

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K



ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31 , 2023
OR



TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _ to
Commission File Number 1-898

AMPCO-PITTSBURGH CORP ORATION



Pennsylvania

(State of Incorporation)

25-1117717

(I.R.S. Employer Identification No.)

726 Bell Avenue

,

Suite 301

Carnegie

,

Pennsylvania

15106

(Address of principal executive offices)

(

412

)

456-4400

(Registrant's telephone number)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class

Trading Symbol(s)

Name of each exchange on which registered

Common Stock, \$1 par value

AP

New York Stock Exchange

Series A Warrants to purchase shares of Common Stock

AP WS

NYSE American
Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the Registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of

this chapter) during the preceding 12 months (or such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	Smaller reporting company	
Non-accelerated filer			<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of the voting stock of Ampco-Pittsburgh Corporation held by non-affiliates on June 30, 2023 (based upon the closing price of the Registrant's Common Stock on the New York Stock Exchange on that date) was approximately \$

34 million.

As of March 21, 2024,

19,865,749 common shares were outstanding.

Documents Incorporated by Reference: Part III of this report incorporates by reference certain information from the Proxy Statement for the 2024 Annual Meeting of Shareholders.

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FORWARD-LOOKING STATEMENTS

The Private Securities Litigation Reform Act of 1995 (the "Act") provides a safe harbor for forward-looking statements made by us or on our behalf. *Management's Discussion and Analysis of Financial Condition and Results of Operations* and other sections of this Annual Report on Form 10-K, as well as the consolidated financial statements and notes hereto, may include, but are not limited to, statements about operating performance, trends and events we expect or anticipate will occur in the future, statements about sales and production levels, restructurings, the impact from pandemics and geopolitical conflicts, profitability and anticipated expenses, inflation, the global supply chain, future proceeds from the exercise of outstanding warrants, and cash outflows. All statements in this document other than statements of historical fact are statements that are, or could be, deemed "forward-looking statements" within the meaning of the Act and words such as "may," "will," "intend," "believe," "expect," "anticipate," "estimate," "project," "target," "goal," "forecast" and other terms of similar meaning that indicate future events and trends are also generally intended to identify forward-looking statements. Forward-looking statements speak only as of the date on which such statements are made, are not guarantees of future performance or expectations, and involve risks and uncertainties. For us, these risks and uncertainties include, but are not limited to:

- economic downturns, cyclical demand for our products and insufficient demand for our products;
- excess global capacity in the steel industry;
- limitations in availability of capital to fund our strategic plan;
- inability to maintain adequate liquidity to meet our operating cash flow requirements, repay maturing debt and meet other financial obligations;
- fluctuations in the value of the U.S. dollar relative to other currencies;
- increases in commodity prices or insufficient hedging against increases in commodity prices, reductions in electricity and natural gas supply or shortages of key production materials for us or our customers;
- inability to obtain necessary capital or financing on satisfactory terms to acquire capital expenditures that may be necessary to support our growth strategy;
- inoperability of certain equipment on which we rely;
- inability to execute our capital expenditure plan;
- liability of our subsidiaries for claims alleging personal injury from exposure to asbestos-containing components historically used in certain products of our subsidiaries;
- changes in the existing regulatory environment;
- inability to successfully restructure our operations and/or invest in operations that will yield the best long-term value to our shareholders;
- consequences of pandemics and geopolitical conflicts;
- work stoppage or another industrial action on the part of any of our unions;
- inability to satisfy the continued listing requirements of the New York Stock Exchange or the NYSE American Exchange;
- potential attacks on information technology infrastructure and other cyber-based business disruptions;
- failure to maintain an effective system of internal control; and
- those discussed more fully elsewhere in this report, particularly in Item 1A, *Risk Factors*, in Part I of this Annual Report on Form 10-K.

We cannot guarantee any future results, levels of activity, performance or achievements. In addition, there may be events in the future that we are not able to predict accurately or control which may cause actual results to differ materially from expectations expressed or implied by forward-looking statements. Except as required by applicable law, we assume no obligation, and disclaim any obligation, to update forward-looking statements whether as a result of new information, events or otherwise.

ITEM 1. BUSINESS

GENERAL DEVELOPMENT OF BUSINESS

Ampco-Pittsburgh Corporation (the “Corporation”) was incorporated in Pennsylvania in 1929. The Corporation, individually or together with its consolidated subsidiaries, is also referred to herein as the “Registrant.” The Corporation manufactures and sells highly engineered, high-performance specialty metal products and customized equipment utilized by industry throughout the world. It operates in two business segments – the *Forged and Cast Engineered Products* (“FCEP”) segment and the *Air and Liquid Processing* (“ALP”) segment. This segment presentation is consistent with how the Corporation’s chief operating decision-maker evaluates financial performance and makes resource allocation and strategic decisions about the business.

While the Corporation currently is operating at more normal levels, when compared to the operating levels during the pandemic and immediately thereafter, it continues to be challenged by lingering global economic effects of a post-pandemic environment and repercussions from the Russia-Ukraine conflict, among other events, including:

- Periodic disruptions to the global supply chain for the Corporation, its vendors and its customers;
- Global inflationary pressures;
- Depressed business activity in Europe and Asia (specifically China); and
- Global economic uncertainty.

The Corporation is actively monitoring, and will continue to actively monitor, the geopolitical and economic consequence of these events and the potential impact on its operations, financial condition, liquidity, suppliers, industry, and workforce.

NARRATIVE DESCRIPTION OF BUSINESS

Forged and Cast Engineered Products Segment

The FCEP segment produces forged hardened steel rolls, cast rolls and forged engineered products (“FEP”). Forged hardened steel rolls are used primarily in hot and cold rolling mills by producers of steel, aluminum and other metals. Cast rolls, which are produced in a variety of iron and steel qualities, are used mainly in hot strip mills, medium/heavy section mills, roughing mills, and plate mills. FEP principally are sold to customers in the steel distribution market, oil and gas industry and the aluminum and plastic extrusion industries. The segment has operations in the United States, England, Sweden, Slovenia, and an equity interest in three joint venture companies in China. Collectively, the segment primarily competes with European, Asian and North and South American companies in both domestic and foreign markets and operates several sales offices located throughout the world.

Union Electric Steel Corporation (“UES”) produces forged hardened steel rolls and FEP. It is headquartered in Carnegie, Pennsylvania, with three manufacturing facilities in Pennsylvania and one in Indiana. The following entities are direct or indirect operating subsidiaries of UES:

Union Electric Steel UK Limited produces cast rolls in a variety of iron and steel qualities for hot strip mills, medium/heavy section mills and plate mills. It is located in Gateshead, England.

Åkers Sweden AB produces cast rolls in a variety of iron and steel qualities for hot strip mills, medium/heavy section mills, roughing mills, and plate mills. It is located in Åkers Styckebruk, Sweden.

Åkers Valji Ravne d.o.o. produces forged rolls for cluster mills and Z-Hi mills, work rolls for narrow and wide strip and aluminum mills, back-up rolls for narrow strip mills, and leveling rolls and shafts. It is located in Ravne, Slovenia.

Alloys Unlimited Processing, LLC is a distributor of tool steels and alloys and carbon round bar. It is located in Austintown, Ohio.

The segment’s three joint venture companies in China include:

Shanxi Åkers TISCO Roll Co., Ltd. is a joint venture between Taiyuan Iron and Steel Co. Ltd. and Åkers AB, a non-operating subsidiary of UES, that produces cast rolls for hot strip mills, steckel mills and medium plate mills. It is located in Taiyuan, Shanxi Province, China. Åkers AB holds a 59.88% interest in the joint venture.

Anhui Baochang Roll Co., Ltd. is a joint venture among UES, Magang (Group) Holding Co., Ltd. and Jiangsu Gong-Chang Roll Co., Ltd. that produces large forged backup rolls for hot and cold strip mills. It is located in Maanshan, Anhui Province, China. Union Electric Steel (Hong Kong) Limited, a non-operating subsidiary of UES, holds a 33% interest in the joint venture.

Jiangsu Gong-Chang Roll Co., Ltd. is a joint venture that produces cast rolls for hot strip mills, medium/heavy section mills and plate mills. It is located in Xinjian Town Yixing City, Jiangsu Province, China. Union Electric Steel UK Limited holds a 24.03% interest in the joint venture.

Air and Liquid Processing Segment

The ALP segment includes Aerofin, Buffalo Air Handling and Buffalo Pumps, all divisions of Air & Liquid Systems Corporation ("Air & Liquid"), a wholly owned subsidiary of the Corporation. The segment has operations in Virginia and New York with its headquarters located in Carnegie, Pennsylvania. The segment utilizes an independent group of sales offices located throughout the United States and Canada and has several major competitors.

Aerofin Division of Air & Liquid Systems Corporation produces custom-engineered finned tube heat exchange coils and related heat transfer products for a variety of industries including OEM/commercial, nuclear power generation and industrial manufacturing. It is located in Lynchburg, Virginia.

Buffalo Air Handling Division of Air & Liquid Systems Corporation produces large custom-designed air handling systems for institutional (e.g., hospital, university), pharmaceutical and general industrial building markets. Its primary manufacturing facility is located in Amherst, Virginia with an additional Virginian manufacturing location added in the latter part of 2023.

Buffalo Pumps Division of Air & Liquid Systems Corporation manufactures centrifugal pumps for the fossil-fueled power generation, marine defense and industrial refrigeration industries. It is located in North Tonawanda, New York.

Products

In both segments, the products are dependent on engineering, principally custom designed, and are sold to sophisticated commercial and industrial users located throughout the world. Products are delivered directly to the customer via third-party carriers or customer-arranged transportation. For the FCEP segment, one customer accounted for 11% and 10% of its net sales in 2023 and 2022, respectively, the loss of which could have a material adverse effect on the segment. For the ALP segment, no customers exceeded 10% of its net sales in 2023 or 2022. For additional information on the products produced and financial information about each segment, see [Note 17](#), *Revenue*, and [Note 24](#), *Business Segments*, to the Consolidated Financial Statements.

Raw Materials

Raw materials used in both segments are generally available from many sources, and neither segment is dependent upon any single supplier for any raw material. Substantial volumes of raw materials used by each segment are subject to significant variations in price. The Corporation's subsidiaries generally do not purchase or commit for the purchase of a major portion of raw materials significantly in advance of the time they require such materials but periodically make forward commitments for natural gas, electricity and certain commodities (copper and aluminum). See [Note 15](#), *Derivative Instruments*, to the Consolidated Financial Statements.

Patents and Trademarks

While the Corporation and its subsidiaries hold certain patents, trademarks and licenses, in the opinion of the Corporation, they are not material to either segment.

Backlog

The backlog of orders at December 31, 2023 was approximately \$378.9 million compared to a backlog of \$369.0 million at year-end 2022. Backlog for the ALP segment increased by approximately \$14.5 million and benefited from improved order intake for each of the product lines. Backlog for the FCEP segment decreased by approximately \$4.6 million year over year due to lower FEP and cast roll orders partly offset by improved demand and selling prices for mill rolls and higher foreign exchange rates used to translate the backlog of the Corporation's foreign subsidiaries into the U.S. dollar. Approximately 13% of the backlog is expected to be released after 2024.

Competition

The Corporation faces considerable competition from a large number of companies in both segments. The Corporation believes, however, its subsidiaries are significant participants in each of the niche markets they serve. Competition in both segments is based on quality, service, price, and delivery.

Environmental Protection Compliance Costs

Expenditures for environmental control matters were not material to either segment in 2023 and are not expected to be material in 2024.

Employees and Human Capital Management

Employees

On December 31, 2023, the Corporation and its subsidiaries had 1,697 active employees worldwide (substantially all full-time), of which approximately 58% were employed in the United States. Approximately 31% of the Corporation's employees are covered by collective bargaining agreements or agreements with works councils.

Oversight

The Compensation Committee of the Board of Directors maintains oversight of the Corporation's human capital management strategies it may deem important to the long-term sustainability of the Corporation.

Key Areas of Focus for the Corporation

Health and Safety – The Corporation's health and safety program is designed around the regulations associated with the specific hazards and unique working environments of the Corporation's manufacturing operations and headquarters. The Corporation requires all of its locations to perform regular safety audits to ensure compliance with the safety program. Leading indicators, such as reporting and training of all near-miss events, are used to identify risks for potential future incidents. Lagging indicators, such as OSHA recordable rates and lost-time incidence rates, are used to measure achievement of safety metrics.

Diversity and Inclusion – The Corporation tracks various metrics such as turnover, absenteeism and diversity. The Corporation has developed strategies to ensure employees of diverse backgrounds and perspectives enjoy a culture of mutual respect, inclusiveness and teamwork in an environment which values diversity.

AVAILABLE INFORMATION

The Corporation files annual, quarterly and current reports; amendments to those reports; proxy statements; and other information with the Securities and Exchange Commission ("SEC"). You may access and read the Corporation's filings without charge through the SEC's website at www.sec.gov. The Corporation's internet address is www.ampcopittsburgh.com. The Corporation makes available, free of charge on its website, access to these reports as soon as reasonably practicable after such material is filed with, or furnished to, the SEC. The information on the Corporation's website is not part of this Annual Report on Form 10-K.

EXECUTIVE OFFICERS

The name, age, position with the Corporation, and business experience for at least the past five years of the Executive Officers⁽¹⁾ of the Corporation are as follows:

J. Brett McBrayer (age 58). Mr. McBrayer has served as Chief Executive Officer of the Corporation since July 2018. He previously served as President and Chief Executive Officer at Airtex Products and ASC Industries, a global manufacturer and distributor of automotive after-market and OEM fuel and water pumps from 2012 to 2017. Airtex Products and ASC Industries, together with its parent company, UCI International LLC, and affiliated companies, filed for bankruptcy protection in June 2016, and successfully emerged in December 2016. Mr. McBrayer also served as Vice President and General Manager of the Alcan Cable business at Rio Tinto Alcan, as Vice President and General Manager of the Specialty Metals Division at Precision Cast Parts Corporation, and held positions of various responsibility and leadership during his 20 years with Alcoa, Inc. Mr. McBrayer received a Bachelor of Science in Industrial Engineering from the University of Tennessee and a Master of Arts in Applied Behavioral Science from Bastyr University.

Michael G. McAuley (age 60). Mr. McAuley has served as Senior Vice President, Chief Financial Officer and Treasurer of the Corporation since March 2018 and as Vice President, Chief Financial Officer and Treasurer since April 2016.

Samuel C. Lyon (age 55). Mr. Lyon has served as President of Union Electric Steel Corporation since February 2019. He previously served as Vice President and Group President of Performance Engineered Products at Carpenter Technology Corporation, a developer, manufacturer and distributor of stainless steels and corrosion-resistant alloys from July 2017 to January 2019.

David G. Anderson (age 56). Mr. Anderson has been employed by the Corporation since 2010 and has served as President of Air & Liquid Systems Corporation since January 2022. He previously served as Vice President of Finance for Union Electric Steel Corporation from October 2018 to December 2021, and as Vice President of Air & Liquid Systems Corporation from May 2016 to October 2018.

(1) Officers serve at the discretion of the Board of Directors of the Corporation and none of the listed individuals serve as a director of another public company.

ITEM 1A. RISK FACTORS

Our business, financial condition, results of operations, liquidity, and the value of any investment in our securities are subject to a number of inherent risks and uncertainties. The risks and uncertainties described below are those we have identified as material as of the date of this Annual Report on Form 10-K, but they are not the only risks and uncertainties we face. Additional risks and uncertainties not currently known to us or we currently believe are not material also may impair our business, financial condition, results of operations, liquidity, and the value of any investment in our securities.

RISKS RELATED TO OUR BUSINESS AND INDUSTRY

Cyclical demand for products and economic downturns could reduce the demand for, and sales of, our products, which could adversely affect our margins and profitability.

A significant portion of the FCEP segment's sales consists of mill rolls to customers in the global steel and aluminum industry that may be periodically impacted by economic or cyclical downturns and other disruptions. Such downturns and disruptions, the timing and length of which are difficult to predict, may cause demand for steel and aluminum to be lower than forecasted which may reduce the demand for, and sales of, our forged and cast rolls both in the United States and the rest of the world. Lower demand for rolls may also adversely impact profitability as other competing roll producers lower selling prices in the marketplace to fill their manufacturing capacity. Cancellation of orders or deferral of delivery of rolls may occur and produce an adverse impact on our financial results. In addition, sales of FEP, specifically open-die forged products for the oil and gas industry and steel distribution markets, are impacted by fluctuations in global energy demand, which also could adversely affect our margins and profitability.

Excess global capacity in the steel industry could lower prices for our products, which could adversely affect our sales, margins and profitability, as well as the collectability of our receivables and the salability of our in-process inventory.

The global steel manufacturing capacity continues to exceed global consumption of steel products. Such excess capacity often results in manufacturers in certain countries exporting steel at prices significantly below their home market prices (often due to local government assistance or subsidies). This could lead to global market destabilization and reduced sales and profitability of some of our customers which, in turn, affects our sales and profit margins, as well as the collectability of our receivables and the salability of our in-process inventory. Excess capacity in the global roll industry and cyclical in end-market demand also pose risks of potential impairment of our long-lived assets, which could be material to our results of operations and the carrying value of our assets.

A reduction in the level of our export sales, as well as other economic factors in foreign countries, could have an adverse impact on our financial results.

Exports are a significant portion of our sales. Historically, changes in foreign exchange rates, particularly in respect of the U.S. dollar, British pound, Swedish krona, and euro, have impacted the export of our products and may do so again in the future. Other factors that may adversely impact our export sales and our operating results include political and economic instability, export controls, changes in tax laws and tariffs, and new producers in overseas markets. A reduction in the level of our export sales may have an adverse impact on our financial results. In addition, changes in foreign currency exchange rates may provide foreign roll suppliers with advantages based on those lower foreign currency exchange rates and, therefore, permit them to compete in our home markets.

We could face limitations in availability of capital to fund our strategic plans. Additionally, deterioration in our credit profile or increases in interest rates could increase our costs of borrowing and further limit our access to capital markets and commercial credit.

We are parties to a senior secured asset-based revolving credit facility with a consortium of banks. The revolving credit facility is collateralized by a first priority perfected security interest in substantially all of our assets. The revolving credit facility provides for borrowings not to exceed \$100 million and otherwise restricts us from incurring additional indebtedness outside of the agreement, unless approved by the lenders party to the revolving credit facility. The revolving credit facility is subject to various affirmative and negative covenants and contains various sub-limits, including those based on the type of collateral and borrowings by geographic region. If the financial covenants become difficult to meet or if our borrowing needs increase beyond the prescribed limits, our financial position, results of operations and liquidity may be materially adversely affected. In addition, changes in our credit profile could cause less favorable commercial terms for the procurement of materials required to manufacture our products, which also could have a negative impact on our financial position, results of operations and liquidity. Further, our access to public and private capital markets is limited based on our size, credit profile and not being a well-known seasoned issuer, which may result in limitations in availability of capital to fund our strategic plans. If we are unable to fund our strategic plans, whether through cash from operations or from the capital markets, we may have to forego opportunities that would otherwise be accretive to our operating results for potentially an extended period.

We need to maintain adequate liquidity to meet our operating cash flow requirements, debt service costs and other financial obligations. If we fail to comply with the covenants contained in our revolving credit facility or our equipment financing facility, it may adversely affect our liquidity, results of operations and financial condition.

Our liquidity is a function of our cash on-hand, our ability to successfully generate cash flows from a combination of efficient operations and continuing operating improvements, availability from our revolving credit facility, access to capital markets, and funding from other third parties. We believe our liquidity (including operating and other cash flows that we expect to generate and revolving credit availability) should be sufficient to meet our operating cash flow requirements, debt service costs and other financial obligations as they occur; however, our ability to maintain sufficient liquidity going forward is subject to the general liquidity of, and ongoing changes, in the credit markets as well as general economic, financial, competitive, legislative, regulatory, and other market factors that are beyond our control. If we are not able to maintain adequate liquidity, we may not be able to meet our operating cash flow requirements, debt service costs, or other financial obligations such as future required contributions to our employee benefit plans.

Our revolving credit facility is subject to various affirmative and negative covenants and our equipment financing facility includes various affirmative covenants. Failure to comply with material provisions or covenants in these facilities could have a material adverse effect on our liquidity, results of operations and financial condition. We may seek to renegotiate or replace a facility or may determine not to replace a facility at all and, instead, pursue other forms of liquidity. Any new credit agreement or other forms of liquidity may result in higher borrowing costs and contain non-investment grade covenants that are less favorable in comparison to our existing revolving credit and equipment financing facility, if available at all.

Fluctuation in the value of the U.S. dollar relative to other currencies could adversely affect our business, results of operations and financial condition.

Certain of our subsidiaries operate in foreign jurisdictions and, accordingly, earn revenues, pay expenses, own assets, and incur liabilities in countries using currencies other than the U.S. dollar. Since our consolidated financial statements are presented in U.S. dollars, we must translate revenues and expenses into U.S. dollars at the average exchange rate during each reporting period and assets and liabilities into U.S. dollars at the exchange rate in effect at the end of each reporting period. Therefore, increases or decreases in the value of the U.S. dollar against other major currencies will affect the translated value for revenue, expenses and balance sheet items denominated in foreign currencies and could materially affect our financial results expressed in U.S. dollars.

Increases in energy and commodity prices, reductions in electricity and natural gas supply or shortages of key production materials could adversely impact our production, which could result in lower profitability or higher losses.

Our subsidiaries use certain commodities in the manufacture of their products. These include steel scrap, ferroalloys and energy. Any unexpected, sudden or prolonged price increase may cause a reduction in our profit margins or result in losses where beneficial fixed-priced contracts do not exist, unfavorable fixed-priced contracts cannot be modified or increases cannot be obtained in our selling prices. In addition, there could be a time lag between when we incur such price increases and when we are able to recover such increases in our selling prices. Global increases in transportation costs and more limited availability of freight carriers may impact timely delivery of supplies to our subsidiaries and product to our customers, and may negatively impact our sales, production and profitability. There also may be curtailment in electricity or natural gas supply or availability of key production materials, which could adversely impact our production or result in lower profitability, higher losses or impairment of our long-lived assets. Shortage of key production materials, while driving up costs, may be of such severity as to disrupt our production, all of which may impact our sales and profitability.

