFICATION DETERMINATION

9.1 Initial Notification

If there has been a release, fire, or explosion that could threaten human health or the environment outside of the facility involving hazardous secondary material (i.e., batteries), the Emergency Coordinator must immediately call the State (Georgia Emergency Management Agency), local emergency planning committee (Newton County Emergency Management Agency), and the National Response Center (NRC). The following information must be provided to the extent known at the time of the notification:

- Name and telephone number of reporter
- Name and address of the facility
- Date, time, and type of incident (e.g., release, fire)
- Name, type, and quantity of hazard waste(s) involved, to the extent known
- The extent of injuries, if any
- Estimated quantity and disposition of recovered materials, if any
- The possible hazards to human health or to the environment outside of the facility.

If the Emergency Coordinator's assessment indicates that an evacuation of local areas may be advisable, the Emergency Coordinator must immediately notify appropriate local authorities and must be available to help appropriate officials decide whether local areas should be evacuated.

9.2 Follow-up Written Report

For releases from batteries that require implementation of this plan, the Emergency Coordinator must submit a written report to the EPA Regional Administrator within 15 days after the incident. The report must include:

- Name, address, and telephone number of the hazardous secondary material generator.
- Name, address, and telephone number of the facility.
- Date, time, and type of incident (e.g., release, fire)
- Name and quantity of material(s) involved
- The extent of injuries, if any

- An assessment of actual or potential hazards to human health or the environment, where this is applicable
- Estimated quantity and disposition of recovered material that resulted from the incident.

This report must also be placed in the facility's operating record.

9.3 Post-Emergency Critique

At the completion of an emergency response action that involves implementation of the emergency response procedures in this Plan, a post-emergency critique, such as an incident investigation, will be conducted to determine the effectiveness of the operation, identify potential deficiencies, and recommend corrective actions as appropriate.

10.0 TRAINING

Training must be provided in the following areas and will include both classroom and on-the-job training. The EHS Manager is responsible for ensuring that employees with responsibilities in these areas receive the required training. Training will be conducted by the EHS Manager or a qualified individual designated by these individuals who is knowledgeable in the hazardous secondary material management procedures and requirements covered in the training.

10.1 Hazardous Secondary Material Training

Personnel responsible for hazardous secondary material handling and related emergency response activities must successfully complete training that teaches them to perform their duties in a manner to ensure the facility's compliance with hazardous secondary material regulations during normal facility operations and emergencies. Hazardous secondary material training may include, as applicable:

- The employee's role and responsibilities during normal facility operations and in responding to an emergency.
- Emergency procedures.
- Emergency response equipment, including usage, inspection, repair, and replacement procedures.
- Communication and alarm systems.
- Response to fire and explosions.

Specific training to be provided to Emergency Coordinators and Plant Supervisors may include (depending on assignment and response specialty):

- Spill response.
- Fire extinguisher use and other fire-fighting procedures.
- Medical response.

For emergency response team members, some of the above training can be provided through OSHA HAZWOPER training.

10.2 All Employees

Additional specific training will be provided to all employees as needed on:

- Instructions on hazardous secondary materials handling with emphasis on specific materials that the employee handles.
- Location and operation of spill control, fire, and safety equipment.
- Personal protective equipment use and maintenance.
- Emergency evacuation plan, including signals and location of exits.

10.3 Frequency

Employees directly involved in hazardous secondary material transportation and storage activities will be trained within six months of their hiring date or assignment to a new position. These employees must also undergo an annual review of topics covered in the initial training. The EHS Manager will determine when annual review of training will be conducted for affected personnel. Employees must not work in unsupervised positions until they have been trained.

10.4 Documentation

Documentation of training will be maintained in the training files at the site. Training records will include:

- Name, job title, and job description of person trained;
- Date of training; and
- Topic of training and an outline of the training syllabus or other indication of course content.

Training documents must be maintained until the facility closes or three years following an employee's departure from the facility.

11.0 INSPECTIONS

The EHS Manager is responsible for ensuring that inspection and testing of emergency response equipment in their respective areas is completed.

The emergency response equipment listed in Section 6.0 will be inspected as indicated in Section 6.0. Restocking of equipment will be on a priority basis. Completed inspection forms will be maintained by the EHS Manager for their respective areas or will be kept online.

Any deficiencies noted in inspections will be corrected as soon as practical.

FIGURES



Image Source: Google Earth Version 7.3.4.8248

GESI



810 franklin ct
suite a
marietta, ga 30067
tel 770 919 9552
fax 770 919 9529

ASCEND ELEMENTS, INC.
COVINGTON, GEORGIA

SITE LOCATION MAP

PROJECT NO. 21001.003

FIGURE 1

FIGURE 2 – SITE LAYOUT MAP



LEGEND

FIRE EXTINGUISHER*

1

BATTERY STORAGE AREA

* LOCATIONS ARE APPROXIMATE

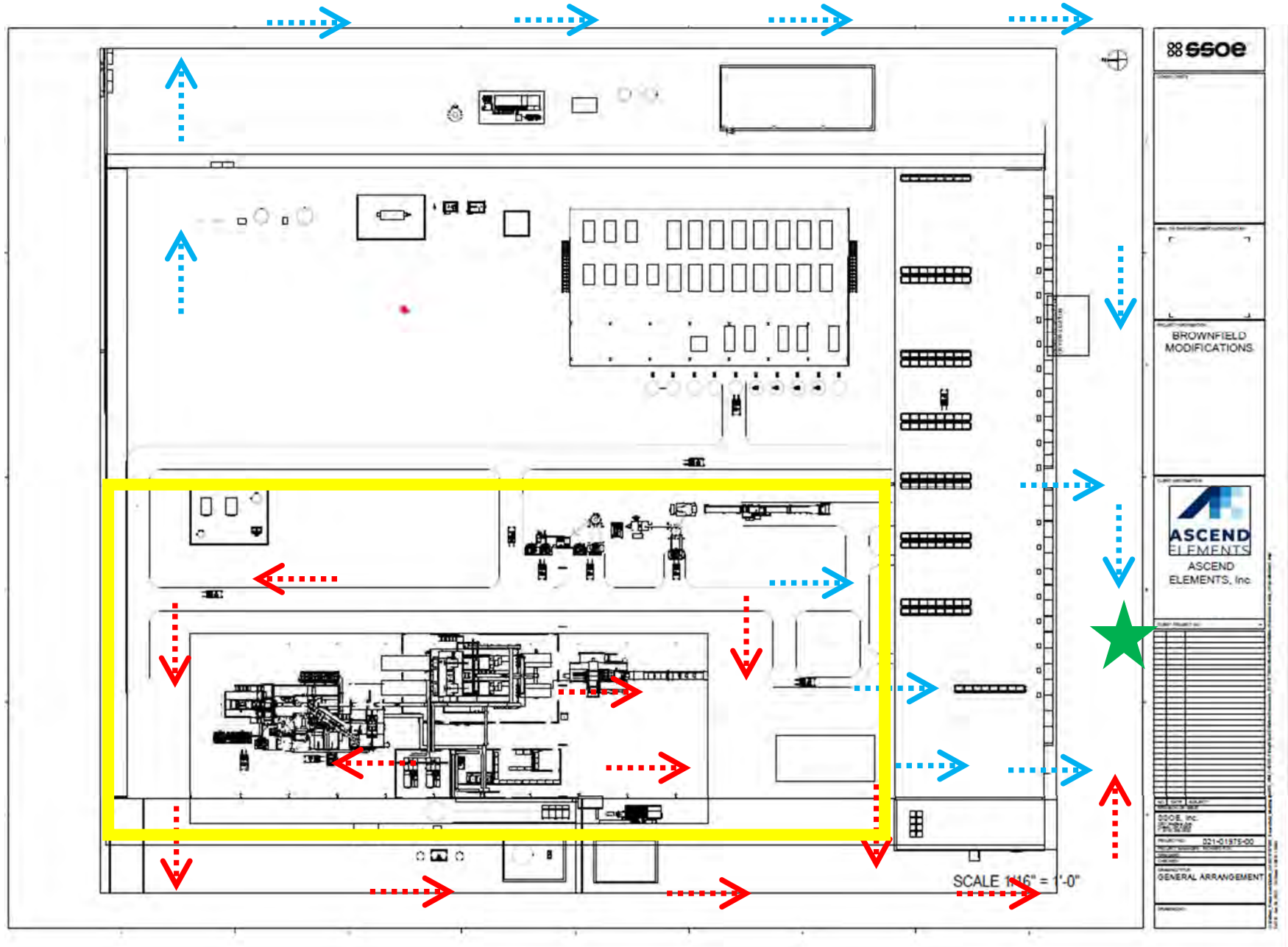
SPILL KIT*

2

BATTERY SORTING AREA



FIGURE 3A – SITE EVACUATION ROUTES – PROCESS AREA



LEGEND

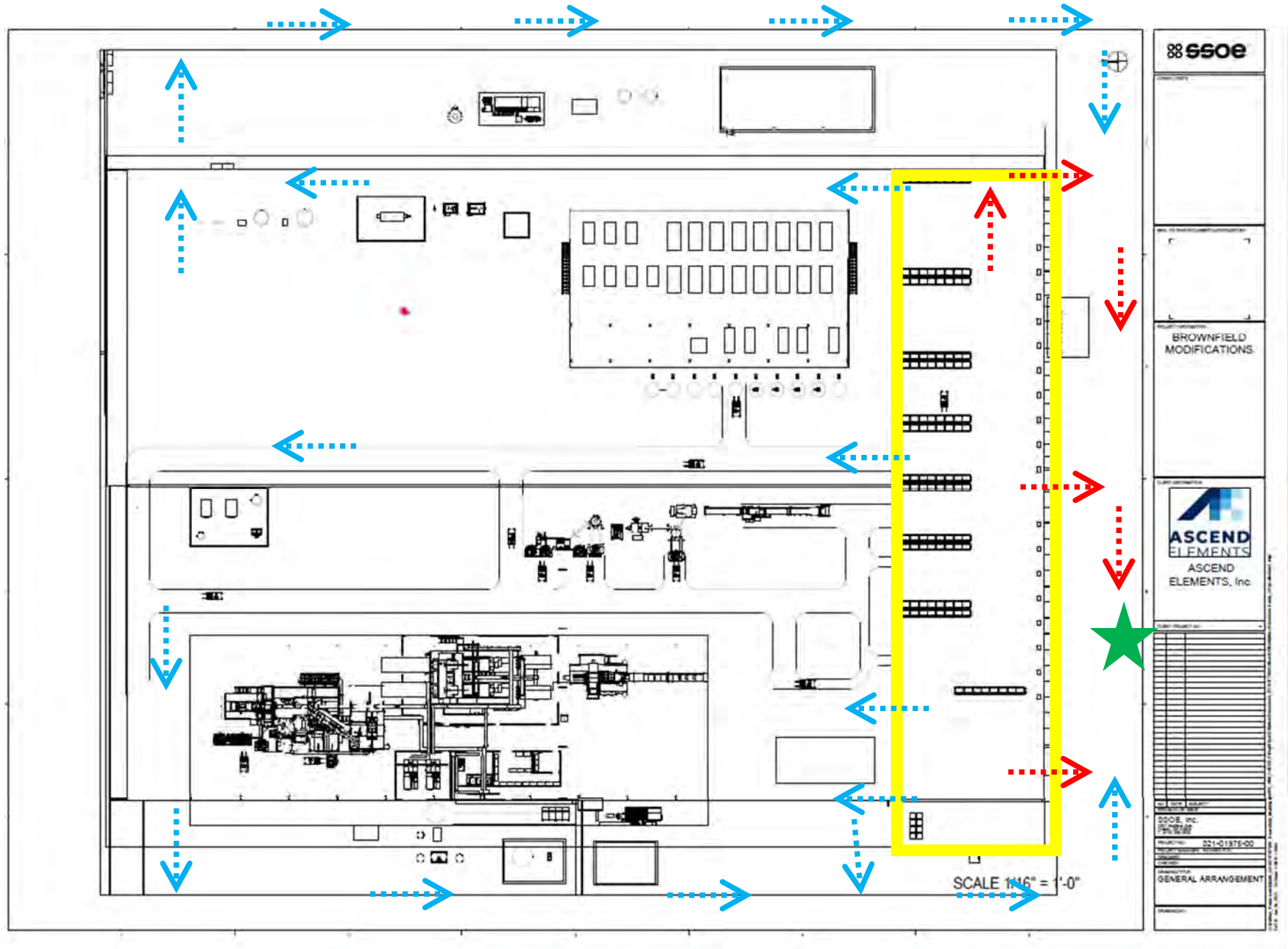
---> PRIMARY EVACUATION ROUTE

□ PROCESS AREA

---> ALTERNATE EVACUATION ROUTE