Geopolitical factors or wars, including the Russia-Ukraine conflict and the Red Sea crisis, could exacerbate the above risks. In particular, the Russia-Ukraine conflict has significantly increased the cost of energy for our U.K. operations. As a result, we have moved certain of our cast roll production from the U.K. to Sweden, reducing profitability of our U.K. operations but improving profitability for our Sweden operations.

We may not be able to scale our operational capacity in line with demand for our products.

Demand for our products, particularly in our ALP segment, may grow at a pace that exceeds our operational capacity, including our manufacturing capabilities. We may be required to expand our facilities or contract with third parties to meet such growth, which we may not be able to do in a timely manner, if at all. If we are required to expand our facilities to meet growth in client demand, we may not have access to sufficient capital resources to expand in a timely manner, if at all. As a result, we may not be able to maximize sales growth and, therefore, could lose opportunities to produce additional revenue.

We have entered into sale-leaseback transactions, which create the risk of loss if we default.

UES and Air & Liquid have entered into sale and leaseback financing transactions with Store Capital Acquisitions, LLC ("STORE") relating to certain properties utilized by the segments of the Corporation. Pursuant to such sale and leaseback financing transactions,

UES has entered into a master lease with STORE through which it will lease the same properties from STORE and further sublease certain properties to Air & Liquid and/or the Corporation. The lease entered into by UES contains certain representations, warranties, covenants, obligations, conditions, indemnification provisions, and termination provisions customary for that type of agreement. If we default on the terms of the master lease and fail to renew such lease on acceptable terms, we could lose access to such properties and may not be able to continue with our manufacturing operations which could be detrimental to our financial position, results of operations and liquidity. In addition, we must sublet or provide replacement property if we close, sell or otherwise exit a property included in the sale and leaseback financing transactions, which may hinder our ability to successfully restructure our operations.

Our growth strategy has required substantial capital expenditures, which have been funded by the incurrence of additional debt. If we are unable to repay debt service costs, we may be unable to obtain alternative financing on acceptable terms, or at all, and our liquidity, results of operations and financial condition may be adversely affected.

To support our growth strategy in the FCEP segment, we have made, and expect to continue to make, significant commitments for capital expenditures. We expect to continue to fund these capital expenditures with our equipment financing facility. The additional indebtedness will require a portion of our cash flows from operations to be used for the payment of interest and principal, thereby reducing our ability to use our cash flows from operations to fund working capital, other capital expenditures and acquisitions. Furthermore, raising equity capital generally would dilute existing shareholders. If additional capital is needed, we may not be able to obtain debt or equity financing on terms acceptable to us, or at all.

Our dependence on certain equipment may cause an interruption in our production if such equipment is out of operation for an extended period of time, which could result in lower sales and profitability.

Our principal business relies on certain unique equipment such as an electric arc furnace and a spin cast work roll machine. Although a comprehensive critical spare inventory of key components for this equipment is maintained, if any such unique equipment is out of operation for an extended period of time, it may result in a significant reduction in our sales and earnings.

Failure of financial institutions or the need of liquidity from third-party sources by financial institutions may affect our access, or our customers' access to, capital resources.

Failure of financial institutions or the need of liquidity from third-party sources by financial institutions may place additional stress on other financial institutions, which may limit our, or our customers', access to short-term financing or result in higher interest rates. Our inability to access, or our customers' inability to access, short-term financing at competitive rates may adversely affect our liquidity, financial condition or results of operations.

The ultimate liability of our subsidiaries for claims alleging personal injury from exposure to asbestos-containing components historically used in certain products of our subsidiaries could have a material adverse effect on our financial condition, results of operations or liquidity in the future.

Certain of our subsidiaries and, in some cases, we, are defendants in numerous claims alleging personal injury from exposure to asbestos-containing components historically used in certain products of these subsidiaries. Through the current year end, our insurance has covered a majority of our settlement and defense costs. We believe the estimated costs, net of anticipated insurance recoveries, of our pending and future asbestos legal proceedings should not have a material adverse effect on our financial condition or liquidity. However, there can be no assurance our subsidiaries or we will not be subject to significant additional claims in the future or our subsidiaries' ultimate liability with respect to asbestos claims will not present significantly greater and longer lasting financial exposure than provided in our consolidated financial statements. The ultimate net liability with respect to such pending and any unasserted claims is subject to various uncertainties including, but not limited to, the following:

- the number and nature of claims in the future;
- the costs of defending and settling these claims;
- insolvencies among our insurance carriers and the risk of future insolvencies;
- the possibility of adverse jury verdicts could require damage payments in amounts greater than the amounts for which we have historically settled claims or have provided for future claims;
- possible changes in the litigation environment or federal and state law governing the compensation of asbestos claimants; and
- the risk of bankruptcies of other asbestos defendants which may increase our costs.

Because of the uncertainties related to such claims, it is possible our ultimate liability could have a material adverse effect on our financial condition, results of operations or liquidity in the future.

A change in the existing regulatory environment could negatively affect our operations, financial performance and liquidity.

We are subject to a wide variety of complex domestic and foreign laws, rules and regulations, including trade policies and tax regimes. We are affected by new laws and regulations and changes to existing laws and regulations, including interpretations by the courts and regulators, whether prompted by changes in government administrations or otherwise. These laws, regulations and policies, and changes thereto, may result in restrictions or limitations to our current operational practices and processes and our product/service offerings which could negatively impact our current cost structure, revenue streams, future tax obligations, the value of our deferred income tax assets, cash flows, and overall financial position.

In addition, our tax filings are subject to audits by tax authorities in the various jurisdictions in which we do business. These audits may result in assessments of additional taxes that are subsequently resolved with the taxing authorities or through the courts. Currently, we believe there are no outstanding assessments whose resolution would result in a material adverse financial result. However, there can be no assurance that unasserted or potential future assessments would not have a material adverse effect on our financial condition, results of operations and liquidity.

The United States currently imposes tariffs of 25% on primary steel imports and 10% on primary aluminum imports into the United States. As consumers of steel and aluminum in some of our products, our cost base is exposed to these tariffs and could be exposed to additional tariffs, higher tariffs or similar actions in the future, which could reduce our margins, and we could potentially lose market share to foreign competitors not subject to similar tariff increases. Our financial condition, results of operations and liquidity may be affected by these tariffs, or similar actions. Moreover, these tariffs, or other changes in U.S. trade policy, have resulted in, and may continue to trigger, retaliatory actions by affected countries which could adversely impact demand for our products, as well as impact our costs, customers, suppliers, and/or the U.S. economy or certain sectors thereof and, thus, may adversely impact our business, operations and financial performance.

We generate approximately 10% of the sales in the FCEP segment from one customer, and the loss of, or significant reduction in, the orders of such customer could have a material adverse effect on the segment.

One customer accounted for approximately 11% and 10% of the net sales of the FCEP segment for the years ended December 31, 2023 and 2022, respectively. The loss of such customer, or a significant reduction in the orders of such customer, could have a material adverse effect on the segment. For the ALP segment, no customers exceeded 10% of its net sales in 2023 or 2022.

Pandemics and geopolitical conflicts may cause disruptions to our business and the industries in which we operate.

Pandemics and geopolitical conflicts may increase economic and demand uncertainty and could cause a sustained global recession. We may experience episodic disruptions to our operations or our business, or to the operations or the business of our customers and suppliers, which, individually or in the aggregate, may impact our financial condition, results of operations and liquidity. Further, local governmental measures may be implemented to control the spread of viruses, including restrictions on manufacturing and the movement of employees in many regions and countries, and may be significant.

A pandemic or geopolitical conflict may adversely affect our liquidity and our ability to access the capital markets. Additionally, government stimulus programs available to us, our customers or our suppliers, if any, may prove to be insufficient or ineffective. Furthermore, in the event the impact from a pandemic or geopolitical conflict causes us to be unable to maintain a certain level of excess availability under our revolving credit facility, our availability of funds may become limited, or we may be required to renegotiate the facility on less favorable terms. If we are unable to access additional credit at the levels we require, or the cost of credit is greater than expected, it could materially adversely affect our financial condition, results of operations and liquidity.

We have significant international operations. A pandemic or geopolitical conflict could negatively affect our workforce, both domestically and abroad, requiring some or all of our employees to work remotely on a longer-term or permanent basis, thereby requiring new processes, procedures and controls to respond to changes in our business environment. We may be susceptible to increased litigation related to, among other things, the financial impacts of the pandemic or geopolitical conflict on our business, our ability to meet contractual obligations due to the pandemic or geopolitical conflict, employment practices or policies adopted during the health crisis, or litigation related to individuals contracting any disease as a result of alleged exposures on our premises.

The impact of a pandemic or a geopolitical conflict also may have the effect of exacerbating many of the other risks described herein.

Uncertainty related to environmental regulation and industry standards, as well as the physical risks of climate change, could impact our results of operations and financial position.

Increased public awareness and concern regarding environmental risks, including global climate change, may result in more international, regional and/or federal requirements or industry standards to reduce or mitigate global warming and other environmental risks. New climate change laws and regulations could require us to change our manufacturing processes or obtain substitute materials that may cost more or be less available for our manufacturing operations. Various jurisdictions in which we do business have implemented, or in the future could implement or amend, restrictions on emissions of carbon dioxide or other greenhouse gases,

limitations or restrictions on water use, changes from traditional fossil fuel sources to renewables, regulations on energy management and waste management, and other climate change-based rules and regulations, which may increase our costs and adversely affect our operating results. In addition, the physical risks of climate change may impact the availability and cost of materials, sources and supply of energy, product demand and manufacturing and could increase our insurance and other operating costs. The expected future increased worldwide regulatory activity relating to climate change could expand the nature, scope and complexity of matters we are required to control, assess and report. If environmental laws or regulations or industry standards are either changed or adopted and impose significant operational restrictions and compliance requirements upon us, our suppliers, our customers, or our products, or if our operations are disrupted due to the physical impacts of climate change on us, our suppliers, our customers or our business, our results of operation, financial condition and liquidity could be adversely impacted.

A work stoppage or another industrial action on the part of any of our unions could be disruptive to our operations.

Our subsidiaries have several key operations which are subject to multi-year collective bargaining agreements or agreements with works councils with their hourly work forces. While we believe we have good relations with our unions, there is the risk of industrial action or work stoppage at the expiration of an agreement if contract negotiations fail, which may disrupt our manufacturing processes and impact our results of operations.

We may not realize the expected benefits from any restructuring or realignment initiatives or improvement efforts that we have taken or may take in the future.

We periodically evaluate our segments and continue to undertake restructuring and realignment initiatives to reduce our overall cost basis and improve efficiency by pursuing a variety of strategies including, without limitation, optimizing our operations in our physical footprint, disposing of certain assets and pursuing opportunities that are accretive to our operating results. There can be no assurance we will fully realize the benefits of such efforts as anticipated, and we may incur additional and/or unexpected costs to realize them. These actions could yield other unintended consequences, such as distraction of management and employees, business disruption, reduced employee morale and productivity, and unexpected employee attrition, including the inability to attract or retain key personnel. If we fail to achieve the expected benefits of any restructuring or realignment initiatives and improvement efforts, or if other unforeseen events occur in conjunction with such efforts, our business, results of operations, financial condition and liquidity could be negatively impacted.

RISKS RELATED TO OWNERSHIP OF OUR SECURITIES

If we fail to maintain an effective system of internal control, we may not be able to accurately determine our financial results or prevent fraud. As a result, our shareholders could lose confidence in our financial results, which could harm the business and the value of our securities.

Effective internal control is necessary to provide reliable financial reports and effectively prevent fraud. Section 404 of the Sarbanes-Oxley Act of 2002 requires us to evaluate and report on our internal control over financial reporting. Our internal control over financial reporting is not subject to attestation by our independent registered public accounting firm pursuant to the exemption provided to issuers that are not "large accelerated filers" or "accelerated filers" under the Dodd-Frank Act of 2010. There can be no assurance we will be successful in maintaining adequate internal control over our financial reporting and financial processes in the future. We may in the future discover areas of our internal control needing improvement. Furthermore, to the extent our business grows, our internal control may become more complex, and we would require significantly more resources to ensure our internal control remains effective. If we or our independent registered public accounting firm discover a material weakness, the disclosure of that fact, even if quickly remediated, could reduce the market value of our securities. Additionally, the existence of any material weakness could require us to devote significant time and incur significant expense to identify and remediate any such material weaknesses, and we may not be able to remediate any such material weaknesses in a timely manner.

Actions of activist shareholders with respect to us or our securities could be disruptive and potentially costly and the possibility that activist shareholders may contest, or seek changes conflicting with, our strategic direction could cause uncertainty about the strategic direction of our business.

Activist shareholders may, from time to time, attempt to effect changes in our strategic direction and, in furtherance thereof, may seek changes in how we are governed. While our Board of Directors and management team strive to maintain constructive, ongoing communications with all of our shareholders, including activist shareholders, and welcome their views and opinions with the goal of working together constructively to enhance value for all shareholders, activist campaigns that contest, or conflict with, our strategic direction could have an adverse effect on us because: (i) responding to actions by activist shareholders can disrupt our operations, be costly and time-consuming and divert the attention of our Board of Directors and senior management from the pursuit of business strategies, which could adversely affect our results of operations and financial condition; (ii) perceived uncertainties as to our future direction may lead to the perception of a change in the direction of the business, instability or lack of continuity which may be exploited by our competitors, cause concern to our current or potential customers, result in the loss of potential business opportunities

and make it more difficult to attract and retain qualified personnel and business partners; and (iii) these types of actions could cause significant fluctuations in our stock price due to factors not necessarily reflecting the underlying fundamentals and prospects of our business.

We may not be able to satisfy the continued listing requirements of the New York Stock Exchange and the NYSE American Exchange for our common stock and Series A warrants, respectively.

Our common stock is currently listed on the New York Stock Exchange, and our Series A warrants are listed on the NYSE American Exchange, with each imposing objective and subjective requirements for continued listing.

Continued listing criteria of the New York Stock Exchange include maintaining prescribed levels of financial condition, market capitalization and shareholders' equity. Specifically, the New York Stock Exchange requires a company with common equity listed on its exchange to maintain average global market capitalization over a consecutive 30 trading-day period of at least \$50 million or maintain shareholders' equity of at least \$50 million and maintain a share price of at least \$1.00. Our common stock's average-global market capitalization over the 30 trading-day period ended December 31, 2023 was \$52.6 million, and our total Ampco-Pittsburgh shareholders' equity was \$60.9 million as of December 31, 2023. Should we receive a notice of non-compliance, the New York Stock Exchange may allow up to an 18-month cure period if we present a plan to become compliant with adequate strategic actions and progress reporting satisfactory to the New York Stock Exchange. If the New York Stock Exchange determines our common stock fails to satisfy the requirements for continued listing, or we continue to fail to meet listing criteria, our common stock could be de-listed from the New York Stock Exchange, which could impact potential liquidity for our shareholders.

Continued listing criteria of the NYSE American Exchange include maintaining prescribed levels of financial condition, market capitalization and shareholders' equity. Among other requirements, there must be an aggregate of at least 50,000 Series A warrants. Satisfaction of the NYSE American Exchange's listing requirements therefore depends upon the extent to which warrant holders elect to exercise their Series A warrants. There can be no assurance we will continue to meet these, or other, listing standards of the NYSE American Exchange with respect to the Series A warrants. If we fail to meet the listing criteria, our warrants could be de-listed from the NYSE American Exchange, which could impact potential liquidity for our shareholders.

Holders of Series A warrants will have no rights as holders of our common stock until they exercise their Series A warrants and acquire our common stock.

Until holders of our Series A warrants acquire shares of our common stock upon exercise of their Series A warrants, they will have no rights with respect to the shares of our common stock underlying such Series A warrants. Upon exercise of the Series A warrants, the holders thereof will be entitled to exercise their rights as holders of our common stock only as to matters for which the record date occurs after the warrant exercise date.

The market price of our common stock may not exceed the exercise price of the Series A warrants at such time as the holder desires to exercise such Series A warrants and, accordingly, the Series A warrants may have no value.

The Series A warrants are exercisable through August 1, 2025. The market price of our common stock may not exceed the exercise price of the Series A warrants at such times prior to their date of expiration or when the holder desires to exercise such warrants. Any Series A warrants not exercised by their date of expiration will expire without residual value to the holders. Additionally, the price of the Series A warrants may fluctuate, and liquidity may be limited. Holders of Series A warrants may be unable to resell their Series A warrants at a favorable price, or at all.

Because the Series A warrants are executory contracts, they may have no value in a bankruptcy or reorganization proceeding.

In the event a bankruptcy or reorganization proceeding is commenced by or against us, a bankruptcy court may hold that any unexercised Series A warrants are executory contracts subject to rejection by us with the approval of a bankruptcy court. As a result, even if we have sufficient funds, holders may not be entitled to receive any consideration for their Series A warrants or may receive an amount less than they would have been entitled to if they had exercised their Series A warrants prior to the commencement of any such bankruptcy or reorganization proceeding.

GENERAL RISK FACTORS

Potential attacks on information technology infrastructure and other cyber-based business disruptions could have a material adverse effect on our financial condition, results of operations and liquidity.

We depend on integrated IT systems to conduct our business. As a public, multi-national corporation, we are a target of phishing attacks on our email systems and other cyber-attacks, which may include computer denial-of-service attacks, computer viruses, ransomware and other malware, state-sponsored cyber-attacks, industrial espionage, insider threats, wire fraud, or other cyber incidents. IT systems failures, including risks associated with upgrading our systems or successfully integrating IT and other systems

to common platforms, network disruptions and breaches of data security could disrupt our operations by impeding our processing of transactions, our ability to protect customer or company information and our financial reporting. Our computer systems, including our back-up systems, could be damaged or interrupted by power outages; computer and telecommunications failures; computer viruses; internal or external security breaches; events such as fires, earthquakes, floods, tornadoes, and hurricanes; and errors by our employees. Cyber-based risks are evolving and include potential attacks to our IT infrastructure and to the IT infrastructure of third parties in attempts to gain unauthorized access to our confidential or other proprietary information or information relating to our employees, customers and other third parties, or to seek ransom. If a third party gained unauthorized access to our data, including any data regarding our employees, customers, or vendors, the security breach could expose us to risks, including loss of business, fines, and litigation. Although we have taken steps to address these concerns, there can be no assurance a system failure or data security breach will not have a material adverse effect on our financial condition, results of operations and liquidity.

Our By-laws designate the state and federal courts sitting in the judicial district of the Commonwealth of Pennsylvania as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our shareholders and the federal courts as the sole and exclusive forum for claims arising under the Securities Act of 1933, as amended, which could discourage lawsuits against us and our directors and officers but may be found to be inapplicable or unenforceable.

Our By-laws provide, unless we otherwise consent in writing, the state and federal courts sitting in the judicial district of the Commonwealth of Pennsylvania embracing the county in which our principal executive office is located will be the sole and exclusive forum for (a) any derivative action or proceeding brought on behalf of us, (b) any action asserting a claim of breach of a fiduciary duty owed to us or our shareholders by any director, officer or other employee of ours, (c) any action asserting a claim against us or against any of our directors, officers or other employees arising pursuant to any provision of the Pennsylvania Business Corporation Law of 1988 or our Articles of Incorporation or By-laws, (d) any action seeking to interpret, apply, enforce, or determine the validity of our Article of Incorporation or By-laws, or (e) any action asserting a claim against us or any director or officer or other employee of ours governed by the internal affairs doctrine (collectively, "Internal Governance Claims"). This exclusive forum provision does not apply to suits brought to enforce a duty or liability created by the Securities Exchange Act of 1934, as amended (the "Exchange Act") or the Securities Act of 1933, as amended (the "Securities Act"). However, the federal courts are the sole and exclusive forum for any complaint asserting a cause of action arising under the Securities Act, pursuant to our By-laws, and any complaint asserting a cause of action arising under the Exchange Act, pursuant to Section 27 of the Exchange Act. This exclusive forum provision may limit the ability of our shareholders to bring a claim in a judicial forum that such shareholders find favorable for disputes with us or our directors or officers, which may discourage such lawsuits against us and our directors and officers. Alternatively, if a court outside of Pennsylvania with respect to Internal Governance Claims or any other state court with respect to a cause of action under the Securities Act were to find this exclusive forum provision inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings described above, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business, financial condition and results of operations.

ITEM 1B. UNRESOLVED STAFF COMMENTS

The Corporation has no unresolved staff comments.

ITEM 1C. CYBERSECURITY

Risk Management

The Corporation's risk management program includes focused efforts to identify, assess and manage cybersecurity risks including, but not limited to, the following:

- Developing and maintaining a standardized Written Information Security Policy ("WISP"), which provides specific provisions pertaining to employee training, network security, data security, and confidential information for use and adherence by all pertinent operating entities of the Corporation;
- Developing and maintaining an Incident Response Plan ("IRP"), which provides specific directives in the event of a cyber-attack including identifying the attack, containing and eradicating the cyber-threat, avoiding and minimizing damages, reducing recovering time, and mitigating future cybersecurity risks;
- Aligning the Corporation's risk management program, as outlined in the WISP and the IRP, with the National Institute of Standards and Technology Cybersecurity Framework to prevent, detect and respond to cyber-attacks;
- Requiring all employees with access to the Corporation's networks to participate in regular and mandatory training on how to be aware of, and help defend against, cybersecurity risks, combined with periodic testing to measure the efficacy of the training efforts;

- Testing vulnerability of the Corporation's key systems to cybersecurity risks, including targeted penetration testing, tabletop incident response exercises, periodic audits by outside industry experts, and regular vulnerability scanning;
- Maintaining adequate business continuity plans and critical recovery backup systems;
- Engaging external cybersecurity experts in incident response development and management; and
- Maintaining adequate cyber insurance for damages caused by a cyber-attack.

The Corporation's information security program is managed by its Data Protection Manager ("DPM") and its Information Technology Department (collectively, the "IT Team"). The DPM has extensive experience in cyber and global data protection initiatives with the Corporation and reports directly to the Corporation's Chief Executive Officer. The IT Team is responsible for leading enterprise-wide cybersecurity strategy, policy, standards, architecture, and processes.

In addition, the Corporation has established a Cybersecurity Materiality Assessment Team ("CMAT") for the purpose of evaluating specific cyber incidents or a series of related incidents. It includes certain of the Corporation's senior managers with cross-functional representation from operations, finance/accounting, information technology, risk management and human resources. CMAT is responsible for assessing the potential materiality of a cyber-incident based on the actual and anticipated potential impact to the Corporation's results of operations, financial position and cash flows; operations including disruptions and downtime; strategic plans; confidential information; employee and community health and safety; customers and vendors; investors; regulatory compliance; and reputation.