★ ASSEMBLY POINT

FIGURE 3B – SITE EVACUATION ROUTES - WAREHOUSE



LEGEND

 PRIMARY EVACUATION ROUTE

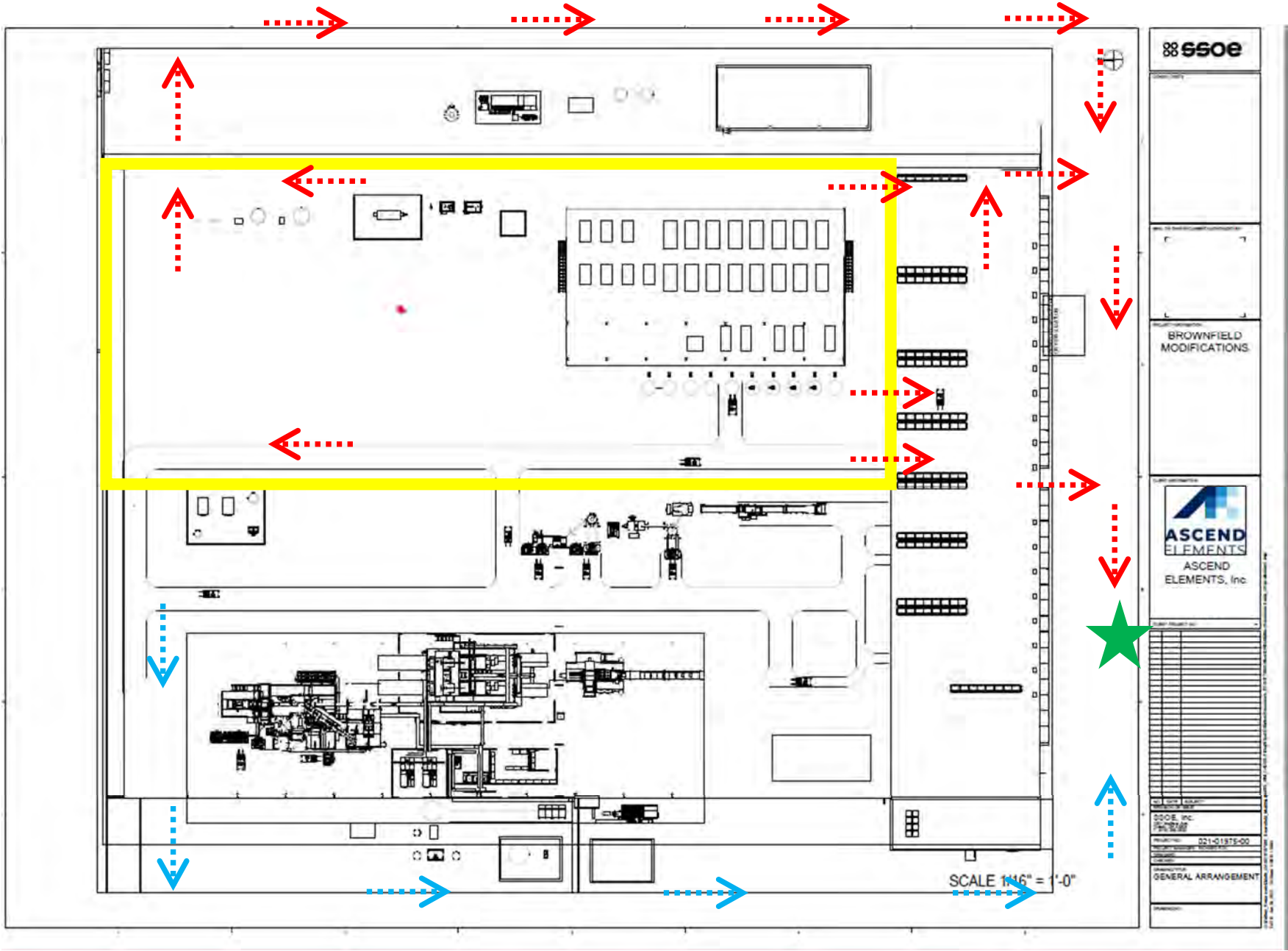
 WAREHOUSE

 ALTERNATE EVACUATION ROUTE

 ASSEMBLY POINT



FIGURE 3C – SITE EVACUATION ROUTES – MISCELLANEOUS AREA



LEGEND

 PRIMARY EVACUATION ROUTE

 MISCELLANEOUS AREA

 ALTERNATE EVACUATION ROUTE

 ASSEMBLY POINT

APPENDIX A

Arrangements Agreed to by Local Emergency Responders

**EMERGENCY PREPAREDNESS AND RESPONSE PLAN FOR MANAGEMENT OF
EXCLUDED HAZARDOUS SECONDARY MATERIALS
ASCEND ELEMENTS, INC. – COVINGTON, GEORGIA**

**TRANSMITTAL FORM FOR AGENCIES
(to be submitted in duplicate)**

To: City of Covington Fire Department Date: June 3, 2022
2101 Pace Street
Covington, Georgia 30014

Attached is a copy of the draft Emergency Preparedness and Response Plan for Management of Excluded Hazardous Secondary Materials for the Ascend Elements, Inc. site located in Covington, GA. Once this draft Plan has been approved by Georgia EPD, a copy of the approved version will be provided. This Plan meets the requirements for a written contingency plan under the following regulation: 40 CFR Part 261, Subpart M of the Federal Hazardous Waste Regulations.

40 CFR 261.420(c)(2) states that “a copy of the contingency plan and all revisions to the plan must be submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services”.

Please review this Plan to determine whether your agency is in agreement with the portions of the Plan that affects your duties and/or responsibilities (see Section 5 for a summary). After reviewing this Plan, please check the appropriate box below, sign, and return one copy of this form. Your cooperation in this matter is truly appreciated. If you have any questions, please contact:

Ed Gaughan, Plant Manager at (205) 601-7390 or egaughan@ascendelements.com

TO BE COMPLETED BY AGENCY:

We have reviewed your Emergency Preparedness and Response Plan for Management of Excluded Hazardous Secondary Materials and:

- Are in agreement with the content
 Are not in full agreement with the content because of the following:

1. _____
2. _____
3. _____

NAME: Joe Doss Gaughan
AGENCY: Covington F. D.
DATE: 6-28-22

Please return one completed copy to: Ed Gaughan (egaughan@ascendelements.com)
9176 Industrial Drive NE
Covington, GA 30014

From: Amos Miller <Amos.Miller@covingtonpolice.com>
Sent: Monday, June 27, 2022 3:57 PM
To: Kimberly S. Schappaugh
Subject: RE: Security Plan agreement

Good afternoon,

I hope you are doing well and had a nice weekend. We acknowledge receipt of your safety plan and would provide emergency services in the event of an emergency, or general call for service, as we would for any business or location within the City limits of Covington. Please let me know if you need anything else. I will be happy to help in any way that I can.