Engage Third Parties

As part of the Corporation's cybersecurity risk management process, the Corporation engages a range of third parties, including consultants and advisors, to assist with security assessments and operations, employee training and awareness, compliance, penetration testing, network and endpoint monitoring, threat intelligence, and the Corporation's vulnerability management platform. These relationships enable the Corporation to access specialized knowledge and insights with respect to its cybersecurity strategies and processes.

Risks from Cybersecurity Threats

From time to time, the Corporation has experienced attempts by unauthorized parties to access or disrupt its information technology systems. To date, it has not experienced any known material breaches or material losses related to cyber-attacks. However, a failure of the Corporation's information systems or a cybersecurity breach could materially and adversely affect its business, results of operations and financial condition. See additional information provided under Item 1A, *Risk Factors*. The Corporation manages its cybersecurity risk by limiting its threat landscape. For example, the Corporation does not store, transmit or process many of the types of data commonly targeted in cyber-attacks, such as consumer credit card or financial information. The Corporation recognizes cyber-threats are a permanent part of the risk landscape, and new threats are constantly evolving. For these and other reasons, cybersecurity is a top risk management priority.

Monitoring Cybersecurity Incidents

The Corporation's efforts to prevent and detect cybersecurity incidents include continuous monitoring of the Corporation's networks. Employees throughout the Corporation are trained to report cybersecurity threats as they are identified. If an incident occurs or is suspected, it is reported to the DPM who completes an initial assessment of the incident and assigns a priority level, as outlined in the IRP, to the incident. Simultaneously, the DPM initiates the review process with CMAT and proceeds with the remediation process for recovery and eradication.

The CMAT assesses potential materiality of the confirmed or suspected security incident based on the actual or anticipated potential impact to the Corporation's results of operations, financial position and cash flows; operations including disruptions and downtime; strategic plans; confidential information; employee and community health and safety; customers and vendors; investors; regulatory compliance; and reputation.

The DPM reviews any material cybersecurity threats or incidents, as defined in the IRP, with the Audit Committee when they occur and non-material threats or incidents on a regular basis. Materiality of a cybersecurity threat or incident gives consideration to the potential and actual impact of the cybersecurity threat or incident.

Board of Directors Oversight

The Audit Committee of the Board of Directors (the "Audit Committee") oversees and reviews the design and effectiveness of the Corporation's cybersecurity program and its contingency plans and provides regular reports to the Board of Directors of the Corporation. The DPM provides periodic reports to the Audit Committee, the Corporation's Chief Executive Officer, Chief Financial

Officer, and other members of senior management at each of the Audit Committee meetings and in the event of a cyber incident deemed material. These reports include updates on the Corporation's cyber risks and threats, the status of projects to strengthen its information security systems, assessments of the information security program, and the emerging threat landscape.

ITEM 2. PROPERTIES

The location and general character of the principal locations in each segment are included in the below summary. All domestic locations are leased and foreign locations are owned, unless otherwise noted. In addition, the Corporation has sales offices located in several foreign countries. See [Note 4, Property, Plant and Equipment](#), and [Note 9, Debt](#), to the Consolidated Financial Statements for disclosure of properties held as collateral.

Company and Location	Principal Use	Approximate Square Footage	Type of Construction
FORGED AND CAST ENGINEERED PRODUCTS SEGMENT			
<i>Union Electric Steel Corporation</i> Route 18 Burgettstown, PA 15021*	Manufacturing facilities	296,800 on 55 acres	Metal and steel
726 Bell Avenue Carnegie, PA 15106*	Manufacturing facilities and offices	165,900 on 8.7 acres	Metal and steel
U.S. Highway 30 Valparaiso, IN 46383*	Manufacturing facilities	88,000 on 20 acres	Metal and steel
1712 Greengarden Road Erie, PA 16501*	Manufacturing facilities	40,000 on 1 acre	Metal and steel
<i>Union Electric Steel UK Limited</i> Coulthards Lane Gateshead, England	Manufacturing facilities and offices	274,000 on 10 acres	Steel framed, metal and brick
<i>Åkers Sweden AB</i> Bruksallén 12SE-647 51 Åkers Styckebruk, Sweden	Manufacturing facilities and offices	394,000 on 162 acres	Steel framed, metal and brick
<i>Åkers Valji Ravne d.o.o.</i> Koroška c. 14 SI-2390 Ravne na Koroškem, Slovenia	Manufacturing facilities and offices	106,000 on 2.1 acres	Brick
<i>Shanxi Åkers TISCO Roll Co., Ltd.</i> No. 2 Jian Cao Ping Taiyuan, Shanxi, China	Manufacturing facilities and offices	338,000 on 14.6 acres	Metal, steel and brick
<i>Alloys Unlimited and Processing, LLC</i> 3760 Oakwood Avenue Austintown, OH 44515*	Manufacturing facilities and offices	69,800 on 1.5 acres	Steel framed and cement block

Company and Location	Principal Use	Approximate Square Footage	Type of Construction
AIR AND LIQUID PROCESSING SEGMENT			
<i>Air & Liquid Systems Corporation</i>			
<i>Aerofin Division</i> 4621 Murray Place Lynchburg, VA 24506*	Manufacturing facilities and offices	146,000 on 15.3 acres	Brick, concrete and steel
<i>Buffalo Air Handling Division</i> 467 Zane Snead Drive Amherst, VA 24531*	Manufacturing facilities and offices	89,000 on 19.5 acres	Metal and steel
4201 Murray Place Lynchburg, VA 24501*	Manufacturing facilities and offices	69,700 on 8.6 acres	Metal and cement block
<i>Buffalo Pumps Division</i> 874 Oliver Street N. Tonawanda, NY 14120*	Manufacturing facilities and offices	94,000 on 9 acres	Metal, brick and cement block

* Facility is leased.

Most of the Corporation's domestic real property locations are subject to sale and leaseback financing transactions with STORE, including its manufacturing facilities. See [Note 9](#), *Debt*, to the Consolidated Financial Statements.

UES subleases office space to the Corporation. The Corporation further subleases a portion of its office space to Air & Liquid for use as its headquarters.

The Corporation believes all of the owned facilities are adequate and suitable for their respective purposes.

The forge roll facilities of the FCEP segment operated within 75% to 85% of their normal capacity during 2023. The cast roll facilities of the FCEP segment operated within 70% to 80% of normal operating capacity during 2023, primarily due to soft European demand. The facilities of the ALP segment operated within 70% to 80% of their normal capacity. Normal capacity is defined as capacity under approximately normal conditions with allowances made for unavoidable interruptions such as lost time for repairs, maintenance, breakdowns, set-up, failure, supply delays, labor shortages and absences, Sundays, holidays, vacation, and inventory taking. The number of work shifts is also taken into consideration.

ITEM 3. LEGAL PROCEEDINGS

LITIGATION

The Corporation and its subsidiaries may become involved in various claims and lawsuits incidental to their businesses. In addition, claims have been asserted alleging personal injury from exposure to asbestos-containing components historically used in some products manufactured by predecessors of Air & Liquid. Air & Liquid and, in some cases, the Corporation, are defendants (among a number of defendants, often in excess of 50) in cases filed in various state and federal courts. See [Note 20](#), *Litigation*, to the Consolidated Financial Statements. The Corporation believes appropriate reserves have been established.

ENVIRONMENTAL

The Corporation is currently performing certain remedial actions in connection with the sale of real estate previously owned and periodically incurs costs to maintain compliance with environmental laws and regulations. Environmental exposures are difficult to assess and estimate for numerous reasons, including lack of reliable data, the multiplicity of possible solutions, the years of remedial and monitoring activity required, and identification of new sites. The Corporation believes appropriate reserves have been established. See [Note 22](#), *Environmental Matters*, to the Consolidated Financial Statements.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

– PART II –

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The shares of common stock of Ampco-Pittsburgh Corporation are traded on the New York Stock Exchange (symbol AP). The Corporation paid cash dividends on common shares in every year since 1965 through mid-2017. In June 2017, the Corporation announced it would suspend quarterly cash dividends, beginning with the second quarter of 2017.

The Series A warrants are traded on the NYSE American Exchange (symbol AP WS). Each warrant entitles the holder with the right to purchase 0.4464 shares of common stock of Ampco-Pittsburgh Corporation.

The number of registered shareholders at December 31, 2023 and 2022 equaled 348 and 356, respectively.

The number of registered warrant holders at each of December 31, 2023 and 2022 equaled 21.

ITEM 6. RESERVED

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

(in thousands, except per share amounts)

THE BUSINESS

Ampco-Pittsburgh Corporation and its subsidiaries (collectively, the "Corporation") manufacture and sell highly engineered, high-performance specialty metal products and customized equipment utilized by industry throughout the world. It operates in two business segments – the *Forged and Cast Engineered Products* ("FCEP") segment and the *Air and Liquid Processing* ("ALP") segment. This segment presentation is consistent with how the Corporation's chief operating decision-maker evaluates financial performance and makes resource allocation and strategic decisions about the business.

The FCEP segment produces forged hardened steel rolls, cast rolls and forged engineered products ("FEP"). Forged hardened steel rolls are used primarily in hot and cold rolling mills by producers of steel, aluminum and other metals. Cast rolls, which are produced in a variety of iron and steel qualities, are used mainly in hot strip mills, medium/heavy section mills, roughing mills, and plate mills. FEP principally are sold to customers in the steel distribution market, oil and gas industry and the aluminum and plastic extrusion industries. The segment has operations in the United States, England, Sweden, Slovenia, and an equity interest in three joint venture companies in China. Collectively, the segment primarily competes with European, Asian and North and South American companies in both domestic and foreign markets and operates several sales offices located throughout the world.

The ALP segment includes Aerofin, Buffalo Air Handling and Buffalo Pumps, all divisions of Air & Liquid Systems Corporation ("Air & Liquid"), a wholly owned subsidiary of the Corporation. Aerofin produces custom-engineered finned tube heat exchange coils and related heat transfer products for a variety of industries including OEM/commercial, nuclear power generation and industrial manufacturing. Buffalo Air Handling produces large custom-designed air handling systems for institutional (e.g., hospital, university), pharmaceutical and general industrial building markets. Buffalo Pumps manufactures centrifugal pumps for the fossil-fueled power generation, marine defense and industrial refrigeration industries. The segment has operations in Virginia and New York with its headquarters in Carnegie, Pennsylvania. The segment utilizes an independent group of sales offices located throughout the United States and Canada.

EXECUTIVE OVERVIEW

While the Corporation currently is operating at more normal levels, when compared to the operating levels during the pandemic and immediately thereafter, it continues to be challenged by lingering global economic effects of a post-pandemic environment and repercussions from the Russia-Ukraine conflict, among other events, including:

- Periodic disruptions to the global supply chain for the Corporation, its vendors and its customers;
- Global inflationary pressures;
- Depressed business activity in Europe and Asia (specifically China); and
- Global economic uncertainty.

The Corporation is actively monitoring, and will continue to actively monitor, the geopolitical and economic consequence of these events and the potential impact on its operations, financial condition, liquidity, suppliers, industry, and workforce.

For the FCEP segment, the forged roll market in North America improved during the year driven by U.S. domestic demand and better pricing. However, expectations are for flat to declining demand during the first half of 2024 with recovery in the second half of 2024. Improved pricing and increased market share will help minimize the impact of the expected decline during the first half of 2024. The cast roll market has softened, which is expected to continue in 2024, as Europe experiences economic uncertainty, the entry of low-priced product from China and relatively high cast roll inventory levels. The FEP market continues to be challenged by increased imports and high inventory levels at bar distributors. In February 2023, Union Electric Steel Corporation ("UES"), a wholly owned subsidiary of the Corporation, announced a price increase on all new quotations and orders for forged and cast roll products. The primary focus for this segment is to maintain a strong position in the roll market and, with its previously announced capital program to upgrade existing equipment anticipated to be substantially completed by March 31, 2024, improve operational efficiencies, reduce operating costs, improve reliability, and diversify and develop FEP for use in other industries.

For the ALP segment, businesses are benefiting from steady demand and increased market share but are facing increasing production costs and supply chain issues as a result of the lingering effects from a post-pandemic environment. The segment has been implementing price increases for certain of its products to help mitigate these inflationary effects. The focus for this segment is to grow revenues, strengthen engineering and manufacturing capabilities to keep pace with growth opportunities and continue to improve its sales distribution network.

CONSOLIDATED RESULTS OF OPERATIONS OVERVIEW

The Corporation

	2023		2022	
Net Sales:				
Forged and Cast Engineered Products	\$ 303,761	72 %	\$ 299,484	77 %
Air and Liquid Processing	118,579	28 %	90,705	23 %
Consolidated	<u>\$ 422,340</u>	<u>100 %</u>	<u>\$ 390,189</u>	<u>100 %</u>
(Loss) Income from Operations:				
Forged and Cast Engineered Products	\$ 7,580		\$ 444	
Air and Liquid Processing ⁽¹⁾	(29,084)		13,686	
Corporate costs	(13,070)		(11,352)	
Consolidated	<u>\$ (34,574)</u>		<u>\$ 2,778</u>	
Backlog:				
Forged and Cast Engineered Products	\$ 247,603	65 %	\$ 252,165	68 %
Air and Liquid Processing	131,309	35 %	116,853	32 %
Consolidated	<u>\$ 378,912</u>	<u>100 %</u>	<u>\$ 369,018</u>	<u>100 %</u>

(1) (Loss) income from operations for the ALP segment includes a charge (benefit) for asbestos-related items of \$40,696 and \$(2,226) in 2023 and 2022, respectively, as more fully explained in [Note 20](#), Litigation, to the Consolidated Financial Statements.

Net sales equaled \$422,340 and \$390,189 for 2023 and 2022, respectively. While both segments contributed to the \$32,151 increase in net sales, the majority of the increase is attributable to the ALP segment. A discussion of sales by segment is included below.

(Loss) income from operations equaled \$(34,574) and \$2,778 for 2023 and 2022, respectively. Included in loss from operations for 2023 is a:

- Net charge of \$40,887 associated with the increase in the estimated costs of pending and future asbestos claims net of additional insurance recoveries and a reduction in the estimated defense-to-indemnity cost ratio from 65% to 60% (the "Asbestos-Related Charge"); and
- Credit of \$191 for proceeds received from an insolvent asbestos-related insurance carrier (the "Asbestos-Related Proceeds"); and
- Credit of \$1,874 for the reimbursement of past energy costs at one of the Corporation's foreign operations by its local government (the "Foreign Energy Credit").

By comparison, included in income from operations for 2022 is a:

- Credit of \$2,226 representing the benefit from the change in the estimated defense-to-indemnity cost ratio from 70% to 65% (the "Asbestos-Related Credit"); and
- Benefit of \$1,431 resulting from a change in how certain employees earn certain benefits (the "Change in Employee Benefit Policy"); offset by

- Charge of \$664 for excess COVID-19 subsidies received in 2020 but returned in 2022 (the "Refund of Excess COVID-19 Subsidies").

A discussion of (loss) income from operations for the Corporation's two segments is included below. Corporate costs increased in 2023, when compared to 2022, by \$1,718 due to higher employee-related costs, including long-term incentive compensation, and the prior year benefiting from a portion of the Change in Employee Benefit Policy.

Backlog equaled \$378,912 at December 31, 2023, versus \$369,018 as of December 31, 2022. Backlog represents the accumulation of firm orders on hand which: (i) are supported by evidence of a contractual arrangement, (ii) include a fixed and determinable sales price, (iii) have collectability that is reasonably assured, and (iv) generally are expected to ship within two years from the backlog reporting date. Backlog at a certain date may not be a direct measure of future revenue for a particular order because price increases, negotiated subsequently to the original order, are not included in backlog until the updated contract is received from the customer and certain surcharges are not determinable until the order is completed and ready for shipment to the customer. Approximately 13% of the backlog is expected to be released after 2024. A discussion of backlog by segment is included below.

Gross margin, excluding depreciation and amortization, as a percentage of net sales was 17.7% and 15.9% for 2023 and 2022, respectively, and includes the Foreign Energy Credit for 2023 and the Refund of Excess COVID-19 Subsidies and approximately \$411 of the benefit from the Change in Employee Benefit Policy for 2022. For the FCEP segment, gross margin, excluding depreciation and amortization, improved when compared to the prior year, primarily as a result of higher pricing. For the ALP segment, gross margin, excluding depreciation and amortization, declined when compared to the prior year, primarily as a result of higher costs and an unfavorable product mix.

Selling and administrative expenses approximated \$50,884 (12.0% of net sales) and \$43,527 (11.2% of net sales) for 2023 and 2022, respectively. The increase of \$7,357 is principally due to higher employee-related costs including base salaries, short-term and long-term incentive compensation and medical insurances. In addition, the prior year benefited from the Change in Employee Benefit Policy, which reduced prior year expense by \$1,020.

Depreciation and amortization expense was comparable, equaling \$17,674 and \$17,408 for 2023 and 2022, respectively.

Charge (credit) for asbestos-related costs equaled \$40,696 and \$(2,226) for 2023 and 2022, respectively.

The charge for 2023 represents the net of:

- An increase in the estimated settlement costs of pending and future asbestos claims, net of additional insurance recoveries, of \$42,344 primarily as a result of recent experience and higher expected settlement values to resolve a claim; offset by
- A reduction in the estimated defense-to-indemnity cost ratio from 65% to 60%, based on ongoing experience and improvements in defense costs that are expected to continue, which reduced estimated costs by approximately \$1,457; and
- Asbestos-Related Proceeds of \$191.

The credit for 2022 represents a reduction in the estimated defense-to-indemnity cost ratio from 70% to 65% based on ongoing experience and improvements in defense costs.

See [Note 20, Litigation](#), to the Consolidated Financial Statements.

Investment-related income equaled \$128 and \$519 for 2023 and 2022, respectively, and represents primarily dividends received from one of the Corporation's Chinese joint ventures.

Interest expense equaled \$9,347 and \$5,434 for 2023 and 2022, respectively. The increase of \$3,913 is principally due to:

- Full year of interest on the sale and leaseback financing transactions and the equipment financing facility completed during the second half of 2022, which increased interest expense in 2023 when compared to 2022 by approximately \$2,600;
- Higher average interest rates year-over-year, which increased interest expense in 2023 when compared to 2022 by approximately \$1,700; and
- Higher average borrowings outstanding under the revolving credit facility in 2023 when compared to 2022, which increased interest expense by approximately \$600; offset by
- Higher capitalization of interest costs related to the investment in capital equipment at UES of approximately \$1,100.

Other income – net is comprised of the following:

	2023	2022	Change
Net pension and other postretirement income	\$ 5,020	\$ 6,552	\$ (1,532)
(Loss) gain on foreign exchange transactions	(692)	2,293	(2,985)
Unrealized gain (loss) on Rabbi trust investments	273	(1,144)	1,417
Other	(85)	(8)	(77)
	<u>\$ 4,516</u>	<u>\$ 7,693</u>	<u>\$ (3,177)</u>

Other income – net fluctuated primarily due to:

- Lower pension and other postretirement income due to higher interest costs on employee benefit obligations as a result of higher discount rates used to measure expense in 2023 versus 2022; and
- Changes in foreign exchange gains and losses; offset by
- Changes in unrealized gains and losses in the market value of the Rabbi trust investments corresponding to the volatility in the financial markets.

Income tax benefit (provision) equaled \$1,158 and \$(1,576) for 2023 and 2022, respectively, and includes income taxes associated with the Corporation's profitable operations. An income tax benefit is not able to be recognized on losses of certain of the Corporation's entities since it is "more likely than not" the asset will not be realized. Accordingly, changes in the income tax provision for each period includes the effects of changes in the pre-tax income of the Corporation's profitable operations in each jurisdiction.

The income tax benefit (provision) includes expense of \$203 and \$165 for 2023 and 2022, respectively, resulting from the revaluation of the deferred income tax assets of the ALP segment following new legislation enacted in 2022, which will gradually decrease the Pennsylvania state income tax rate from 9.99% in 2022 to 4.99% in 2031.

In late 2022, as a result of significant increases in energy costs in the U.K., resulting primarily from the Russia-Ukraine conflict, the Corporation moved certain of its cast roll production from the U.K. to Sweden. Accordingly, profitability of the Corporation's U.K. operations has declined, and profitability of the Corporation's Sweden operations has improved. As of December 31, 2023, the Corporation's U.K. operations entered into a three-year cumulative loss position resulting in a valuation allowance to be established against the net deferred income tax assets of the U.K. operations and additional income tax expense of \$316. Given sufficient net operating loss carryforwards, currently fully offset by valuation allowances, there is no corresponding increase in the income tax expense for the Corporation's Sweden operations.

Valuation allowances are recorded against the majority of the Corporation's deferred income tax assets. The Corporation will maintain the valuation allowances until there is sufficient evidence to support the reversal of all or some portion of the valuation allowances. Given the Corporation's current earnings and anticipated future earnings in Sweden, the Corporation believes there is a reasonable possibility within the next 12 months, sufficient positive evidence may become available to allow the Corporation to conclude some portion of the valuation allowance will no longer be needed. Release of any portion of the valuation allowance would result in the recognition of deferred income tax assets on the Corporation's consolidated balance sheet and a decrease to the Corporation's income tax expense in the period the release is recorded. The exact timing and the amount of the valuation allowance released are subject to, among many items, the level of profitability achieved by the Swedish operations. Once the valuation allowance is completely reversed, a tax provision would be recognized on future earnings.

Net (loss) income attributable to Ampco-Pittsburgh was approximately \$(39,928) or \$(2.04) per common share for 2023 and \$3,416 or \$0.18 per common share for 2022.

Net loss attributable to Ampco-Pittsburgh and net loss per common share attributable to Ampco-Pittsburgh for 2023 include a net after-tax charge of \$38,011 or \$1.94 per common share associated with the Asbestos-Related Charge, the Asbestos-Related Proceeds, the Foreign Energy Credit, the increase in the valuation allowance for the Corporation's U.K. operations of \$316, and additional tax of \$203 resulting from the revaluation of the deferred income tax assets of the ALP segment following new legislation enacted in 2022, which will gradually reduce the Pennsylvania state income tax rate from 9.99% in 2022 to 4.99% in 2031.

Net income attributable to Ampco-Pittsburgh and net income per common share attributable to Ampco-Pittsburgh for 2022 include a net after-tax benefit of \$2,727 or \$0.14 per common share associated with the Asbestos-Related Credit, the Change in Employee Benefit Policy, the Refund of Excess COVID-19 Subsidies and the additional tax of \$165 resulting from the revaluation of the deferred income tax assets of the ALP segment following new legislation enacted in 2022, which will gradually reduce the Pennsylvania state income tax rate from 9.99% in 2022 to 4.99% in 2031.

Non-GAAP Financial Measures

The Corporation presents non-GAAP adjusted income (loss) from operations, which is calculated as (loss) income from operations excluding the Asbestos-Related Charge (Credit), the Asbestos-Related Proceeds, the Foreign Energy Credit, the Change in Employee Benefit Policy, and the Refund of Excess COVID-19 Subsidies, for each of the years, as applicable. This non-GAAP financial measure is not based on any standardized methodology prescribed by accounting principles generally accepted in the United States of America ("GAAP") and may not be comparable to similarly titled measures presented by other companies.

The Corporation has presented non-GAAP adjusted income (loss) from operations because it is a key measure used by the Corporation's management and Board of Directors to understand and evaluate the Corporation's operating performance and to develop operational goals for managing its business. This non-GAAP financial measure excludes significant charges or credits that are one-time charges or credits, or unrelated to the Corporation's ongoing results of operations, or beyond its control. Additionally, a portion of the incentive and compensation arrangements for certain employees is based on the Corporation's business performance. The Corporation believes this non-GAAP financial measure helps identify underlying trends in its business that otherwise could be masked by the effect of the items it excludes from adjusted income (loss) from operations. In particular, the Corporation believes the exclusion of the Asbestos-Related Charge (Credit), the Asbestos-Related Proceeds, the Foreign Energy Credit, the Change in Employee Benefit Policy, and the Refund of Excess COVID-19 Subsidies can provide a useful measure for period-to-period comparisons of the Corporation's core business performance. The Corporation also believes this non-GAAP financial measure provides useful information to management, shareholders and investors, and others in understanding and evaluating its operating results, enhancing the overall understanding of its past performance and future prospects and allowing for greater transparency with respect to key financial metrics used by the Corporation's management in its financial and operational decision-making.

Adjusted income (loss) from operations is not prepared in accordance with GAAP and should not be considered in isolation of, or as an alternative to, measures prepared in accordance with GAAP. There are limitations related to the use of adjusted income (loss) from operations rather than (loss) income from operations, which is the nearest GAAP equivalent. Among other things, there can be no assurance that additional benefits similar to the Asbestos-Related Credit, the Asbestos-Related Proceeds, the Foreign Energy Credit and the Change in Employee Benefit Policy or additional expenses similar to the Asbestos-Related Charge and the Refund of Excess COVID-19 Subsidies will not occur in future periods.

The adjustments reflected in adjusted income (loss) from operations are pre-tax. The net tax (benefit) expense associated with the adjustments is approximately \$(1,330) for 2023 and \$101 for 2022.

The following is a reconciliation of (loss) income from operations to non-GAAP adjusted income (loss) from operations for 2023 and 2022, respectively:

	2023	2022
(Loss) income from operations, as reported (GAAP)	\$ (34,574)	\$ 2,778
Asbestos-Related Charge (Credit) ⁽¹⁾	40,887	(2,226)
Asbestos-Related Proceeds ⁽²⁾	(191)	-
Foreign Energy Credit ⁽³⁾	(1,874)	-
Change in Employee Benefit Policy ⁽⁴⁾	-	(1,431)
Refund of Excess COVID-19 Subsidies ⁽⁵⁾	-	664
Income (loss) from operations, as adjusted (Non-GAAP)	\$ 4,248	\$ (215)

(1) For 2023, represents an increase in the estimated settlement costs of pending and future asbestos claims, net of additional insurance recoveries and a reduction in the estimated defense-to-indemnity cost ratio from 65% to 60%. For 2022, represents a benefit from the reduction in the estimated defense-to-indemnity cost ratio from 70% to 65%. See [Note 20, Litigation](#), to the Consolidated Financial Statements for further information.

(2) Represents proceeds received from an insolvent asbestos-related insurance carrier.

(3) Represents reimbursement of past energy costs at one of the Corporation's foreign operations by its local government.

(4) Represents a benefit resulting from a change in how certain employees earn certain benefits.

(5) Represents excess COVID-19 subsidies received in 2020 and returned in 2022.

Forged and Cast Engineered Products

	2023	2022	Change
Net sales:			
Forged and cast mill rolls	\$ 285,577	\$ 256,559	\$ 29,018
FEP	18,184	42,925	(24,741)
	<u>\$ 303,761</u>	<u>\$ 299,484</u>	<u>\$ 4,277</u>
Operating income	<u>\$ 7,580</u>	<u>\$ 444</u>	<u>\$ 7,136</u>
Backlog:			
Forged and cast mill rolls	\$ 245,063	\$ 243,648	\$ 1,415
FEP	2,540	8,517	(5,977)
	<u>\$ 247,603</u>	<u>\$ 252,165</u>	<u>\$ (4,562)</u>

Net sales increased by \$4,277 in 2023 from 2022 principally due to the net of:

- Higher volume of forged roll shipments, which increased net sales in 2023 when compared to 2022 by approximately \$27,100;
- Improved pricing, net of lower variable-index surcharges passed through to customers as a result of fluctuations in the price of raw material, energy and transportation cost, which increased net sales in 2023 when compared to 2022 by approximately \$9,400; offset by
- Lower volume of FEP shipments, which decreased net sales in 2023 when compared to 2022 by approximately \$23,300;
- Lower volume of cast roll shipments, which decreased sales in 2023 when compared to 2022 by approximately \$6,600; and
- Changes in exchange rates used to translate net sales of the segment's foreign subsidiaries into the U.S. dollar, which decreased net sales in 2023 when compared to 2022 by approximately \$2,300.

Operating income increased by \$7,136 in 2023 when compared to 2022 primarily as a result of:

- Improved pricing, net of lower variable-index surcharges and fluctuations in manufacturing costs, which increased operating income by approximately \$6,100;
- A better product mix of sales, net of a lower volume of shipments, which improved operating income in 2023 when compared to 2022 by approximately \$2,300;
- Net benefit resulting from the Foreign Energy Credit in 2023 versus the Refund of Excess COVID-19 Subsidies and the Change in Employee Benefit Policy in 2022, which improved operating income in 2023 when compared to 2022 by approximately \$1,800;
- Lower losses on the disposal of property, plant and equipment associated with equipment being replaced in connection with the segment's strategic capital expenditure program of approximately \$800; offset by
- Lower absorption resulting from the temporary and periodic idling of certain equipment to align production with customer demand, which reduced operating income in 2023 when compared to 2022 by approximately \$2,900; and
- Higher selling and administrative expenses, principally due to changes in employee-related costs and the prior year including a portion of the Change in Employee Benefit Policy, which decreased operating income in 2023 when compared to 2022 by approximately \$1,000.

Changes in exchange rates did not have a significant impact on operating income for 2023 when compared to 2022.

Backlog equaled \$247,603 at December 31, 2023, compared to \$252,165 at December 31, 2022, a decrease of \$4,562 principally due to the net of:

- Lower backlog for cast rolls resulting primarily from economic uncertainty across Europe, the entry of low-priced product from China and relatively high cast roll inventories at customers, which decreased backlog at December 31, 2023 when compared to backlog at December 31, 2022 by approximately \$7,500; and
- Lower backlog for FEP resulting primarily from softening of the energy and steel distribution markets and increased imports, which decreased backlog at December 31, 2023 when compared to backlog at December 31, 2022 by approximately \$6,000; offset by

- Higher backlog for forged rolls, driven by improved U.S. domestic demand and better pricing, which increased backlog at December 31, 2023 when compared to backlog at December 31, 2022 by approximately \$5,300; and
- Higher foreign exchange rates used to translate the backlog of the Corporation's foreign subsidiaries into the U.S. dollar, which increased backlog at December 31, 2023 when compared to backlog at December 31, 2022 by approximately \$3,600.

At December 31, 2023, approximately 4% of the backlog is expected to ship after 2024.

Air and Liquid Processing

	2023	2022	Change
Net sales:			
Heat exchange coils	\$ 45,258	\$ 31,395	\$ 13,863
Air handling systems	38,526	29,436	9,090
Centrifugal pumps	34,795	29,874	4,921
	<u>\$ 118,579</u>	<u>\$ 90,705</u>	<u>\$ 27,874</u>
Operating (loss) income ⁽¹⁾	<u>\$ (29,084)</u>	<u>\$ 13,686</u>	<u>\$ (42,770)</u>
Backlog	<u>\$ 131,309</u>	<u>\$ 116,853</u>	<u>\$ 14,456</u>

(1) For 2023, includes net expense of \$40,696 for the Asbestos-Related Charge and the Asbestos-Related Proceeds. For 2022, includes the Asbestos-Related Credit of \$(2,226). See [Note 20, Litigation](#), to the Consolidated Financial Statements for further information.

Net sales for 2023 increased from the prior year by \$27,874 on better pricing and a higher volume of shipments. More specifically:

- A higher volume of shipments to commercial, industrial and nuclear customers for heat exchange coils;
- Increased order intake for air handling systems enabled by the additional capacity provided by a third-party assembler for the earlier part of 2023 and an additional manufacturing location beginning in the latter part of 2023; and
- A higher volume of shipments to commercial and U.S. Navy-related customers for centrifugal pumps.

Operating results declined by \$42,770 in 2023 when compared to 2022 primarily due to an increase in asbestos-related costs of \$42,922. For 2023, operating results were negatively impacted by the Asbestos-Related Charge of \$40,887 offset by the Asbestos-Related Proceeds of \$191. For 2022, operating results benefited from the Asbestos-Related Credit of \$2,226. See [Note 20, Litigation](#), to the Consolidated Financial Statements for further discussion. In addition, the change in operating results from the prior year is principally due to:

- Higher volume of sales, net of higher costs and an unfavorable product mix, which improved operating results in 2023 when compared to 2022 by approximately \$3,600; offset by
- Higher selling and administrative costs, primarily as a result of higher employee-related costs and higher commissions on the higher sales, which reduced operating results in 2023 when compared to 2022 by approximately \$2,700; and
- Recognition of a \$681 benefit to operating income in 2022 resulting from the Change in Employee Benefit Policy.

Backlog at December 31, 2023 increased \$14,456 from December 31, 2022, with backlog for each product line improving as a result of record-level order intake. At December 31, 2023, approximately 28% of the backlog is expected to ship after 2024.

LIQUIDITY AND CAPITAL RESOURCES

	2023	2022	Change
Net cash flows used in operating activities	\$ (3,686)	\$ (27,208)	\$ 23,522
Net cash flows used in investing activities	(19,685)	(16,308)	(3,377)
Net cash flows provided by financing activities	21,688	42,587	(20,899)
Effect of exchange rate changes on cash and cash equivalents	234	(673)	907
Net decrease in cash and cash equivalents	(1,449)	(1,602)	153
Cash and cash equivalents at beginning of period	8,735	10,337	(1,602)
Cash and cash equivalents at end of period	<u>\$ 7,286</u>	<u>\$ 8,735</u>	<u>\$ (1,449)</u>

Net cash flows used in operating activities equaled \$(3,686) and \$(27,208) for 2023 and 2022, respectively. Investment in trade working capital stabilized in 2023, after a significant increase in 2022 in response to the higher level of business activity and higher

costs associated with inflation and supply chain disruptions. Although the Corporation recorded the Asbestos-Related Charge (Credit) in 2023 and 2022, these were non-cash charges (credits) and, accordingly, did not impact net cash flows used in operating activities. Instead, net asbestos-related payments equaled \$10,592 and \$9,126 in 2023 and 2022, respectively, and are expected to approximate \$9,000 in 2024. Asbestos-related payments are expected to continue in the foreseeable future. The amount of asbestos-related payments and corresponding insurance recoveries is difficult to predict and can vary based on a number of factors, including changes in assumptions, as outlined in [Note 20, Litigation](#), to the Consolidated Financial Statements.

Contributions to the defined benefit pension and other postretirement benefits plans equaled \$2,034 and \$2,199 in 2023 and 2022, respectively. Contributions to the defined benefit pension and other postretirement benefits plans are expected to approximate \$7,700 in 2024, primarily as a result of lower-than-expected pension asset performance in 2022, \$5,500 in 2025, \$4,400 in 2026, \$3,600 in 2027, and \$2,900 in 2028.

Net cash flows used in investing activities primarily represents expenditures for the FCEP segment. The Corporation has undertaken a significant capital program approximating \$26,000 to upgrade existing equipment at certain of its FCEP locations, which is anticipated to be substantially completed by March 31, 2024. At December 31, 2023, commitments for future capital expenditures, including those associated with the FCEP capital program, approximated \$6,000.

Net cash flows provided by financing activities equaled \$21,688 and \$42,587 for 2023 and 2022, respectively, a decrease of \$20,899 primarily due to:

- Lower net borrowings from the Corporation's revolving credit facility of \$8,412;
- Lower proceeds from sale and leaseback financing arrangements of \$20,000;
- Lower proceeds from shareholders exercising warrants for the Corporation's common stock of \$193; offset by
- Higher proceeds from the equipment financing facility of \$3,943;
- Proceeds from the Disbursement Agreement between UES and Store Capital Acquisitions, LLC for leasehold improvements of \$2,500;
- Higher net proceeds from related-party borrowings of \$672;
- Lower debt and equity issuance costs of \$337; and
- Lower debt principal payments of \$254.

The maturity date for the revolving credit facility is June 29, 2026 and, subject to the other terms and conditions of the revolving credit agreement, will become due on that date. In addition, the Corporation has Industrial Revenue Bonds ("IRB") which begin to become due in 2027. Although considered remote by the Corporation, the bonds can be put back to the Corporation on short notice if they are not able to be remarketed. Future principal payments, assuming the revolving credit facility and other debt instruments become due on their respective maturity dates and the IRBs are called in 2024, are \$12,271 for 2024, \$2,784 for 2025, \$59,067 for 2026, \$3,334 for 2027, and \$3,485 for 2028. Along with principal payments, the Corporation will be required to make regular interest payments, the amount of which will vary as the underlying benchmark rates changes. See [Note 9, Debt](#), to the Consolidated Financial Statements for further information.

The effect of exchange rate changes on cash and cash equivalents is primarily attributable to the fluctuation of the British pound and Swedish krona against the U.S. dollar.

As a result of the above, cash and cash equivalents decreased by \$1,449 during 2023 and ended the period at \$7,286 in comparison to \$8,735 at December 31, 2022. The majority of the Corporation's cash and cash equivalents is held by its foreign operations. Domestic customer remittances are used to pay down borrowings under the Corporation's revolving credit facility daily, resulting in minimal cash maintained by the Corporation's domestic operations. Cash held by the Corporation's foreign operations is considered to be permanently re-invested; accordingly, a provision for estimated local and withholding tax has not been made. If the Corporation were to remit any foreign earnings to it or any of its U.S. entities, the estimated tax impact would be insignificant.

Funds on hand, funds generated from future operations and availability under the Corporation's revolving credit facility are expected to be sufficient to finance the Corporation's operational requirements and debt service costs. As of December 31, 2023, remaining availability under the revolving credit facility approximated \$25,084, net of standard availability reserves.

Availability under the Corporation's equipment financing facility is expected to be sufficient to finance the capital program for the FCEP segment in the time frame currently anticipated. At December 31, 2023, availability under the equipment financing facility approximated \$3,281. Each borrowing on the equipment financing facility will constitute a secured loan transaction (each, a "Term Loan"). Each Term Loan will convert to a Term Note on the earlier of (i) the date in which the associated equipment is placed in service or (ii) March 31, 2024 (previously December 29, 2023). Each Term Note will have a term of 84 months in arrears fully

amortizing and will commence on the date of the Term Note. For a more thorough description of the Corporation's debt and credit documents see [Note 9, Debt](#), to the Consolidated Financial Statements.

While the Corporation anticipates it has sufficient liquidity to finance the Corporation's operational requirements, debt service costs and capital expenditures, it may from time to time consider alternatives, potential transactions and other strategies in an attempt to enhance its liquidity. Given such measures are forward looking, the Company cannot ensure it would be successful in achieving such enhancements or be able to improve its liquidity.

With respect to litigation, see [Note 20, Litigation](#), to the Consolidated Financial Statements. With respect to environmental matters, see [Note 22, Environmental Matters](#), to the Consolidated Financial Statements.

OFF-BALANCE SHEET ARRANGEMENTS

The Corporation's off-balance sheet arrangements include the previously mentioned expected future capital expenditures and letters of credit unrelated to the Industrial Revenue Bonds. See [Note 12, Commitments and Contingent Liabilities](#), to the Consolidated Financial Statements. These arrangements are not considered significant to the liquidity, capital resources, market risk, or credit risk of the Corporation.

EFFECTS OF INFLATION

Inflationary and market pressures on costs are likely to continue. Customer orders for the FCEP and ALP segments generally are expected to ship within two years from the backlog date, thereby mitigating the risk of inflation when compared to longer-term contracts. In addition, product pricing is reflective of current costs. For the FCEP segment, approximately 80% of customer orders include a commodity, energy and transportation surcharge. The ability to pass on future increases in the price of commodities for the balance of the customer orders will be negotiated on a contract-by-contract basis. To minimize the effect of future increases, including for customer orders without a surcharge, the FCEP segment has fixed pricing for a portion of its estimated electricity and natural gas usage. The ALP segment also has fixed pricing for a portion of its estimated commodity (copper and aluminum) usage.

The Corporation has long-term labor agreements at each of the key locations. Certain of these agreements will expire in 2024. As is consistent with past practice, the Corporation will negotiate with the intent to secure mutually beneficial arrangements covering multiple years.

See [Note 12, Commitments and Contingent Liabilities](#), and [Note 15, Derivative Instruments](#), to the Consolidated Financial Statements.

APPLICATION OF CRITICAL ACCOUNTING ESTIMATES

The Corporation has identified critical accounting estimates important to the presentation of its financial condition, changes in financial condition and results of operations and involve the most complex or subjective assessments. Critical accounting estimates relate to assessing recoverability of property, plant and equipment and accounting for pension and other postretirement benefits, litigation and loss contingencies, and income taxes.

Property, plant and equipment is reviewed for recoverability whenever events or circumstances indicate the carrying amount of the long-lived assets may not be recoverable. If the undiscounted cash flows generated from the use and eventual disposition of the assets are less than their carrying value, then the asset value may not be fully recoverable, resulting in a write-down of the asset value. Estimates of future cash flows are based on expected market conditions over the remaining useful life of the primary asset(s). Accordingly, assumptions are made about pricing, volume and asset-resale values. The ongoing losses of the Corporation's U.K. operations, a significant component of an asset group within the FCEP segment, were deemed to be a triggering event under ASC 360, *Property, Plant and Equipment*, causing the Corporation to evaluate whether the property, plant and equipment of the asset group was deemed to be impaired. Accordingly, in connection with preparation of its 2024 business plan in the fourth quarter of 2023, the Corporation completed a quantitative analysis of the long-lived assets for the asset group and determined the assets were not impaired. The Corporation continues to evaluate the uncertainty associated with its U.K. operations and, at December 31, 2023, there were no additional triggering events identified. Additionally, there have been no triggering events for the asset groups within the ALP segment. The Corporation believes the amounts recorded in the accompanying consolidated financial statements for property, plant and equipment are recoverable and are not impaired as of December 31, 2023.

Accounting for pension and other postretirement benefits involves estimating the cost of benefits to be provided well into the future and attributing that cost over the time period each employee works. To accomplish this, input from the Corporation's actuaries is evaluated and extensive use is made of assumptions about inflation, long-term rate of return on plan assets, longevity, employee turnover and discount rates. The curtailment of the majority of the Corporation's defined benefit pension plans and the amendment of various other postretirement benefit plans has helped to mitigate the volatility in net periodic pension and other postretirement benefit costs resulting from changes in these assumptions.

The expected long-term rate of return on plan assets is an estimate of the average rates of earnings expected to be earned on funds invested, or to be invested, to provide for the benefits included in the projected benefit obligation. Since these benefits will be paid over many years, the expected long-term rate of return is reflective of current investment returns and investment returns over a longer period. Consideration is also given to target and actual asset allocations, inflation and real risk-free return. The Corporation believes the expected long-term rate of return of 7.70% for its domestic plans and 4.60% for its foreign plans to be reasonable. Actual returns on plan assets approximated 12.41% for the domestic plans and 1.90% for the foreign plans for 2023 and, excluding 2022 due to the volatility in the financial markets during the year, 9.82% for the domestic plans and 7.62% for the foreign plans for 2017 - 2023. A percentage point decrease in the expected long-term rate of return would increase annual pension expense by approximately \$2,300. Conversely, a percentage point increase in the expected long-term rate of return would decrease annual pension expense by approximately \$2,300.

The discount rates used in determining future pension obligations and other postretirement benefits for each of the plans are based on rates of return for high-quality fixed-income investments currently available and expected to be available during the period to maturity of the pension and other postretirement benefits. High-quality fixed-income investments are defined as those investments which have received one of the two highest ratings given by a recognized rating agency with maturities of 10+ years. A 1/4 percentage point increase in the discount rate would decrease projected and accumulated benefit obligations by approximately \$5,900. Conversely, a 1/4 percentage point decrease in the discount rate would increase projected and accumulated benefit obligations by approximately \$5,900.

The Corporation believes that the amounts recorded in the accompanying consolidated financial statements related to pension and other postretirement benefits are based on assumptions that are appropriate at December 31, 2023, although actual outcomes could differ.

Litigation and loss contingency accruals are made when it is determined it is probable a liability has been incurred and the amount can be reasonably estimated. Specifically, the Corporation and certain of its subsidiaries are involved in various claims and lawsuits incidental to their businesses. In addition, claims have been asserted alleging personal injury from exposure to asbestos-containing components historically used in some products manufactured by predecessors of Air & Liquid (the "Asbestos Liability"). To assist the Corporation in determining whether an estimate could be made of the potential liability for pending and unasserted future claims for the Asbestos Liability along with applicable insurance coverage, and the amounts of any estimates, the Corporation hires a nationally recognized asbestos-liability expert and an insurance consultant. Based on their analyses, reserves for probable and reasonably estimable costs for the Asbestos Liability, including defense costs, and receivables for the insurance recoveries deemed probable, are established. These amounts rely on assumptions which are based on currently known facts and strategy.