Lieutenant Al Miller

Covington Police | Support Services

☎ 770-385-6836 | ✉ amos.miller@covingtonpolice.com



City of Covington Police Department
13183 Harland Dr. NE | Covington, GA 30014
☎ (770) 786-7605

**EMERGENCY PREPAREDNESS AND RESPONSE PLAN FOR MANAGEMENT OF
EXCLUDED HAZARDOUS SECONDARY MATERIALS
ASCEND ELEMENTS, INC. – COVINGTON, GEORGIA**

**TRANSMITTAL FORM FOR AGENCIES
(to be submitted in duplicate)**

To: Piedmont Newton Hospital Date: June 3, 2022
5126 Hospital Drive NE
Covington, Georgia 30014

Attached is a copy of the draft Emergency Preparedness and Response Plan for Management of Excluded Hazardous Secondary Materials for the Ascend Elements, Inc. site located in Covington, GA. Once this draft Plan has been approved by Georgia EPD, a copy of the approved version will be provided. This Plan meets the requirements for a written contingency plan under the following regulation: 40 CFR Part 261, Subpart M of the Federal Hazardous Waste Regulations.

40 CFR 261.420(c)(2) states that "a copy of the contingency plan and all revisions to the plan must be submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services".

Please review this Plan to determine whether your agency is in agreement with the portions of the Plan that affects your duties and/or responsibilities (see Section 5 for a summary). After reviewing this Plan, please check the appropriate box below, sign, and return one copy of this form. Your cooperation in this matter is truly appreciated. If you have any questions, please contact:

Ed Gaughan, Plant Manager at (205) 601-7390 or egaughan@ascendelements.com

TO BE COMPLETED BY AGENCY:

We have reviewed your Emergency Preparedness and Response Plan for Management of Excluded Hazardous Secondary Materials and:

- Are in agreement with the content
 Are not in full agreement with the content because of the following:

1. _____
2. _____
3. _____

NAME: Duke McNary
AGENCY: Piedmont Newton Hospital
DATE: 6/30/22

Please return one completed copy to: Ed Gaughan (egaughan@ascendelements.com)
9176 Industrial Drive NE
Covington, GA 30014

**EMERGENCY PREPAREDNESS AND RESPONSE PLAN FOR MANAGEMENT OF
EXCLUDED HAZARDOUS SECONDARY MATERIALS
ASCEND ELEMENTS, INC. – COVINGTON, GEORGIA**

**TRANSMITTAL FORM FOR AGENCIES
(to be submitted in duplicate)**

To: Matt Kiely Date: June 22, 2022
Triumvirate Environmental
TRIUMVIRATE

Attached is a copy of the draft Emergency Preparedness and Response Plan for Management of Excluded Hazardous Secondary Materials for the Ascend Elements, Inc. site located in Covington, GA. Once this draft Plan has been approved by Georgia EPD, a copy of the approved version will be provided. This Plan meets the requirements for a written contingency plan under the following regulation: 40 CFR Part 261, Subpart M of the Federal Hazardous Waste Regulations.

40 CFR 261.420(c)(2) states that “a copy of the contingency plan and all revisions to the plan must be submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services”.

Please review this Plan to determine whether your agency is in agreement with the portions of the Plan that affects your duties and/or responsibilities (see Section 5 for a summary). After reviewing this Plan, please check the appropriate box below, sign, and return one copy of this form. Your cooperation in this matter is truly appreciated. If you have any questions, please contact:

Ed Gaughan, Plant Manager at (205) 601-7390 or egaughan@ascendelements.com

TO BE COMPLETED BY AGENCY:

We have reviewed your Emergency Preparedness and Response Plan for Management of Excluded Hazardous Secondary Materials and:

- Are in agreement with the content
 Are not in full agreement with the content because of the following:

1. _____
2. _____
3. _____

NAME: Richard Barry
AGENCY: TRIUMVIRATE ENVIRONMENTAL, INC.
DATE: 7-15-2022

Please return one completed copy to: Ed Gaughan (egaughan@ascendelements.com)
9176 Industrial Drive NE
Covington, GA 30014