The Corporation's policy is to evaluate the Asbestos Liability and related insurance receivables as well as the underlying assumptions on a regular basis. Key variables in these assumptions, including the ability to reasonably estimate the Asbestos Liability through the expected final date by which the Corporation expects to have settled all asbestos-related claims, are summarized in [Note 20, Litigation](#), to the Consolidated Financial Statements. Key assumptions include the number and nature of new claims to be filed each year, the average cost of disposing of each new claim, average annual defense costs, and the solvency risk with respect to the relevant insurance carriers. Other factors that may affect the Asbestos Liability and the Corporation's ability to recover under its insurance policies include uncertainties surrounding the litigation process from jurisdiction to jurisdiction and from case to case, reforms that may be made by state and federal courts and the passage of state or federal tort reform legislation. Actual expenses or insurance recoveries could be significantly higher or lower than those recorded if assumptions used in the calculations vary significantly from actual results.

The Corporation intends to continue to evaluate the Asbestos Liability and related insurance receivables as well as the underlying assumptions on a regular basis to determine whether further adjustments to the estimates are required. Due to the uncertainties surrounding asbestos litigation and insurance, these regular reviews may result in the incurrence of future charges or credits; however, the Corporation is currently unable to estimate such future changes. Adjustments, if any, to the Corporation's estimate of the Asbestos Liability and/or insurance receivables could be material to its operating results for the periods in which the adjustments to the liability or receivable are recorded, and to its liquidity and financial position when such liabilities are paid.

Accounting for income taxes includes the Corporation's evaluation of the underlying accounts, permanent and temporary differences, its tax filing positions, and interpretations of existing tax law. A valuation allowance is recorded against deferred income tax assets to reduce them to the amount that is "more likely than not" to be realized. In doing so, assumptions are made about the future profitability of the Corporation and the nature of that profitability. Actual results may differ from these assumptions. If the Corporation determined it would not be able to realize all or part of the deferred income tax assets in the future, an adjustment to the valuation allowance would be established resulting in a charge to net (loss) income. Likewise, if the Corporation determined it would be able to realize deferred income tax assets in excess of the net amount recorded, a portion of the existing valuation allowance would be released resulting in a credit to net (loss) income. As of December 31, 2023, the valuation allowance approximates \$41,041, reducing deferred income tax assets to \$3,160, an amount the Corporation believes is "more likely than not" to be realized.

The Corporation does not recognize a tax benefit in the consolidated financial statements related to a tax position taken or expected to be taken in a tax return unless it is "more likely than not" the tax authorities will sustain the tax position solely on the basis of the position's technical merits. Consideration is primarily given to legislation and statutes, legislative intent, regulations, rulings, and case law as well as their applicability to the facts and circumstances of the tax position when assessing the sustainability of the tax position. In the event a tax position no longer meets the "more likely than not" criteria, the Corporation would reverse the tax benefit by recognizing a liability and recording a charge to earnings. Conversely, if the Corporation subsequently determined a tax position met the "more likely than not" criteria, it would recognize the tax benefit by reducing the liability and recording a credit to earnings. As of December 31, 2023, based on information known to date, the Corporation believes the amount of unrecognized tax benefits for tax positions taken or expected to be taken in a tax return, which may be challenged by the tax authorities, not to be significant.

The Corporation's tax filings are subject to audits by tax authorities in the various jurisdictions in which it does business. These audits may result in assessments of additional taxes. At December 31, 2023, based on information known to date, the Corporation believes there are no pending or outstanding assessments whose resolution would require recognition in its consolidated financial statements.

See [Note 21](#), *Income Taxes*, to the Consolidated Financial Statements.

RECENTLY IMPLEMENTED AND ISSUED ACCOUNTING PRONOUNCEMENTS

See [Note 1](#), *Summary of Significant Accounting Policies*, to the Consolidated Financial Statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not applicable.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

CONSOLIDATED BALANCE SHEETS

		December 31,	
		2023	2022
<i>(in thousands, except par value)</i>			
Assets			
Current assets:			
Cash and cash equivalents		\$ 7,286	\$ 8,735
Receivables, less allowance for credit losses		78,939	72,495
Receivables from related parties		912	1,066
Inventories		124,694	121,739
Insurance receivable – asbestos, less allowance for credit losses		15,000	15,000
Contract assets		4,452	4,931
Other current assets		5,370	7,442
Total current assets		236,653	231,408
Property, plant and equipment, net		158,732	154,998
Operating lease right-of-use assets, net		4,767	3,522
Insurance receivable – asbestos, less allowance for credit losses		145,245	90,910
Deferred income tax assets		3,160	2,141
Intangible assets, net		4,947	5,194
Investments in joint ventures		2,175	2,175
Prepaid pensions		4,951	7,242
Other noncurrent assets		5,024	5,184
Total assets		\$ 565,654	\$ 502,774
Liabilities and Shareholders' Equity			
Current liabilities:			

Accounts payable		
	\$ 36,830	\$ 43,209
Accounts payable to related parties		
	401	412
Accrued payrolls and employee benefits		
	14,703	11,796
Debt – current portion		
	12,271	12,410
Operating lease liabilities – current portion		
	946	635
Asbestos liability – current portion		
	24,000	23,000
Other current liabilities		
	27,734	24,763
Total current liabilities		
	116,885	116,225
Employee benefit obligations		
	41,684	43,431
Asbestos liability		
	214,679	130,575
Long-term debt		
	116,382	93,061
Noncurrent operating lease liabilities		
	3,822	2,886
Deferred income tax liabilities		
	543	2,518
Other noncurrent liabilities		
	88	682
Total liabilities		
	494,083	389,378
Commitments and contingent liabilities (Note 12)		
Shareholders' equity:		

Common stock – par value \$

1

; authorized

40,000

shares; issued and
outstanding

19,729

shares at December 31, 2023 and

19,404

shares at December 31, 2022

19,729

19,404

Additional paid-in capital

177,196

175,656

Retained deficit

(

(

72,997

32,322

)

)

Accumulated other comprehensive loss

(

(

62,989

58,412

)

)

Total Ampco-Pittsburgh shareholders' equity

60,939

104,326

Noncontrolling interest

10,632

9,070

Total shareholders' equity

71,571

113,396

Total liabilities and shareholders' equity

565,654

502,774

\$

\$

See Notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except per share amounts)	For The Years Ended December 31,	
	2023	2022
Net sales:		
Net sales	\$ 415,319	\$ 380,255
Net sales to related parties	7,021	9,934
Total net sales	422,340	390,189
Operating costs and expenses:		
Costs of products sold (excluding depreciation and amortization)	347,781	327,996
Selling and administrative	50,884	43,527
Depreciation and amortization	17,674	17,408
Charge (credit) for asbestos-related costs, net	40,696	(2,226)
(Gain) loss on disposal of assets	(121)	706
Total operating costs and expenses	456,914	387,411
(Loss) income from operations	(34,574)	2,778
Other (expense) income:		
Investment-related income	128	519
Interest expense	(9,347)	(5,434)
Other – net	4,516	7,693
(Loss) income before income taxes	(4,703)	2,778
Income tax benefit (provision)	1,158	(1,576)
Net (loss) income	(38,119)	3,980
Less: Net income attributable to noncontrolling interest	1,809	564

Net (loss) income attributable to Ampco-Pittsburgh	(
	39,928		3,416
	<u>\$</u>	<u>)</u>	<u>\$</u>
Net (loss) income per share attributable to Ampco-Pittsburgh common shareholders:			
Basic	(
	2.04		0.18
	<u>\$</u>	<u>)</u>	<u>\$</u>
Diluted	(
	2.04		0.18
	<u>\$</u>	<u>)</u>	<u>\$</u>
Weighted-average number of common shares outstanding:			
Basic			
	19,617		19,319
Diluted			
	19,617		19,444

See Notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME

(in thousands)	For The Years Ended December 31,	
	2023	2022
Net (loss) income	(38,119 \$)	3,980 \$
Other comprehensive loss, net of income tax where applicable:		
Adjustments for changes in:		
Foreign currency translation	(3,009	11,848)
Unrecognized employee benefit costs (including effects of foreign currency translation)	(6,976)	6,825
Fair value of cash flow hedges	(4	512)
Reclassification adjustments for items included in net (loss) income:		
Amortization of unrecognized employee benefit costs	(891	1,115)
Settlement of cash flow hedges	30	387
Other comprehensive loss	(4,824)	4,033)
Comprehensive loss	(42,943)	(53)
Less: Comprehensive income (loss) attributable to noncontrolling interest	(1,562	163)
Comprehensive (loss) income attributable to Ampco-Pittsburgh	(44,505 \$)	110 \$

See Notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

<i>(in thousands)</i>	Common Stock	Additional Paid-in Capital	Retained Deficit	Accumulated Other Comprehensive Loss	Noncontrolling Interest	Total
Balance January 1, 2022			((
	19,184	174,561	35,738	55,106	9,233	112,134
	\$	\$	\$	\$	\$	\$
Stock-based compensation						
		1,665				1,665
Comprehensive loss:						
Net income			3,416		564	3,980
Other comprehensive loss				(((
				3,306	727	4,033
)))
Comprehensive loss					((
					163	53
))
Shareholder exercise of warrants (Note 13)		(
	48	48				-
)				
Issuance of common stock including excess tax benefits of \$						
0		((
	172	522				350
))
Balance December 31, 2022			((
	19,404	175,656	32,322	58,412	9,070	113,396
))		
Impact of new accounting standard (Note 2)			((
			747			747
))
Adjusted balance at January 1, 2023			((
	19,404	175,656	33,069	58,412	9,070	112,649
))		
Stock-based compensation						
		2,146				2,146
Comprehensive income (loss):						
Net (loss) income			((
			39,928		1,809	38,119
))
Other comprehensive loss				(((
				4,577	247	4,824
)))
Comprehensive income (loss)						(
					1,562	42,943
)

Issuance of common stock including excess tax benefits of \$					
0		((
	325	606		281	
))	

Balance December 31, 2023					
		((
	19,729	177,196	72,997	62,989	10,632
					71,571
	\$	\$	\$	\$	\$

See Notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)	For The Years Ended December 31,	
	2023	2022
Cash flows from operating activities:		
Net (loss) income	(3,980
	\$ 38,119)	\$
Adjustments to reconcile net (loss) income from operations to net cash flows used in operating activities:		
Depreciation and amortization	17,674	17,408
Charge (credit) for asbestos-related costs	((
	40,887	2,226
Deferred income tax expense	(468
	2,964)	
Difference between net periodic pension and other postretirement costs and contributions	((
	6,541	9,295
Stock-based compensation	((
	2,146	1,665
Non-cash provisions – net	((
	64	2,215
Other – net	((
	804	729
Changes in assets/liabilities:		
Receivables	((
	5,473	11,626
Inventories	((
	1,401	17,903
Other assets	((
	762	3,943
Insurance receivable – asbestos	((
	12,780	10,708
Asbestos liability	((
	23,374	19,834
Accounts payable	((
	6,358	1,557
Accrued payrolls and employee benefits	((
	2,740	3,892
Other liabilities	((
	2,815	885
Net cash flows used in operating activities	((
	3,686	27,208
Cash flows from investing activities:		
Purchases of property, plant and equipment	((
	20,448	16,688

Proceeds from sale of property, plant and equipment	128	17
Purchases of long-term marketable securities	(99)	(724)
Proceeds from sale of long-term marketable securities	734	1,088
Other – net	—	1
Net cash flows used in investing activities	(19,685)	(16,308)
Cash flows from financing activities:		
Proceeds from revolving credit facility	32,595	44,000
Payments on revolving credit facility	(23,673)	(26,666)
Proceeds from sale and leaseback financing arrangements	2,500	20,000
Payments on sale and leaseback financing arrangements	(268)	(346)
Proceeds from equipment financing facility	10,331	6,388
Proceeds from related party debt	1,768	5,776
Repayment of related party debt	(1,096)	(5,776)
Repayment of debt	(469)	(645)
Proceeds from shareholder exercise of warrants	—	193
Debt and equity issuance costs	—	(337)
Net cash flows provided by financing activities	21,688	42,587
Effect of exchange rate changes on cash and cash equivalents	234	673
Net decrease in cash and cash equivalents	(1,449)	(1,602)
Cash and cash equivalents at beginning of year	8,735	10,337
Cash and cash equivalents at end of year	<u>\$ 7,286</u>	<u>\$ 8,735</u>

Supplemental disclosures of cash flow information:

Income tax payments (net of refunds)

	\$	2,335	\$	896
--	----	-------	----	-----

Interest payments (net of amounts capitalized)

		7,921		5,923
--	--	-------	--	-------

Non-cash investing and financing activities:

Purchases of property, plant and equipment in accounts payable

	\$	461	\$	994
--	----	-----	----	-----

Finance lease right-of-use assets exchanged for lease liabilities

		199		1,105
--	--	-----	--	-------

Operating lease right-of-use assets exchanged for lease liabilities

		1,956		194
--	--	-------	--	-----

See Notes to Consolidated Financial Statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(dollars in thousands, except per share amounts)

Description of Business

Ampco-Pittsburgh Corporation and its subsidiaries (collectively, the "Corporation") manufacture and sell highly engineered, high-performance specialty metal products and customized equipment utilized by industry throughout the world. It operates in

two

business segments, the *Forged and Cast Engineered Products* ("FCEP") segment and the *Air and Liquid Processing* ("ALP") segment. This segment presentation is consistent with how the Corporation's chief operating decision-maker evaluates financial performance and makes resource allocation and strategic decisions about the business.

The Segments

The FCEP segment produces forged hardened steel rolls, cast rolls and forged engineered products ("FEP"). Forged hardened steel rolls are used primarily in hot and cold rolling mills by producers of steel, aluminum and other metals. Cast rolls, which are produced in a variety of iron and steel qualities, are used mainly in hot strip mills, medium/heavy section mills, roughing mills, and plate mills. FEP principally are sold to customers in the steel distribution market, oil and gas industry and the aluminum and plastic extrusion industries. The segment has operations in the United States, England, Sweden, and Slovenia and equity interests in

three

joint venture companies in China. Collectively, the segment primarily competes with European, Asian and North American and South American companies in both domestic and foreign markets and operates several sales offices located throughout the world.

The ALP segment includes Aerofin, Buffalo Air Handling and Buffalo Pumps, all divisions of Air & Liquid Systems Corporation ("Air & Liquid"), a wholly owned subsidiary of the Corporation. Aerofin produces custom-engineered finned tube heat exchange coils and related heat transfer products for a variety of industries including OEM/commercial, nuclear power generation and industrial manufacturing. Buffalo Air Handling produces large custom-designed air handling systems for institutional (e.g., hospital, university), pharmaceutical and general industrial building markets. Buffalo Pumps manufactures centrifugal pumps for the fossil-fueled power generation, marine defense and industrial refrigeration industries. The segment has operations in Virginia and New York with headquarters in Carnegie, Pennsylvania. The segment utilizes an independent group of sales offices located throughout the United States and Canada.

While the Corporation currently is operating at more normal levels, when compared to the operating levels during the pandemic and immediately thereafter, it continues to be challenged by lingering global economic effects of a post-pandemic environment and repercussions from the Russia-Ukraine conflict, among other events, including:

- Periodic disruptions to the global supply chain for the Corporation, its vendors and its customers;
- Global inflationary pressures;
- Depressed business activity in Europe and Asia (specifically China); and
- Global economic uncertainty.

The Corporation is actively monitoring, and will continue to actively monitor, the geopolitical and economic consequence of these events and the potential impact on its operations, financial condition, liquidity, suppliers, industry, and workforce.

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

The Corporation's accounting policies conform to accounting principles generally accepted in the United States of America. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant items subject to estimates and assumptions include assessing the carrying value of long-lived assets, valuing the assets and obligations related to employee benefit plans, accounting for loss contingencies associated with claims and lawsuits, and accounting for income taxes. Actual results could differ from those estimates. A summary of the significant accounting policies followed by the Corporation is presented below.

Basis of Presentation

The financial information included herein reflects the consolidated financial position of the Corporation as of December 31, 2023 and 2022, and the consolidated results of its operations and cash flows for the years then ended. Certain reclassifications of prior year's data have been made to conform to the current year presentation. These reclassifications had no impact on the Corporation's previously reported consolidated net income, cash flows or shareholders' equity.

Consolidation

The accompanying consolidated financial statements include the assets, liabilities, revenues, and expenses of all majority-owned subsidiaries and joint ventures over which the Corporation exercises control and, when applicable, entities for which the Corporation has a controlling financial interest or is the primary beneficiary. Investments in joint ventures where the Corporation owns

20
% to

50

% of the voting stock and has the ability to exercise significant influence over the operating and financial policies of the joint venture are accounted for using the equity method of accounting. Investments in joint ventures where the Corporation does not have the ability to exercise significant influence over the operating and financial policies of the joint venture are accounted for using the cost method of accounting. Investments in joint ventures are reviewed for impairment whenever events or circumstances indicate the carrying amount of the investment may not be recoverable. If the estimated fair value of the investment is less than the carrying amount and such decline is determined to be "other than temporary," then the investment may not be fully recoverable, resulting in a write-down of the investment value. Intercompany accounts and transactions are eliminated.

Cash and Cash Equivalents

Securities with purchased original maturities of three months or less are considered to be cash equivalents. The Corporation maintains cash and cash equivalents at various financial institutions which may exceed federally insured amounts.

Inventories

Inventories are valued at the lower of cost and net realizable value, which is defined as the estimated selling price in the ordinary course of business less reasonably predictable costs of completion, disposal and transportation. Cost includes the cost of raw materials, direct labor and overhead for those items manufactured but not yet sold or for which control has not yet transferred to the customer. Fixed production overhead is allocated to inventories based on normal capacity of the production facilities. In periods of abnormally high production, the amount of fixed overhead allocated to each unit of production is decreased so inventories are not measured above cost. The amount of fixed overhead allocated to inventories is not increased as a consequence of abnormally low production or plant idling. Costs for abnormal amounts of spoilage, handling costs and freight costs are charged to expense when incurred. Cost of inventories is primarily determined by the first-in, first-out ("FIFO") method.

Property, Plant and Equipment

Property, plant and equipment purchased new is recorded at cost with depreciation computed using the straight-line method over the following estimated useful lives: land improvements – 15 to 20 years; buildings – 25 to 50 years; machinery and equipment – 3 to 25 years; and other (e.g., furniture and fixtures and vehicles) – 5 to 10 years. Property, plant and equipment purchased used is recorded at cost with depreciation computed using the straight-line method over the estimated remaining useful lives. Assets under finance leases are depreciated on a straight-line basis over the shorter of the estimated useful life of the asset or the lease term. Property, plant and equipment acquired as part of a business combination is recorded at its estimated fair value with depreciation computed using the straight-line method over the estimated remaining useful lives. Expenditures that extend economic useful lives are capitalized. Routine maintenance is charged to expense. Gains or losses are recognized on retirements or disposals. Proceeds from government grants are recorded as a reduction in the purchase price of the underlying assets and amortized against depreciation over the lives of the related assets.

Property, plant and equipment is reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. If the undiscounted cash flows generated from the use and eventual disposition of the assets are less than their carrying value, then the asset value may not be fully recoverable, resulting in a write-down of the asset value. Estimates of future cash flows are based on expected market conditions over the remaining useful life of the primary asset(s). In addition, the remaining depreciation period for the impaired asset would be reassessed and, if necessary, revised.

Right-of-Use Assets

A right-of-use ("ROU") asset represents the right to use an underlying asset for the term of the lease, and the corresponding liability represents an obligation to make periodic payments arising from the lease. A determination of whether an arrangement includes a lease is made at the inception of the arrangement. ROU assets and liabilities are recognized on the consolidated balance sheet, at the commencement date of the lease, in an amount equal to the present value of the lease payments over the term of the lease calculated using the interest rate implicit in the lease arrangement or, if not known, the Corporation's incremental borrowing rate. The present value of a ROU asset also includes any lease payments made prior to commencement of the lease and excludes any lease incentives received or to be received under the arrangement. The lease term includes options to extend or terminate the lease when it is reasonably certain that such options will be exercised. Operating leases that have original terms of less than 12 months, inclusive of options to extend that are reasonably certain to be exercised, are classified as short-term leases and are not recognized on the consolidated balance sheet.

ROU assets are recorded as a noncurrent asset on the consolidated balance sheet. The corresponding liabilities are recorded as an operating lease liability, either current or noncurrent, as applicable, on the consolidated balance sheet. Operating lease costs are recognized on a straight-line basis over the lease term within costs of products sold (excluding depreciation and amortization) or selling and administrative expenses based on the use of the related ROU asset.

Intangible Assets

Intangible assets primarily consist of developed technology, customer relationships and trade name. Intangible assets with finite lives are amortized using the straight-line method over their estimated useful life, which is determined by identifying the period over which most of the cash flows are expected to be generated. Intangible assets with indefinite lives are not amortized but reviewed for impairment at least annually, as of October 1. Additionally, intangible assets, both finite- and indefinite-lived, are reviewed for impairment whenever events or changes in circumstances indicate the carrying amount of the asset may not be recoverable. For finite-lived intangible assets, if the undiscounted cash flows attributable to the assets are less than their carrying value, then the asset value may not be fully recoverable, resulting in a write-down of the asset value. For indefinite-lived intangible assets, if the discounted cash flows attributable to the assets are less than their carrying value, then the asset value may not be fully recoverable, resulting in a write-down of the asset value. If the estimate of an intangible asset's remaining useful life changes, the remaining carrying value of the intangible asset will be amortized prospectively over the revised remaining useful life.

Debt Issuance Costs

Debt issuance costs are amortized as interest expense over the scheduled maturity period of the debt. The costs related to a line-of-credit arrangement are amortized over the term of the arrangement, regardless of whether there are any outstanding borrowings. Unamortized debt issuance costs are either recognized as a direct deduction from the carrying amount of the related debt or, if related to a line-of-credit facility, as an other noncurrent asset on the consolidated balance sheet.

Product Warranty

A warranty that ensures basic functionality is an assurance-type warranty. A warranty that goes beyond ensuring basic functionality is considered a service-type warranty. The Corporation provides assurance-type warranties; it does not provide service-type warranties. Provisions for assurance-type warranties are recognized at the time the underlying sale is recorded. The provision is based on historical experience as a percentage of sales adjusted for probable and known claims.