**EMERGENCY PREPAREDNESS AND RESPONSE PLAN FOR MANAGEMENT OF
EXCLUDED HAZARDOUS SECONDARY MATERIALS
ASCEND ELEMENTS, INC. – COVINGTON, GEORGIA**

**TRANSMITTAL FORM FOR AGENCIES
(to be submitted in duplicate)**

Newton County Emergency
To: Management Agency Date: June 10, 2022
8146 Carlton Trail
Covington, Georgia 30014

Attached is a copy of the draft Emergency Preparedness and Response Plan for Management of Excluded Hazardous Secondary Materials for the Ascend Elements, Inc. site located in Covington, GA. Once this draft Plan has been approved by Georgia EPD, a copy of the approved version will be provided. This Plan meets the requirements for a written contingency plan under the following regulation: 40 CFR Part 261, Subpart M of the Federal Hazardous Waste Regulations.

40 CFR 261.420(c)(2) states that “a copy of the contingency plan and all revisions to the plan must be submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services”.

Please review this Plan to determine whether your agency is in agreement with the portions of the Plan that affects your duties and/or responsibilities (see Section 5 for a summary). After reviewing this Plan, please check the appropriate box below, sign, and return one copy of this form. Your cooperation in this matter is truly appreciated. If you have any questions, please contact:

Ed Gaughan, Plant Manager at (205) 601-7390 or egaughan@ascendelements.com

TO BE COMPLETED BY AGENCY:

We have reviewed your Emergency Preparedness and Response Plan for Management of Excluded Hazardous Secondary Materials and:

- Are in agreement with the content
 Are not in full agreement with the content because of the following:

1. _____
2. _____
3. _____

NAME: Wendy Jatta
AGENCY: Newton County EMA
DATE: July 1, 2022

Please return one completed copy to: Ed Gaughan (egaughan@ascendelements.com)
9176 Industrial Drive NE
Covington, GA 30014

APPENDIX B

Internal and External Emergency Contact List

EXTERNAL EMERGENCY CONTACT LIST
USE 911 FOR ALL FIRE, POLICE, OR MEDICAL EMERGENCIES

Ascend Elements, Inc. – 9176 Industrial Drive NE, Covington, Georgia 30014

FIRE DEPARTMENT	Covington Fire Department	911 or (770) 385-2100
POLICE	Covington Police Department	911 or (770) 786-7605
AMBULANCE		911
HOSPITAL	Piedmont Newton Hospital	911 or (770) 786-7053
SPILL RESPONSE CONTRACTOR	Triumvirate Environmental	888-834-9697
NATIONAL RESPONSE CENTER		(800) 424-8802
LOCAL EMERGENCY MANAGEMENT AGENCY (LEPC)	Newton County	(404) 772-0979
STATE EMERGENCY RESPONSE COMMISSION (SERC)	Georgia Environmental Protection Division – Emergency Operations Center	(800) 241-4113 (770) 387-4900
GEORGIA EMERGENCY MANAGEMENT AGENCY	State of Georgia	(404) 635-7000
U.S. EPA – REGION IV	U.S. EPA Region IV Spill Reporting Hotline (Regional Response Center)	(404) 562-8700
UTILITIES	Georgia Power	(706) 629-3160

INTERNAL EMERGENCY CONTACT LIST

FACILITY PERSONNEL

NOTE: Facility contact is the primary emergency coordinator. The business address for the facility contact as well as the other contacts is the facility address.

Primary Emergency Coordinator	Tracy Ellis EHS Manager tellis@ascendelements.com	Work Phone: TBD Cell Phone: (404) 447-5536
Alternate Emergency Coordinator	Jacob Birdsall Logistics Manager jbirdsall@ascendelements.com	Work Phone: TBD Cell Phone: (717) 877-3766
Alternate Emergency Coordinator	Ed Gaughan Plant Manager egaughan@ascendelements.com	Work Phone: TBD Cell Phone: (205) 601-7390

APPENDIX C

General Emergency Response Guidelines

SPILL RESPONSE GUIDELINES – SUMMARY

REMEMBER - SAFETY FIRST - WEAR PERSONAL PROTECTIVE EQUIPMENT!