Employee Benefit Plans

Funded Status

If the fair value of the plan assets exceeds the projected benefit obligation, the over-funded projected benefit obligation is recognized as an asset (prepaid pensions) on the consolidated balance sheet. Conversely, if the projected benefit obligation exceeds the fair value of the plan assets, the under-funded projected benefit obligation is recognized as a liability (employee benefit obligations) on the consolidated balance sheet. Gains and losses arising from the difference between actuarial assumptions and actual experience and unamortized prior service costs are recorded as a separate component of accumulated other comprehensive loss.

Net Periodic Pension and Other Postretirement Benefit Costs

Net periodic pension and other postretirement benefit costs include service cost, interest cost, expected rate of return on the market-related value of plan assets, amortization of prior service costs, and recognized actuarial gains or losses. When actuarial gains or losses exceed

10

% of the greater of the projected benefit obligation or the market-related value of plan assets, they are amortized to net periodic pension and other postretirement benefit costs over the average remaining service period of the employees expected to receive benefits under the plan or over the remaining life expectancy of the employees expected to receive benefits if "all or almost all" of the plan's participants are inactive. When actuarial gains or losses are less than

10

% of the greater of the projected benefit obligation or the market-related value of plan assets, they are included in net periodic pension and other postretirement benefit costs indirectly as a result of lower/higher interest costs arising from a decrease/increase in the projected benefit obligation. The market-related value of plan assets is determined using a five-year moving average which recognizes gains or losses in the fair market value of assets at the rate of

20

% per year.

Warrants

Accounting for warrants includes an initial assessment of whether the warrants qualify as debt or equity. The Corporation's warrants meet the definition of equity instruments and, accordingly, are recorded within shareholders' equity on the consolidated balance sheet. The fair value of the warrants is determined as of the measurement date. Incremental costs directly attributable to the offering of the securities are deferred and charged against the proceeds of the offering.

Other Comprehensive (Loss) Income

Other comprehensive (loss) income includes changes in assets and liabilities from non-owner sources including foreign currency translation adjustments, unamortized prior service costs and unrecognized actuarial gains and losses associated with employee benefit plans, and changes in the fair value of derivatives designated and effective as cash flow hedges.

Certain components of other comprehensive (loss) income are presented net of income tax. Foreign currency translation adjustments exclude the effect of income tax since earnings of non-U.S. subsidiaries are deemed to be re-invested for an indefinite period of time.

Reclassification adjustments are amounts which are realized during the year and, accordingly, are deducted from other comprehensive (loss) income in the period in which they are included in net (loss) income or when a transaction no longer qualifies as a cash flow hedge. Foreign currency translation adjustments are included in net (loss) income upon sale or upon complete or substantially complete liquidation of an investment in a foreign entity. With respect to employee benefit plans, unamortized prior service costs are included in net (loss) income either immediately upon curtailment of the employee benefit plan or over the average remaining service period or life expectancy of the employees expected to receive benefits, and unrecognized actuarial gains and losses are included in net (loss) income indirectly as a result of lower/higher interest costs arising from a decrease/increase in the projected benefit obligation. Changes in the fair value of derivatives are included in net (loss) income when the projected sale occurs or, if a foreign currency purchase contract, over the estimated useful life of the underlying asset.

Foreign Currency Translation

Assets and liabilities of the Corporation's foreign operations are translated at year-end exchange rates, and the consolidated statements of operations are translated at the average exchange rates for the year. Gains or losses resulting from translating foreign currency financial statements are accumulated as a separate component of accumulated other comprehensive loss until the entity is sold or substantially liquidated.

Revenue Recognition

Revenue recognition requires determination of the sales price and each performance obligation, allocation of the sales price to each performance obligation, and satisfaction of each performance obligation. The sales price and performance obligations are outlined in a contract with a customer. A contract is deemed to exist when there is persuasive evidence of an arrangement, the rights and obligations of the parties are identified, the sales price is identifiable, payment terms are known, the contract has commercial substance, and collectability of consideration is probable. A contract can be in the form of an executed purchase order from the customer, combined with an order acknowledgment from the Corporation, a sales agreement or a longer-term supply agreement between the customer and the Corporation, or a similar arrangement deemed to be a normal and customary business practice for that particular customer or class of customer.

Contracts are short-term in nature with the time between commencement of production to shipment being a few months. A contract could have a single performance obligation or multiple performance obligations for the manufacturing of product(s). For contracts with a single performance obligation, the obligation is satisfied upon transfer of control of the product to the customer. For contracts with multiple performance obligations, the Corporation accounts for individual performance obligations separately if they are distinct. If the performance obligations are not distinct and the standalone selling price is not directly observable, the standalone selling price is estimated maximizing the use of observable inputs. The sales price is allocated to each performance obligation based on the relative standalone selling price of each performance obligation to the total consideration of the contract. The standalone selling price is determined utilizing observable prices to the extent available.

The sales price required to be paid by the customer is identifiable from the contract. It is not subject to refund or adjustment, except for a variable-index surcharge provision which is known at the time of shipment and increases or decreases, as applicable, the selling price of the product for corresponding changes in the published index of certain raw materials, energy and transportation costs. The variable-index surcharge is recognized as revenue when the corresponding inventory is revenue recognized.

Likelihood of collectability is assessed prior to acceptance of an order and requires the use of judgment. It considers the customer's ability and intention to pay based on a variety of factors including the customer's historical payment experience. In certain circumstances, the Corporation may require a deposit from the customer, a letter of credit or another form of assurance for payment. Customer deposits are accounted for as contract liabilities (see [Note 8](#)). An allowance for credit losses is maintained based on historical collection experience, current regional economic and market conditions, aging of accounts receivable, current creditworthiness of customers and forward-looking information (see [Note 2](#)). Payment terms are standard to the industry and generally require payment 30 days after control transfers to the customer.

Transfer of control is assessed based on the terms of the contract. Transfer of control, and therefore revenue recognition, occurs when title, ownership and risk of loss pass to the customer. Typically, this occurs when the product is shipped to the customer (i.e., FOB shipping point), delivered to the customer (i.e., FOB destination) or, for foreign sales, in accordance with trading guidelines known as

Incoterms. Incoterms are standard trade definitions used in international contracts and are developed, maintained and promoted by the ICC Commission on Commercial Law and Practice.

Certain customer contracts may include cancellation-for-convenience clauses that provide either (i) the customer with the right to acquire inventory while in-process or (ii) the Corporation with the right for reimbursement with an element of profit in the event the customer cancels. These cancellation-for-convenience clauses result in the recognition of revenue over time and prior to shipment. The amount of revenue and associated costs recognized at a reporting date is based on the costs incurred as of the reporting date in comparison to the estimated total costs to be incurred, which the Corporation believes is a faithful depiction of the transfer of control to the customer. The Corporation's right to consideration conditioned on cancellation-for-convenience clauses is recorded at each reporting date as contract assets on the consolidated balance sheets.

Shipping terms vary across the businesses and typically depend on the product, country of origin and type of transportation (truck or vessel). There are no customer-acceptance provisions other than, perhaps, customer inspection and testing prior to shipment. Post-shipment obligations are insignificant.

Amounts billed to the customer for shipping and handling are recorded within net sales and the related costs are recorded within costs of products sold (excluding depreciation and amortization). Amounts billed for taxes assessed by various government authorities (e.g., sales tax, value-added tax, etc.) are excluded from the determination of net (loss) income and, instead, are recorded as a liability until remitted to the government authority.

Stock-Based Compensation

Stock-based compensation, such as stock options, restricted stock units and performance share units, is recognized over the vesting period based on the fair value of the award at the date of grant. For stock options, the fair value is determined by the Black-Scholes option pricing model, including an estimate for forfeitures, and is expensed over the vesting period of three years. For restricted stock units, the fair value is equal to the closing price of the Corporation's common stock on the New York Stock Exchange ("NYSE") on the date of grant and is expensed over the service period, typically three years. For performance share unit awards that vest subject to a performance condition, the fair value is equal to the closing price of the Corporation's stock on the NYSE on the date of grant. For performance share unit awards that vest subject to a market condition, the fair value is determined using a Monte Carlo simulation model. The fair value of performance share unit awards is expensed over the performance period when it is probable that the performance condition will be achieved. Forfeitures resulting from failure to provide continuous service to the Corporation throughout the service period are recognized as they occur. Forfeitures resulting from failure to achieve the performance or market condition of an award are recognized when the performance or market condition is not met.

Asbestos-Related Costs

The amounts recorded for asbestos-related liabilities and asbestos-related insurance receivables rely on assumptions based on currently known facts and strategies. Asbestos-related liabilities are recognized when a liability is probable of occurrence and can be reasonably estimated. The liability includes an estimate of future claims and estimated settlement and defense costs to be incurred to resolve both pending and future unasserted claims over the period which such claims can be reasonably estimated. Asbestos-related insurance receivables are recognized for the estimated amount of probable insurance recoveries attributable to the claims for which an asbestos-related liability has been recognized, including the portion of defense costs expected to be reimbursed. Neither the asbestos-related liabilities nor the asbestos-related insurance receivables are discounted to their present values due to the inability to reliably forecast the timing of future cash flows. The asbestos-related liabilities, asbestos-related insurance receivables, sufficiency of the allowance for expected credit losses, and the underlying assumptions are reviewed on a regular basis to determine whether any adjustments to the estimates are required. If it is determined there is an increase in asbestos-related liabilities net of insurance recoveries, then a charge to net (loss) income would be recorded. Similarly, if it is determined there is a decrease in asbestos-related liabilities net of insurance recoveries, then a credit to net (loss) income would be recorded.

Derivative Instruments

Derivative instruments which include forward exchange (for foreign currency sales and purchases) and futures contracts are recorded on the consolidated balance sheet as either an asset or a liability measured at their fair value. The accounting for changes in the fair value of a derivative depends on the use of the derivative. To the extent that a derivative is designated and effective as a cash flow hedge of an exposure to future changes in value, the change in the fair value of the derivative is deferred in accumulated other comprehensive loss. Any portion considered to be ineffective, including that arising from the unlikelihood of an anticipated transaction to occur, is reported as a component of earnings (other income/expense) immediately.

Upon occurrence of the anticipated sale, the foreign currency sales contract designated and effective as a cash flow hedge is de-designated as a fair value hedge, and the change in fair value previously deferred in accumulated other comprehensive loss is reclassified to earnings (net sales) with subsequent changes in fair value recorded as a component of earnings (other income/expense). Upon occurrence of the anticipated purchase, the foreign currency purchase contract is settled, and the change in fair value deferred in

accumulated other comprehensive loss is reclassified to earnings (depreciation and amortization expense) over the life of the underlying asset. Upon settlement of a futures contract, the change in fair value deferred in accumulated other comprehensive loss is reclassified to earnings (costs of products sold, excluding depreciation and amortization) when the corresponding inventory is sold and revenue is recognized. To the extent a derivative is designated and effective as a hedge of an exposure to changes in fair value, the change in the derivative's fair value will be offset in the consolidated statement of operations by the change in the fair value of the item being hedged and is recorded as a component of earnings (other income/expense). Cash flows associated with the derivative instruments are recorded as a component of operating activities on the consolidated statement of cash flows.

The Corporation does not enter into derivative transactions for speculative purposes and, therefore, holds no derivative instruments for trading purposes.

Fair Value

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. A hierarchy of inputs is used to determine fair value measurements with three levels. Level 1 inputs are quoted prices in active markets for identical assets or liabilities and are considered the most reliable evidence of fair value. Level 2 inputs are observable prices that are not quoted on active exchanges. Level 3 inputs are unobservable inputs used for measuring the fair value of assets or liabilities.

Legal Costs

Legal costs expected to be incurred in connection with loss contingencies are accrued when such costs are probable and estimable.

Income Taxes

Income taxes are recognized during the year in which transactions enter into the determination of financial statement income (loss). Any taxes on foreign income in excess of a deemed return on tangible assets of foreign corporations are accounted for as period costs. Deferred income tax assets and liabilities are recognized for the future tax consequences of temporary differences between the book carrying amount and the tax basis of assets and liabilities including net operating loss carryforwards. A valuation allowance is provided against a deferred income tax asset when it is "more likely than not" the asset will not be realized. Similarly, if a determination is made that it is "more likely than not" the deferred income tax asset will be realized, the related valuation allowance would be reduced and a benefit to earnings would be recorded. Penalties and interest are recognized as a component of the income tax provision.

Tax benefits are recognized in the consolidated financial statements for tax positions taken or expected to be taken in a tax return when it is "more likely than not" the tax authorities will sustain the tax position solely on the basis of the position's technical merits. Consideration is given primarily to legislation and statutes, legislative intent, regulations, rulings, and case law as well as their applicability to the facts and circumstances of the tax position when assessing the sustainability of the tax position. In the event a tax position no longer meets the "more likely than not" criteria, the tax benefit is reversed by recognizing a liability and recording a charge to earnings. Conversely, if a tax position subsequently meets the "more likely than not" criteria, a tax benefit would be recognized by reducing the liability and recording a credit to earnings.

Earnings Per Common Share

Basic earnings per common share is computed by dividing net (loss) income by the weighted-average number of common shares outstanding for the period. Unvested director shares considered outstanding for voting purposes are excluded from the calculation of the weighted-average number of common shares outstanding for the period. The computation of diluted earnings per common share is similar to basic earnings per common share except the denominator is increased to include the dilutive effect of the net additional common shares that would have been outstanding assuming exercise of outstanding stock awards and warrants, calculated using the treasury stock method. The computation of diluted earnings per share would not assume the exercise of an outstanding stock award or warrant if the effect on earnings per common share would be antidilutive. Similarly, the computation of diluted earnings per share would not assume the exercise of outstanding stock awards and warrants if the Corporation incurred a net loss since the effect on earnings per common share would be antidilutive. The weighted-average number of common shares outstanding assuming exercise of dilutive stock awards and warrants was

19,617,497
for 2023 and

19,444,083

for 2022. Weighted-average outstanding stock awards and warrants excluded from the diluted earnings per common share calculation, since the effect would have been antidilutive, were

5,340,364
for 2023 and

5,339,002

for 2022. With respect to amounts attributable to Ampco-Pittsburgh common shareholders, net (loss) income attributable to Ampco-Pittsburgh common shareholders excludes net (loss) income attributable to noncontrolling interest.

Recently Issued Accounting Pronouncements

In November 2023, the Financial Accounting Standards Board ("FASB") issued Accounting Standard Update ("ASU") 2023-07, *Segment Reporting - Improvements to Reportable Segment Disclosures*. The guidance requires disclosure of significant reportable segment expenses regularly provided to the chief operating decision maker and included within each reported measure of a segment's profit or loss. The guidance also requires disclosure of the title and position of the individual identified as the chief operating decision maker and an explanation of how the chief operating decision maker uses the reported measures of a segment's profit or loss in assessing segment performance and deciding how to allocate resources. The guidance does not change how an entity identifies its operating segments, aggregates those operating segments, or applies the quantitative thresholds to determine its reportable segments. The guidance becomes effective for the Corporation's annual period beginning January 1, 2024 and interim periods beginning January 1, 2025. Early adoption is permitted. The Corporation is currently evaluating the impact this new standard will have on its consolidated financial statements disclosures. It will not, however, impact the Corporation's consolidated financial position, results of operations or cash flows.

In December 2023, the FASB issued ASU 2023-09, *Income Taxes - Improvements to Income Tax Disclosures*. The guidance requires annual disclosure of specific categories of information within the effective tax rate reconciliation and income taxes paid and income tax expense disaggregated by jurisdiction. The guidance becomes effective for the Corporation's annual period beginning January 1, 2025. Early adoption is permitted. The Corporation is currently evaluating the impact this new standard will have on its consolidated financial statements disclosures. It will not, however, impact the Corporation's consolidated financial position, results of operations or cash flows.

Recently Adopted Accounting Pronouncements

In September 2016, the FASB issued ASU 2016-13, *Financial Instruments – Credit Losses*, which adds a new impairment model, known as the current expected credit loss ("CECL") model, based on expected losses rather than incurred losses. Under the new guidance, an entity recognizes an allowance for its estimate of expected credit losses and applies it to most debt instruments, trade receivables, lease receivables, financial guarantee contracts, and other loan commitments. The CECL model does not have a minimum threshold for recognition of impairment losses and entities will need to measure expected credit losses on assets having a low risk of loss. The guidance became effective for the Corporation, and the Corporation adopted the guidance, effective January 1, 2023 and recorded an adjustment to opening retained deficit of \$

747

for the expected losses on trade receivables of \$

271

(see [Note 2](#)) and insurance receivable - asbestos of \$

476

(see [Note 20](#)).

NOTE 2 - ALLOWANCE FOR CREDIT LOSSES (TRADE RECEIVABLES)

Trade receivables are reported on the consolidated balance sheet at the amount due, adjusted for any allowance for credit losses. The Corporation provides an allowance for credit losses to reduce trade receivables to their estimated net realizable value equal to the amount expected to be collected. The allowance for credit losses is estimated based on historical collection experience, current regional economic and market conditions, aging of accounts receivable, current creditworthiness of customers, and forward-looking information. The use of forward-looking information is based on certain macroeconomic and microeconomic indicators including, but not limited to, regional business environment risk, political risk, and commercial and financing risks.

The Corporation reviews its allowance for credit losses to ensure its reserves for credit losses reflect regional and end-customer industry risk trends as well as current and future global operating conditions.

The allowance for credit losses on trade receivables was \$

975

as of December 31, 2023. The comparable allowance for doubtful accounts was \$

763

as of December 31, 2022.

NOTE 3 – INVENTORIES:

Inventories as of December 31, 2023 and 2022 were comprised of the following:

	2023	2022
Raw materials		
	\$ 51,794	\$ 42,736
Work-in-progress		
	48,676	48,809
Finished goods		
	17,332	23,231
Supplies		
	6,892	6,963
Inventories		
	\$ 124,694	\$ 121,739

NOTE 4 – PROPERTY, PLANT AND EQUIPMENT:

Property, plant and equipment as of December 31, 2023 and 2022 was comprised of the following:

	2023	2022
Land and land improvements		
	\$ 9,025	\$ 9,887
Buildings and leasehold improvements		
	71,063	62,102
Machinery and equipment		
	366,044	339,134
Construction-in-process		
	11,514	16,005
Other		
	6,965	6,706
	464,611	433,834
Accumulated depreciation	((
	305,879	278,836
))
Property, plant and equipment, net		
	\$ 158,732	\$ 154,998

Certain of the above property, plant and equipment are held as collateral including:

- The land and building of Union Electric Steel UK Limited ("UES-UK"), an indirect subsidiary of the Corporation, with a book value equal to approximately \$

2,701
(£

2,122

) at December 31, 2023, are held as collateral by the trustees of the UES-UK defined benefit pension plan (see [Note 11](#)).

- Certain of the machinery and equipment and assets under construction, with a book value equal to \$

16,719

at December 31, 2023, purchased with proceeds from the equipment financing facility (see [Note 9](#)) are held as collateral for the equipment financing facility.

- Certain land and land improvements and buildings and leasehold improvements are included in the sale and leaseback financing transactions and disbursement agreement (see [Note 9](#)). Title to these assets lies with the lender; however, since the transactions qualified as financing transactions, versus sales, the assets remain recorded on the Corporation's consolidated balance sheet.

- The remaining assets, other than real property, are pledged as collateral for the Corporation's revolving credit facility (see [Note 9](#)).

In 2023, UES completed certain leasehold improvements at the Carnegie, Pennsylvania manufacturing facility with the \$

2,500

of proceeds from the disbursement agreement (see [Note 9](#)). The improvements are being amortized over the remaining lease term of 20 years .

In 2021, the Corporation began a \$

26,000

long-term strategic capital program to upgrade existing equipment at certain of its FCEP locations. Interest capitalized for the strategic capital program for 2023 and 2022 totaled \$

1,522

and \$

435

, respectively.

The gross value of assets under finance leases and the related accumulated amortization approximated \$

4,223

and \$

1,959

as of December 31, 2023, respectively, and \$

3,917
and \$

1,577
as of December 31, 2022, respectively. Depreciation expense approximated \$

17,317
and \$

17,040
, including depreciation of assets under finance leases of approximately \$

333
and \$

496
, for the years ended December 31, 2023 and 2022, respectively.

The ongoing losses of the Corporation's U.K. operations, a significant component of an asset group within the FCEP segment, was deemed to be a triggering event under ASC 360, *Property, Plant and Equipment*, causing the Corporation to evaluate whether the property, plant and equipment of the asset group was deemed to be impaired. Accordingly, in connection with preparation of its 2024 business plan in the fourth quarter of 2023, the Corporation completed a quantitative analysis of the long-lived assets for the asset group and determined the assets were

no
t impaired. The Corporation continues to evaluate the uncertainty associated with its U.K. operations. At December 31, 2023, there were no additional triggering events identified and there have been no triggering events for the asset groups within the ALP segment.

NOTE 5 – OPERATING LEASE RIGHT-OF-USE ASSETS:

The manufacturing facilities of one of the Corporation's cast roll joint ventures in China are located on land leased by the joint venture from the other partner. The land lease commenced in 2007, the date the joint venture was formed, and continues through 2054, the expected end date of the joint venture, and includes variable lease payment provisions based on the land standard price prevailing in

Taiyuan, China, where the joint venture is located. In addition, the Corporation leases certain buildings, including factory and office space, with rent subject to an annual escalation as defined in each of the lease agreements.

The net book value of the right-of-use assets as of December 31, 2023 and 2022 was comprised of the following:

	2023	2022
Land		
	\$ 2,232	\$ 2,331
Buildings		
	2,195	794
Machinery and equipment		
	246	320
Other		
	94	77
Operating lease right-of-use assets, net		
	<u>\$ 4,767</u>	<u>\$ 3,522</u>

NOTE 6 – INTANGIBLE ASSETS:

Intangible assets as of December 31, 2023 and 2022 were comprised of the following:

	2023	2022
Customer relationships		
	\$ 5,442	\$ 5,375
Developed technology		
	3,913	3,847
Trade name		
	2,219	2,167
	11,574	11,389
Accumulated amortization	((
	6,627	6,195
))
Intangible assets, net		
	<u>\$ 4,947</u>	<u>\$ 5,194</u>

The trade name is an indefinite-lived asset and, accordingly, is not subject to amortization. The fluctuation between the years is due to changes in foreign currency exchange rates. The following summarizes changes in intangible assets for the years ended December 31:

	2023	2022
Balance at the beginning of the year		
	\$ 5,194	\$ 6,204
Amortization of intangible assets	((
	357	368
))
Other, primarily impact from changes in foreign currency exchange rates		(
	110	642
)

Balance at the end of the year

	4,947	5,194
\$		\$

Identifiable intangible assets are reviewed for impairment whenever events or circumstances indicate that the carrying values may not be recoverable. The ongoing losses of the Corporation's U.K. operations, a significant component of an asset group within the FCEP segment, was deemed to be a triggering event causing the Corporation to evaluate whether the identifiable intangible assets of an asset group within the FCEP segment were deemed to be impaired. Accordingly, in connection with preparation of its 2024 business plan in the fourth quarter of 2023, the Corporation completed a quantitative analysis of the identifiable intangible assets for the asset group and determined the assets were

no
t impaired. The Corporation continues to evaluate the uncertainty associated with its U.K. operations and, at December 31, 2023, there were no additional triggering events identified.

Identifiable intangible assets are expected to be amortized over a weighted-average period of approximately 11 years or \$

355
for 2024, \$

301
for 2025, \$

207
for 2026, \$

203
for 2027, \$

203
for 2028, and \$

1,459
thereafter.

NOTE 7 – INVESTMENTS IN JOINT VENTURES:

The Corporation has interests in three joint ventures:

- Shanxi Åkers TISCO Roll Co., Ltd. ("ATR") – a cast roll joint venture in China for which the Corporation accounts using the consolidated method of accounting. ATR principally manufactures and sells cast rolls for hot strip mills, steckel mills and medium plate mills.
- Anhui Baochang Roll Co., Ltd. ("Anhui") – a forged roll joint venture in China for which the Corporation accounts using the cost method of accounting. Anhui principally manufactures and sells large forged backup rolls for hot and cold strip mills.
- Jiangsu Gong-Chang Roll Co., Ltd. ("Gongchang") – a cast roll joint venture in China for which the Corporation accounts using the cost method of accounting. Gongchang principally manufactures and sells cast rolls for hot strip mills, medium/heavy section mills and plate mills.

ATR

In 2007, Åkers AB, a subsidiary of Union Electric Steel Corporation ("UES"), a wholly owned subsidiary of the Corporation, entered into an agreement with Taiyuan Iron & Steel Co., Ltd. ("TISCO") to form ATR, with Åkers AB owning

59.88

% and TISCO owning

40.12

%. Since Åkers AB is the majority shareholder, has voting rights proportional to its ownership interest and exercises control over TISCO, Åkers AB is considered the primary beneficiary and, accordingly, accounts for its investment in ATR using the consolidated method of accounting. The net assets and net income attributable to TISCO are reflected as noncontrolling interest in the consolidated financial statements.

Anhui

The Corporation has a

33

% interest in Anhui, which is recorded at cost, or \$

835

. The Corporation does not participate in the management or daily operation of Anhui, has not guaranteed any of its obligations and has no ongoing responsibilities to it. Dividends may be declared by the Board of Directors of the joint venture after allocation of after-tax profits to various "funds" equal to the minimum amount required under Chinese law.

No

dividends were declared or received in 2023 or 2022.

Gongchang

The Corporation has a

24.03

% interest in Gongchang, which is recorded at cost, or \$

1,340

. The Corporation does not participate in the management or daily operation of Gongchang, has not guaranteed any of its obligations and has no ongoing responsibilities to it. Dividends may be declared by the Board of Directors of the joint venture after allocation of after-tax profits to various "funds" equal to the minimum amount required under Chinese law. Dividends of \$

92

and \$

504

were declared and received in 2023 and 2022, respectively.

NOTE 8 – OTHER CURRENT LIABILITIES:

Other current liabilities as of December 31, 2023 and 2022 were comprised of the following:

	2023	2022
Customer-related liabilities		
	\$ 19,915	\$ 16,771
Accrued utilities		
	1,880	2,484
Accrued sales commissions		
	1,850	1,681
Other		
	4,089	3,827
Other current liabilities	\$ 27,734	\$ 24,763

Customer-related liabilities primarily include liabilities for product warranty claims and deposits received on future orders. The Corporation provides a limited warranty on its products, known as assurance-type warranties, and may issue credit notes or replace products free of charge for valid claims. A warranty is considered an assurance-type warranty if it provides the customer with assurance that the product will function as intended. Historically, warranty claims have been insignificant. The Corporation records a provision for estimated product warranties at the time the underlying sale is recorded. The provision is based on historical experience as a percentage of sales adjusted for probable and known claims.

Changes in the liability for product warranty claims for the years ended December 31, 2023 and 2022 consisted of the following:

	2023	2022
Balance at the beginning of the year		
	\$ 5,193	\$ 7,331
Satisfaction of warranty claims	(1,828)	(3,020)
Provision for warranty claims	1,976	1,438
Other, primarily impact from changes in foreign currency exchange rates	198	556
Balance at the end of the year	\$ 5,539	\$ 5,193

Customer deposits represent amounts collected from, or invoiced to, a customer in advance of revenue recognition. The liability for customer deposits is reversed when the Corporation satisfies its performance obligations and control of the inventory transfers to the customer, typically when title transfers. Performance obligations related to customer deposits are expected to be satisfied in less than one year .

Changes in customer deposits for the years ended December 31, 2023 and 2022 consisted of the following:

	2023	2022
Balance at the beginning of the year	10,453	4,328
	\$	\$
Satisfaction of performance obligations	(25,854)	(10,735)
Receipt of additional deposits	28,457	17,026
Other, primarily changes in foreign currency exchange rates	22	166
Balance at the end of the year	13,078	10,453
	\$	\$

NOTE 9 – DEBT:

Debt as of December 31, 2023 and 2022 was comprised of the following:

	2023	2022
Revolving credit facility	56,000	47,078
	\$	\$
Sale and leaseback financing obligations	44,488	41,011
Equipment financing facility	16,719	6,388
Industrial Revenue Bonds	9,191	9,191
Finance leases	1,590	1,803
Minority shareholder loan	665	—
Outstanding borrowings	128,653	105,471
Debt – current portion	(12,271)	(12,410)
Long-term debt	116,382	93,061
	\$	\$

The current portion of debt includes primarily swing loans under the revolving credit facility and the Industrial Revenue Bonds (“IRBs”). By definition, swing loans are temporary advances under the revolving credit facility and short-term in nature. Accordingly, swing loans are classified as a current liability until the amount is either repaid, as customers remit payments, or, if elected by the Corporation, refinanced as a longer-term loan under the revolving credit facility.

No amount was outstanding as a swing loan at December 31, 2023. Approximately \$

2,078

was outstanding as a swing loan at December 31, 2022. Although the IRBs begin to become due in 2027, the bonds can be put back to the Corporation on short notice if they are not able to be remarketed; accordingly, the IRBs are classified as a current liability, although the Corporation considers the likelihood of the bonds being put back to the Corporation to be remote. Future principal payments, assuming the IRBs are called in 2024,

are \$

12,271
for 2024, \$

2,784
for 2025, \$

59,067
for 2026, \$

3,334
for 2027, \$

3,485
for 2028, and \$

47,712
thereafter.

Revolving Credit Facility

The Corporation is a party to a revolving credit security agreement with a syndicate of banks that was amended on June 29, 2021 (the "First Amended and Restated Security Agreement"), December 17, 2021 and May 26, 2022. The First Amended and Restated Security Agreement provides for a senior secured asset-based revolving credit facility of \$

100,000
, that can be increased to \$

130,000
at the option of the Corporation and with the approval of the lenders, and an allowance of \$

20,000
for new equipment financing (see *Equipment Financing Facility* below) but, otherwise, restricts the Corporation from incurring additional indebtedness outside of the agreement, unless approved by the banks. The revolving credit facility includes sub-limits for letters of credit not to exceed \$

40,000
and European borrowings not to exceed \$

30,000
, of which up to \$

7,500
may be allocated for Swedish borrowings. The maturity date for the revolving credit facility is June 29, 2026 and, subject to other terms and conditions of the agreement, would become due on that date.

Availability under the revolving credit facility is based on eligible accounts receivable, inventory and fixed assets. Effective July 1, 2023, the Corporation migrated London Inter-Bank Offered Rate ("LIBOR")-based loans to Secured Overnight Financing Rate ("SOFR")-based loans, in accordance with the provisions specified in the revolving credit facility, coinciding with the discontinuation of LIBOR. European borrowings denominated in euros, pound sterling or krona bear interest at the Successor Rate as defined in the First Amended and Restated Security Agreement, as amended. Domestic borrowings from the revolving credit facility bear interest, at the Corporation's option, at either (i) SOFR, as adjusted, plus an applicable margin ranging between

2.00
% to

2.50
% based on the quarterly average excess availability or (ii) the alternate base rate plus an applicable margin ranging between

1.00
% to

1.50
% based on the quarterly average excess availability. As of December 31, 2023 and 2022, there were

no

European or Swedish borrowings outstanding. Additionally, the Corporation is required to pay a commitment fee of

0.25
% based on the daily unused portion of the revolving credit facility.

As of December 31, 2023, the Corporation had outstanding borrowings under the revolving credit facility of \$

56,000
. The average interest rate approximated

7.82
% for 2023 and

4.50
% for 2022. The Corporation also utilizes a portion of the revolving credit facility for letters of credit (see [Note 12](#)). As of December 31, 2023, the remaining availability under the revolving credit facility



approximated \$

25,084

, net of standard availability reserves. Deferred financing fees of \$

485

were incurred in 2021 related to the First Amended and Restated Security Agreement and are being amortized over the remaining term of the agreement.

Borrowings outstanding under the revolving credit facility are collateralized by a first priority perfected security interest in substantially all assets of the Corporation and its subsidiaries (other than real property). Additionally, the revolving credit facility contains customary affirmative and negative covenants and limitations including, but not limited to, investments in certain of its subsidiaries, payment of dividends, incurrence of additional indebtedness and guaranties, and acquisitions and divestitures. In addition, the Corporation must maintain a certain level of excess availability or otherwise maintain a minimum fixed charge coverage ratio of not less than

1.05

to 1.00. The Corporation was in compliance with the applicable bank covenants as of December 31, 2023.

Sale and Leaseback Financing Obligations

In September 2018, UES completed a sale and leaseback financing transaction with Store Capital Acquisitions, LLC ("STORE") for certain of its real property, including its manufacturing facilities in Valparaiso, Indiana and Burgettstown, Pennsylvania, and its manufacturing facility and corporate headquarters located in Carnegie, Pennsylvania (the "UES Properties").

In August 2022, Air & Liquid completed a sale and leaseback financing transaction with STORE, valued at \$

15,500

, for certain of its real property, including its manufacturing facilities in Lynchburg, Virginia and Amherst, Virginia. Net proceeds, after transaction-related costs, approximated \$

15,396

. In October 2022, Air & Liquid completed a sale and leaseback financing transaction with STORE, valued at \$

4,500

for its real property, including its manufacturing facility in North Tonawanda, New York (collectively with the Virginia properties, the "ALP Properties"). Net proceeds, after transaction-related costs, approximated \$

4,460

In connection with the August 2022 sale and leaseback financing transaction, and as modified by the October 2022 sale and leaseback financing transaction, UES and STORE entered into a Second Amended and Restated Master Lease Agreement (the "Restated Lease"), which amended and restated the existing lease agreement between UES and STORE. Pursuant to the Restated Lease, UES will lease the ALP Properties and the UES Properties (collectively, the "Properties"), subject to the terms and conditions of the Restated Lease, and UES will sublease the ALP Properties to Air & Liquid on the same terms as the Restated Lease. The Restated Lease provides for an initial term of 20 years; however, UES may extend the lease for the Properties for four successive periods of five years each. If fully extended, the Restated Lease would expire in August 2062. UES also has the option to repurchase the Properties, which it may, and intends to, exercise in 2032, for a price equal to the greater of (i) the Fair Market Value of the Properties, or (ii)

115

% of Lessor's Total Investment, with such terms defined in the Restated Lease.

In August 2022, in connection with the Restated Lease, UES and STORE entered into a Disbursement Agreement pursuant to which STORE agreed to provide up to \$

2,500

to UES towards certain improvements in the Carnegie, Pennsylvania manufacturing facility. In June 2023, UES received \$

2,500

of proceeds from the Disbursement Agreement. The annual payments for the Properties (the "Base Annual Rent") have been adjusted to repay the \$

2,500

over the balance of the initial term of the Restated Lease of 20 years. Advances under the Disbursement Agreement are secured by a first priority security interest in the leasehold improvements.

At December 31, 2023, the Base Annual Rent, including amounts due under the Disbursement Agreement, equaled \$

3,645

, payable in equal monthly installments. Each October through 2052, the Base Annual Rent will increase by an amount equal to the lesser of

2.04

% or

1.25

times the change in the consumer price index, as defined in the Restated Lease. (In October 2023, the Base Annual Rate increase was

2.04

%) The Base Annual Rent during the remaining ten years of the Restated Lease will be equal to the Fair Market Rent, as defined in the Restated Lease.

The Restated Lease and the Disbursement Agreement contain certain representations, warranties, covenants, obligations, conditions, indemnification provisions and termination provisions customary for those types of agreements.

The effective interest rate approximated

8.39
% and

6.73
% for 2023 and 2022, respectively. Deferred financing fees of \$

144
were incurred in 2022 related to the sale and leaseback of the ALP Properties and are being amortized over the initial term of the Restated Lease of 20 years .

Equipment Financing Facility

In September 2022, UES and Clarus Capital Funding I, LLC ("Clarus") entered into a Master Loan and Security Agreement, pursuant to which UES can borrow up to \$

20,000
to finance certain equipment purchases associated with a capital program at certain of the Corporation's FCEP locations (see [Note 12](#)). Each borrowing will constitute a secured loan transaction (each, a "Term Loan"). As amended December 29, 2023, each Term Loan will convert to a Term Note on the earlier of (i) the date in which the associated equipment is placed in service or (ii) March 31, 2024 (previously December 29, 2023). Each Term Note will have a term of 84 months in arrears fully amortizing, commencing on the date of the Term Note. At December 31, 2023, \$

16,719
was outstanding under the equipment financing facility comprised of \$

15,819
in Term Loans and \$

900
in Term Notes.

Effective July 1, 2023, UES and Clarus amended the Master Loan and Security Agreement increasing the interest rate on each Term Loan from an annual fixed rate of

8
% to an annual fixed rate of

10.25
%. Once converted from a Term Loan to a Term Note, interest will accrue on the Term Note at a fixed rate to be calculated by Clarus as the like-term swap rate, as reported in ICE Benchmark or

such other information service available to Clarus, for the week ending immediately prior to the commencement date for such Term Note plus

4.5

%. In December 2023, UES and Clarus further amended the Master Loan and Security Agreement to add a SOFR 'floor' to the Term Note calculation. Once converted from a Term Loan to a Term Note, interest will accrue on the Term Note at a fixed rate to be calculated by Clarus as the like-term SOFR-swap rate, as reported in ICE Benchmark or such other information service available to Clarus, for the week ending immediately prior to the commencement date for such Term Note, subject to a floor of

3.59

%, plus a SOFR adjustment of

0.31

% and a margin of

4.50

%.

The Term Loans and Term Notes are secured by a first priority security interest in and to all of UES's rights, title and interests in the underlying equipment.

On December 1, 2023, a Term Loan equaling \$

900

was converted to a Term Note with a fixed interest rate of

8.93

% per annum. Monthly payments of principal and interest of \$

14

begin January 1, 2024 and continue through December 1, 2030 . On January 1, 2024, Term Loans totaling \$

9,910

were converted to Term Notes with a fixed interest rate of

8.40

% per annum. Monthly payments of principal and interest totaling \$

156

begin February 1, 2024 and continue through January 1, 2031 . On March 1, 2024, a Term Loan equaling \$

1,873

converted to a Term Note with a fixed interest rate of

8.63

% per annum. Monthly payments of principal and interest of \$

30

begin April 1, 2024 and continue through March 1, 2031 .

Industrial Revenue Bonds

At December 31, 2023, the Corporation had the following IRBs outstanding: (i) \$

7,116

taxable IRB maturing in 2027, interest at a floating rate which averaged

5.28

% and

1.83

% for 2023 and 2022, respectively; and (ii) \$

2,075

tax-exempt IRB maturing in 2029, interest at a floating rate which averaged

3.71

% and

2.32

% for 2023 and 2022, respectively. The IRBs are secured by letters of credit of equivalent amounts and are remarketed periodically at which time the interest rates are reset. If the IRBs are not able to be remarketed, although considered a remote possibility by the Corporation, the bondholders can seek reimbursement immediately from the letters of credit; accordingly, the IRBs are recorded as current debt on the consolidated balance sheets.

Finance Leases

The Corporation leases equipment under various noncancelable lease agreements, which end between 2024 and 2028. Effective interest rates ranged between approximately

5

% and

6

% for 2023 and between approximately

2
% and

6
% for 2022. The weighted-average remaining lease term approximated 4 years at December 31, 2023 and 5 years at December 31, 2022. Cash paid for amounts included in the measurement of finance lease liabilities totaled \$

558
and \$

695
for the years ended December 31, 2023 and 2022, respectively, of which \$

90
and \$

55
were classified as operating cash flows and \$

468
and \$

640
were classified as financing cash flows in the consolidated statements of cash flows for each of the respective years.

Minority Shareholder Loan

ATR periodically has loans outstanding with its minority shareholder. Amounts borrowed and repaid approximated \$

1,768
(RMB

12,317
) and \$

1,096
(RMB

7,604
) , respectively, in 2023. Amounts borrowed and repaid approximated \$

5,776

(RMB

38,471

) in 2022. At December 31, 2023, \$

665
(RMB

4,713
) was outstanding, which was repaid in January 2024 .

No
loans were outstanding at December 31, 2022.

Interest on the borrowings equals the three-to- five-year loan interest rate set by the People's Bank of China in effect at the time of the borrowing, which approximated

4.35
% and

4.79
% for 2023 and 2022, respectively. Interest paid in 2023 approximated \$

6
(RMB

42
) . Interest paid in 2022, including interest accumulated on previous loans, approximated \$

1,766
(RMB

11,063
) .

No

interest was outstanding as of December 31, 2023 or 2022.

NOTE 10 – OPERATING LEASE LIABILITIES:

The current and noncurrent portions of the Corporation's operating lease arrangements as of December 31, 2023 and 2022 were as follows:

	2023	2022
Operating lease liabilities – current portion	\$ 946	\$ 635
Noncurrent operating lease liabilities	3,822	2,886
Total operating lease liabilities	<u>\$ 4,768</u>	<u>\$ 3,521</u>

Future operating lease payments as of December 31, 2023 were as follows:

2024	969
	\$
2025	719
2026	550
2027	503
2028	475
2029 and thereafter	3,630
Total undiscounted payments	6,846
Less: amount representing interest	(2,078)
Present value of net minimum lease payments	<u>\$ 4,768</u>

At December 31, 2023 and 2022, the weighted-average remaining lease term approximated 6.83 years and 7.86 years, respectively, and the weighted-average discount rate approximated

5.43
% and

3.97
%, respectively.

Cash paid for amounts included in the measurement of operating lease liabilities totaled \$

925
and \$

644
for the years ended December 31, 2023 and 2022, respectively, and was classified as operating cash flows in the consolidated statements of cash flows.

Short-term lease cost for leases with an original maturity of less than one year was \$

565
and \$

612
for the years ended December 31, 2023 and 2022, respectively.

NOTE 11 – PENSION AND OTHER POSTRETIREMENT BENEFITS:

U.S. Pension Benefits

The Corporation has a qualified domestic defined benefit pension plan that covers substantially all of the Corporation's U.S. employees. For all locations except one, benefit accruals and participation in the plan have been curtailed and replaced with a defined contribution pension plan. The defined benefit pension plan is covered by the Employee Retirement Income Security Act of 1974 ("ERISA"); accordingly, the Corporation's policy is to fund at least the minimum actuarially determined annual contribution required under ERISA. Minimum contributions for 2023 and 2022 approximated \$

339
and \$

444
, respectively. Minimum contributions for 2024 are expected to approximate \$

5,500

- higher than in previous years primarily as a result of a lower-than-expected pension asset performance in 2022. The fair value of the plan assets as of December 31, 2023 and 2022 approximated \$

163,929
and \$

161,374

, respectively, in comparison to accumulated benefit obligations of \$

185,839
and \$

185,210

for the same periods. Employer contributions to the defined contribution plan totaled \$

2,695
and \$

3,064

for 2023 and 2022, respectively, and are expected to approximate \$

2,800

in 2024.

The Corporation also maintained nonqualified defined benefit pension plans for selected executive officers in addition to the benefits provided under the Corporation's qualified defined benefit pension plan. Benefit accruals and participation in the plans have been curtailed. The objectives of the nonqualified plans were to provide supplemental retirement benefits or restore benefits lost due to limitations set by the Internal Revenue Service. The assets of the nonqualified plans are held in a grantor tax trust known as a "Rabbi" trust and are subject to claims of the Corporation's creditors, but otherwise must be used only for purposes of providing benefits under the plans. The fair market value of the trust at December 31, 2023 and 2022, which is included in other noncurrent assets on the consolidated balance sheets, was \$

3,245
and \$

3,353

, respectively (see [Note 16](#)). The plans are treated as non-funded pension plans for financial reporting purposes. Accordingly, benefit payments would represent employer contributions. Accumulated benefit obligations approximated \$

8,526
and \$

8,460

at December 31, 2023 and 2022, respectively.

Employees at one location participate in a multi-employer plan, *I.A.M. National Pension Fund* (employer identification number 51-6031295, plan number 002), in lieu of the Corporation's defined benefit pension plan. A multi-employer plan generally receives contributions from two or more unrelated employers pursuant to one or more collective bargaining agreements. The assets contributed by one employer may be used to fund the benefits provided to employees of other employers in the plan because the plan assets, once contributed, are not restricted to individual employers. The latest report of summary plan information (for the 2022 plan year) provided by *I.A.M. National Pension Fund* indicates:

- Approximately

955

employers were obligated to contribute to the plan;

- Approximately

100,000

active employees participate in the plan; and

- Assets of approximately \$

14.5

billion and a funded status of approximately

87.1

% .