1. ALERT OTHERS IN AREA. CALL SUPERVISOR FOR HELP IF NEEDED.
2. IDENTIFY WHAT YOU SAW AND THE SPILLED MATERIAL IF POSSIBLE.
3. LOOK FOR INJURIES — MEDICAL NEEDS TAKE PRIORITY.
4. PREPARE A PLAN OF ACTION.
 - Know what the potential hazards are and take necessary precautions.
 - Wear personal protective equipment (safety glasses, gloves, etc.).
 - Get spill clean-up equipment or other absorbent material.
5. ATTEMPT TO STOP AND CONTAIN SPILL.
 - Stop the source of the spill - upright containers, turn off pumps, close valves.
 - Stop spills from going to drains using drain covers/seals, absorbent materials, or portable containment barriers from a nearby spill kit.
 - Stop spills from going outside or to the soil using absorbent materials or portable containment barriers from a nearby spill kit.
 - If release reaches waterways, deploy booms and contact emergency response contractor, as necessary.
 - Shut off ignition sources if needed (motors, electrical circuits, open flames, etc.).
6. NOTIFY PLANT SUPERVISOR/DEPARTMENT MANAGER.

Plant Supervisor or Department Manager will notify Emergency Coordinator

 - Incidental (non-emergency, small, non-hazardous spills) – contact Emergency Coordinator, if desired.
 - Emergency – contact Emergency Coordinator.
 - Emergency Coordinator — contact governmental agencies.
7. CLEAN UP SPILL. Get help if needed (facility response team, outside contractors, fire department, etc.).
8. ACCUMULATE CLEAN-UP MATERIALS FOR PROPER DISPOSAL.
9. CONTACT EHS MANAGER FOR PROPER DISPOSAL OF SPILL CLEAN-UP MATERIAL.

FIRE RESPONSE GUIDELINES - SUMMARY

1. VERBALLY NOTIFY OTHERS IN AREA — YELL “FIRE”.
2. GET OUT OF AREA IF IT IS NOT SAFE.
3. IF YOU ARE TRAINED ON HOW TO USE THE FIRE EQUIPMENT AND THE FIRE IS IN THE INCIPIENT STAGE — ATTEMPT TO EXTINGUISH FIRE:
 - Use buddy system if possible.
 - Try and stand between the fire and an exit – do not let your exit be blocked by fire.
 - Do not stand in a pool of liquid — it could be flammable material and ignite.
 - To use extinguisher -- Remember PASS — **PULL** the pin, **AIM** at the base of the fire, **SQUEEZE** the trigger and **SWEEP**.
4. IF OUTSIDE MEDICAL OR FIRE ASSISTANCE IS NEEDED, CALL EMERGENCY COORDINATOR/PLANT SUPERVISOR/DEPARTMENT MANAGER WHO WILL CALL FOR MEDICAL OR FIRE ASSISTANCE.

DUTIES OF OTHERS

DEPARTMENT MANAGER/PLANT SUPERVISOR:

1. Call Emergency Coordinator
2. Announce over paging system (Plantwide; or page specific area) “Attention, Attention, Fire Emergency in Location”. Repeat twice and repeat again at approximately two-minute intervals until advised to cease by Emergency Coordinator or the Fire Department.
3. Guards will assist the Emergency Coordinator with directing the fire department to location of fire.
4. Do not allow vehicles/personnel into plant, except, if involved with emergency response.

PRODUCTION PERSONNEL:

1. Upon hearing the announcement, confirm that there is a fire and report back to Emergency Coordinator (actual problem or false alarm).
2. Shut off all power to area in which fire is located (if this can be done safely).

EMERGENCY COORDINATOR:

1. Contact 911 and/or fire department for assistance in responding to the fire.
2. Provide oversight at the incident scene(s).