Less than

100

of the Corporation's employees participate in the plan and contributions are based on a rate per hour. The Corporation's contributions to the plan were less than \$

300

for 2023 and 2022 and represent less than

five

percent of total contributions to the plan by all contributing employers. Contributions are expected to be less than \$

300

in 2024.



Foreign Pension Benefits

Employees of UES-UK participated in a defined benefit pension plan that was curtailed effective December 31, 2004, and replaced with a defined contribution pension plan. The plans are non-U.S. plans and, therefore, are not covered by ERISA. Employer contributions to the defined benefit pension plan, when necessary, are agreed to by the Trustees and UES-UK, based on U.K. regulations, with the objective of maintaining the self-sufficiency of the plan. Accordingly, estimated contributions are subject to change based on the future investment performance of the plan's assets. Currently, the plan is fully funded.

No contributions were required in 2023 or 2022 and none are expected in 2024. The fair value of the plan's assets as of December 31, 2023 and 2022 approximated \$ 42,338 (£ 33,257) and \$ 41,679 (£ 34,475), respectively, in comparison to accumulated benefit obligations of \$ 37,386 (£ 29,368) and \$ 34,438 (£ 28,485) for the same periods. Contributions to the defined contribution pension plan approximated \$ 235 and \$ 253 in 2023 and 2022, respectively, and are expected to approximate \$ 264 in 2024.

The Corporation has two additional foreign defined benefit pension plans, which are not funded. Accordingly, benefit payments would represent employer contributions. Projected and accumulated benefit obligations approximated \$ 5,061 and \$ 4,881 at December 31, 2023 and 2022, respectively.

Other Postretirement Benefits

The Corporation provides a monthly reimbursement of postretirement health care benefits for up to a 6 -year period principally to the bargaining groups of two subsidiaries. The plans cover participants and their spouses who retire under an existing pension plan on other than a deferred vested basis and at the time of retirement also have rendered 10 or more years of continuous service irrespective of age. Retiree life insurance is provided to those who meet applicable eligibility requirements. The Corporation's postretirement health care and life insurance plans are not funded or subject to any minimum regulatory funding requirements. Instead, benefit payments are made from the general assets of the Corporation at the time they are due.

Significant Activity

Actuarial losses (gains) in projected benefit obligations for each of the years were comprised of the following components:

U.S. Pension Benefits		Foreign Pension Benefits		Other Postretirement Benefits	
2023	2022	2023	2022	2023	2022

Changes in assumptions	((((((
	6,007	57,439	469	19,804	217	2,225
	\$	\$	\$	\$	\$	\$
Other				(((
	108	202	1,158	190	396	536
)))
Total actuarial losses (gains)	((((((
	6,115	57,237	1,627	19,994	179	2,761
	\$	\$	\$	\$	\$	\$
	<u> </u>	<u> </u>)	<u> </u>	<u> </u>)	<u> </u>)	<u> </u>)

Changes in actuarial assumptions principally include the effect of changes in discount rates which are used to estimate plan liabilities. A 1/4 percentage point decrease in the discount rate would increase projected and accumulated benefit obligations by approximately \$

5,900
. Conversely, a 1/4 percentage point increase in the discount rate would decrease projected and accumulated benefit obligations by approximately \$

5,900
. Discount rates decreased by approximately 1/3 of a percentage point at December 31, 2023 from December 31, 2022 whereas discounts rates increased by approximately 2 3/4 percentages points at December 31, 2022 from December 31, 2021.

Reconciliations

The following tables provide a reconciliation of projected benefit obligations ("PBO"), plan assets and the funded status of the plans for the Corporation's defined benefit plans calculated using a measurement date as of the end of the respective years.

	U.S. Pension Benefits ^(a)		Foreign Pension Benefits ^(b)		Other Postretirement Benefits	
	2023	2022	2023	2022	2023	2022
Change in projected benefit obligations:						
PBO at January 1						
	\$ 193,670	\$ 260,301	\$ 39,319	\$ 67,007	\$ 7,644	\$ 10,430
Service cost						
	37	51	304	286	170	234
Interest cost						
	9,941	6,185	1,859	1,079	390	220
Foreign currency exchange rate changes				(
	—	—	2,006	6,690	—	—
Actuarial losses (gains)		((((
	6,115	57,237	1,627	19,994	179	2,761
Plan amendment						
	—	—	—	—	146	—
Participant contributions						
	—	—	—	—	42	30
Benefits paid from plan assets	((((
	14,630	14,860	2,165	1,863	—	—
Benefits paid by the Corporation	((((((
	768	770	503	506	465	509
PBO at December 31						
	\$ 194,365	\$ 193,670	\$ 42,447	\$ 39,319	\$ 7,748	\$ 7,644

Change in plan assets:

Fair value of plan assets at January 1						
	\$ 161,374	\$ 214,937	\$ 41,679	\$ 71,614	\$ —	\$ —
Actual return on plan assets		((
	16,845	39,147	649	21,069	—	—
Foreign currency exchange rate changes				(
	—	—	2,175	7,003	—	—

Corporate contributions						
	1,108	1,214	503	506	423	479
Participant contributions						
					42	30
Gross benefits paid	((((((
	15,398	15,630	2,668	2,369	465	509
))))))
Fair value of plan assets at December 31						
	163,929	161,374	42,338	41,679	—	—
	\$	\$	\$	\$	\$	\$
Funded status of the plans:						
Fair value of plan assets						
	163,929	161,374	42,338	41,679	—	—
	\$	\$	\$	\$	\$	\$
Less benefit obligations						
	194,365	193,670	42,447	39,319	7,748	7,644
Funded status at December 31	(((((
	30,436	32,296	109	2,360	7,748	7,644
	\$	\$	\$	\$	\$	\$

(a) Includes the nonqualified defined benefit pension plan.

(b) Includes the over-funded U.K. defined benefit pension plan and two smaller unfunded defined benefit pension plans.

The following tables provide a summary of amounts recognized in the consolidated balance sheets at December 31, 2023 and 2022.

	U.S. Pension Benefits		Foreign Pension Benefits		Other Postretirement Benefits	
	2023	2022	2023	2022	2023	2022
Employee benefit obligations:						
Prepaid pensions ^(a)						
	\$	\$	4,951	7,242	\$	\$
	—	—			—	—
Accrued payrolls and employee benefits ^(b)	((((
	725	726	—	—	835	833
))))
Employee benefit obligations ^(c)	((((((
	29,711	31,570	5,060	4,882	6,913	6,811
))))))
Total employee benefit obligations	(((((
	30,436	32,296	109	2,360	7,748	7,644
	\$	\$	\$	\$	\$	\$
Accumulated other comprehensive loss:^(d)						
Net actuarial loss (gain)					((
	47,889	44,361	19,900	16,963	2,887	3,031
	\$	\$	\$	\$	\$	\$
Prior service cost (credit)			((((
	1	8	5,984	5,952	3,598	4,767
))))))

Total accumulated other comprehensive loss					((
	47,890	44,369	13,916	11,011	6,485	7,798
	<u>\$</u>	<u>\$</u>	<u>\$</u>	<u>\$</u>	<u>\$</u>	<u>\$</u>

- (a) Represents the over-funded U.K. defined benefit pension plan which is recorded as a noncurrent asset in the consolidated balance sheets.
- (b) Recorded as a current liability in the consolidated balance sheets.
- (c) Recorded as a noncurrent liability in the consolidated balance sheets.
- (d) Amounts are pre-tax.

As of December 31, 2023, estimated benefit payments for subsequent years are as follows:

	U.S. Pension Benefits	Foreign Pension Benefits	Other Postretirement Benefits
2024			
	\$ 15,974	\$ 2,437	\$ 857
2025			
	15,830	2,335	841
2026			
	15,622	2,427	641
2027			
	15,417	2,376	614
2028			
	15,170	2,547	595
2029-2033			
	71,276	13,229	2,601
Total benefit payments			
	<u>\$ 149,289</u>	<u>\$ 25,351</u>	<u>\$ 6,149</u>

Investment Policies and Strategies

The investment policies and strategies are determined by the Ampco-Pittsburgh Corporation Retirement Committee (the "Retirement Committee") and monitored by the Finance and Investment Committee of the Board of Directors of the Corporation for the U.S. pension plan and by the Trustees (as appointed by UES-UK and the employees of UES-UK) for the UES-UK pension plan, each of whom employ their own investment managers to manage the plan's assets in accordance with the policy guidelines. The U.S. defined benefit pension plan follows a glide-path strategy whereby target asset allocations are rebalanced based on projected payment obligations and the funded status of the plan. The U.K. defined benefit pension plan employs a liability-matching portfolio whereby a higher percentage of plan assets is invested in fixed-income securities. Pension assets of the UES-UK plan are invested with the objective of the plan maintaining self-sufficiency.

Attempts to minimize risk include allowing temporary changes to the allocation mix in response to market conditions, diversifying investments among asset categories (e.g., equity securities, fixed-income securities, alternative investments, cash and cash equivalents) and within these asset categories (e.g., economic sector, industry, geographic distribution, size) and consulting with independent financial and legal counsels to assure the investments and their expected returns and risks are consistent with the goals of the Retirement and Finance and Investment Committees or Trustees.

Investments in equity securities are primarily in common stocks of publicly traded U.S. and international companies across a broad spectrum of industry sectors. Investments in fixed-income securities are principally A-rated or better bonds with maturities of less than ten years, preferred stocks and convertible bonds. Investments in equity and fixed-income securities are either direct or through designated mutual funds. The Corporation believes there are no significant concentrations of risk associated with the plans' assets. With respect to the U.S. pension plan, the following investments are prohibited unless otherwise approved by the Board of Directors: stock of the Corporation, futures and options except for hedging purposes, unregistered or restricted stock, warrants, margin trading, short-selling, real estate excluding public or real estate partnerships, and commodities including art, jewelry and gold. The UES-UK pension plan invests in specific funds. Any investments other than those specifically identified would be considered prohibited.

The following table summarizes target asset allocations for 2023 (within +/-5% considered acceptable) and major asset categories. Certain investments are classified differently for target asset allocation purposes and external reporting purposes. The Corporation intends to continue to liquidate the alternative investments of the U.S. pension plan to provide additional flexibility with investment allocation.

	U.S. Pension Benefits			Foreign Pension Benefits		
	Target Allocation Dec. 31, 2023	Percentage of Plan Assets 2023	2022	Target Allocation Dec. 31, 2023	Percentage of Plan Assets 2023	2022
Equity securities						
	54 %	52 %	45 %	0 %	0 %	0 %
Fixed-income securities						
	43 %	41 %	49 %	89 %	90 %	89 %

Alternative investments						
	0	4	4	2	2	2
	%	%	%	%	%	%
Other (primarily cash and cash equivalents)						
	3	3	2	9	8	9
	%	%	%	%	%	%

Fair Value Measurement of Plan Assets

Equity securities, exchange-traded funds (“ETFs”), mutual funds and treasury bonds are actively traded on exchanges or broker networks and price quotes for these investments are readily available. While not quoted on active exchanges, price quotes for corporate and agency bonds are readily available. Similarly, certain commingled funds are not traded publicly, but the underlying assets (such as stocks and bonds) held in the funds are traded on active markets and the prices for the underlying assets are readily observable. For securities not actively traded, the fair value may be based on third-party appraisals, discounted cash flow analysis, benchmark yields, and inputs that are currently observable in markets for similar securities.

Investment Strategies

The significant investment strategies of the various funds are summarized below.

Fund	Investment Strategy	Primary Investment Objective
Temporary Investment Funds	Invests primarily in a diversified portfolio of investment grade money market instruments.	Achieve a market level of current income while maintaining stability of principal and liquidity.
Various Equity Funds	Each fund maintains a diversified holding in common stock of applicable companies (e.g., common stock of small capitalization companies if a small-cap fund, common stock of medium capitalization companies if a mid-cap fund, common stock of foreign corporations if an international fund, etc.).	Outperform the fund's related index.
Various Fixed-Income Funds	Invests primarily in a diversified portfolio of fixed-income securities of varying maturities or in commingled funds which invest in a diversified portfolio of fixed-income securities of varying maturities.	Achieve a rate of return that matches or exceeds the expected growth in plan liabilities.
Alternative Investments – Managed Funds	Invests in equities and equity-like asset classes and strategies (such as public equities, venture capital, private equity, real estate, natural resources, and hedged strategies) and fixed-income securities approved by the Retirement Committee.	Generate a minimum annual inflation adjusted return of 5% and outperform a traditional 70/30 equities/bond portfolio.

Categories of Plan Assets

Asset categories based on the nature and risks of the U.S. pension benefit plan's assets as of December 31, 2023 are summarized below.

	Quoted Prices in Active Markets for Identical Inputs (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Equity Securities:				
U.S.				
Consumer discretionary	3,491			3,491
	\$	\$	—	\$
Consumer staples	1,848			1,848
Energy	791			791
Financial	4,659			4,659
Healthcare	5,907			5,907
Industrials	5,117			5,117
Information technology	6,993			6,993
Materials	456			456
Mutual funds and ETFs	51,729			51,729
Real estate	209			209
Telecommunications	1,674			1,674
Utilities	211			211
International				
Consumer discretionary	64			64
Financial	437			437
Healthcare	114			114
Industrials	401			401
Information technology	306			306

Materials				
	573	—	—	573
Total Equity Securities				
	84,980	—	—	84,980
Fixed-Income Securities:				
U.S.				
Corporate bonds		32,482	—	32,482
	—			
Treasury bonds		—		23,456
	23,456			
Mutual funds and ETFs				
	7,825	—	—	7,825
International				
Corporate bonds		3,394	—	3,394
	—			
Total Fixed-Income Securities				
	31,281	35,876	—	67,157
Alternative Investments:				
Managed funds ^(a)				
	321	—	5,714	6,035
Total Alternative Investments				
	321	—	5,714	6,035
Other:				
Cash and cash equivalents ^(b)				
	5,757	—	—	5,757
Total Other				
	5,757	—	—	5,757
Total assets				
	<u>\$ 122,339</u>	<u>\$ 35,876</u>	<u>\$ 5,714</u>	<u>\$ 163,929</u>

(a) Substantially all investments are in real assets, commodities and resources, and absolute return funds.

(b) Includes investments in temporary funds.

Asset categories based on the nature and risks of the U.S. pension benefit plan's assets as of December 31, 2022 are summarized below.

	Quoted Prices in Active Markets for Identical Inputs (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Equity Securities:				
U.S.				
Consumer discretionary	2,697			2,697
	\$	\$	—	\$
Consumer staples	2,454			2,454
		—	—	
Energy	1,112			1,112
		—	—	
Financial	3,165			3,165
		—	—	
Healthcare	5,967			5,967
		—	—	
Industrials	4,222			4,222
		—	—	
Information technology	5,631			5,631
		—	—	
Materials	369			369
		—	—	
Mutual funds and ETFs	43,408			43,408
		—	—	
Real estate	279			279
		—	—	
Telecommunications	1,183			1,183
		—	—	
Utilities	324			324
		—	—	
International				
Consumer discretionary	66			66
		—	—	
Financial	450			450
		—	—	
Healthcare	123			123
		—	—	
Industrials	463			463
		—	—	
Information technology	438			438
		—	—	

Materials	646	—	—	646
Total Equity Securities	72,997	—	—	72,997
Fixed-Income Securities:				
U.S.				
Corporate bonds	—	39,047	—	39,047
Treasury bonds	26,247	—	—	26,247
Agency bonds	—	231	—	231
Mutual funds and ETFs	6,162	—	—	6,162
International				
Corporate bonds	—	5,983	—	5,983
Total Fixed-Income Securities	32,409	45,261	—	77,670
Alternative Investments:				
Managed funds ^(a)	—	—	6,569	6,569
Total Alternative Investments	—	—	6,569	6,569
Other:				
Cash and cash equivalents ^(b)	4,138	—	—	4,138
Total Other	4,138	—	—	4,138
Total assets				
	<u>\$ 109,544</u>	<u>\$ 45,261</u>	<u>\$ 6,569</u>	<u>\$ 161,374</u>

(a) Substantially all investments are in real assets, commodities and resources, and absolute return funds.

(b) Includes investments in temporary funds.

Asset categories based on the nature and risks of the foreign pension benefit plan's assets as of December 31, 2023 are summarized below.

	Quoted Prices in Active Markets for Identical Inputs (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Fixed-Income Securities:				
Commingled funds (U.K.)		25,754		25,754
	\$ —	\$ —	\$ —	\$ —
Commingled funds (International)		12,251	928	13,179
	—			
Total Fixed-Income Securities		38,005	928	38,933
	—			
Cash and cash equivalents	1,697	1,708	—	3,405
Total assets	1,697	39,713	928	42,338
	\$	\$	\$	\$

Asset categories based on the nature and risks of the foreign pension benefit plan's assets as of December 31, 2022 are summarized below.

	Quoted Prices in Active Markets for Identical Inputs (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Fixed-Income Securities:				
Commingled funds (U.K.)		24,144		24,144
	\$ —	\$ —	\$ —	\$ —
Commingled funds (International)		13,355	831	14,186
	—			
Total Fixed-Income Securities		37,499	831	38,330
	—			
Cash and cash equivalents	647	2,702	—	3,349
Total assets	647	40,201	831	41,679
	\$	\$	\$	\$

The following table sets forth a summary of changes in the fair value of the Level 3 plan assets for the U.S. and foreign pension benefit plans for the years ended December 31, 2023 and 2022.

	U.S. Pension Benefits 2023	2022	Foreign Pension Benefits 2023	2022
Fair value as of January 1	6,569	8,167	831	20,828
	\$	\$	\$	\$

Transfers to other plan assets	((((
	627	1,677	—	16,557
))	—)
Realized gains	186	526	—	1,763
			—	
Change in net unrealized (losses) gains	((((
	414	447	52	3,109
)))
Other, primarily impact from changes in foreign currency exchange rates			45	2,094
	—	—)
Fair value as of December 31				
	5,714	6,569	928	831
	\$	\$	\$	\$

Net Periodic Pension and Other Postretirement Benefit Costs

The actual return on the fair value of the plan assets is included in determining the funded status of the plans. In determining net periodic pension benefit costs, the expected long-term rate of return on the market-related value of the plan assets is used. Differences between the actual return on the fair value of the plan assets and the expected long-term rate of return on the market-related value of the plan assets are classified as part of unrecognized actuarial gains or losses and are recorded as a component of accumulated other comprehensive loss on the consolidated balance sheet. When these gains or losses exceed

10

% of the greater of the projected benefit obligation or the market-related value of plan assets, they are amortized to net periodic pension and other postretirement benefit costs over the average remaining service period or life expectancy of the employees expected to receive benefits under the plans. When the gains or losses are less than

10

% of the greater of the projected benefit obligation or the market-related value of plan assets, they are included in net periodic pension and other postretirement benefit costs indirectly as a result of lower/higher interest costs arising from a decrease/increase in the projected benefit obligation.

Net periodic pension and other postretirement benefit costs include the following components for each of the years. With the increase in interest rates during 2022, discount rates rose significantly at December 31, 2022 thereby having a significant impact on interest costs for 2023.

	U.S. Pension Benefits		Foreign Pension Benefits		Other Postretirement Benefits	
	2023	2022	2023	2022	2023	2022
Service cost						
	\$ 37	\$ 51	\$ 304	\$ 286	\$ 170	\$ 234
Interest cost						
	9,941	6,185	1,859	1,079	390	220
Expected return on plan assets	((((
	14,386	13,207	1,931	1,945	—	—
Amortization of:						
Prior service cost (credit)			((((
	8	8	271	275	1,024	1,035
Actuarial loss (gain)					((
	127	2,231	591	322	322	135
Total net periodic pension and other postretirement benefit costs	((((((
	\$ 4,273	\$ 4,732	\$ 552	\$ 533	\$ 786	\$ 716

Assumptions

Assumptions are reviewed on an annual basis. The expected long-term rate of return on plan assets is an estimate of average rates of earnings expected to be earned on funds invested, or to be invested, to provide for the benefits included in the projected benefit obligation. Since these benefits will be paid over many years, the expected long-term rate of return is reflective of current investment returns and investment returns over a longer period. Consideration is also given to target and actual asset allocations, inflation and real risk-free return. A percentage point decrease in the expected long-term rate of return would increase annual pension expense by approximately \$

2,300

. Conversely, a percentage point increase in the expected long-term rate of return would decrease annual pension expense by approximately \$

2,300

. The discount rates used in determining future pension obligations and other postretirement benefits for each of the plans are based on rates of return on high-quality fixed-income investments currently available, and expected to be available, during the period to maturity of the pension and other postretirement benefits. High-quality fixed-income investments are defined as those investments which have received one of the two highest ratings given by a recognized rating agency with maturities of 10 + years. Assumptions about wage increases are not relevant since substantially all the benefits available under the defined benefit pension plans are either frozen or based on a multiplier, versus wages.

The discount rates used to determine the benefit obligations as of December 31, 2023 and 2022 are summarized below.

	U.S. Pension Benefits		Foreign Pension Benefits		Other Postretirement Benefits	
	2023	2022	2023	2022	2023	2022
Discount rate						
	5.13	5.48				
	-	-				
	5.16	5.49	4.65	4.85	5.19	5.49
	%	%	%	%	%	%

In addition, the assumed health care cost trend rate at December 31, 2023 for other postretirement benefits is

6.60

% for 2023 gradually decreasing to

4.75

% in 2029 . In selecting rates for current and long-term health care assumptions, the Corporation considers known health care cost increases, the design of the benefit programs, the demographics of its active and retiree populations, and expectations of inflation rates in the future.

The following assumptions were used to determine net periodic pension and other postretirement benefit costs for the years ended December 31, 2023 and 2022.

	U.S. Pension Benefits		Foreign Pension Benefits		Other Postretirement Benefits	
	2023	2022	2023	2022	2023	2022
Discount rate	5.48	2.79				
	-	-				
	5.49	2.91	4.85	1.95	5.49	2.91
	%	%	%	%	%	%
Expected long-term rate of return	7.70	6.94	4.60	3.00	n/a	n/a
	%	%	%	%		

NOTE 12 – COMMITMENTS AND CONTINGENT LIABILITIES:

Outstanding standby and commercial letters of credit as of December 31, 2023 approximated \$

19,700

, of which approximately half serves as collateral for the IRB debt. In addition, outstanding surety bonds guaranteeing certain obligations of the

two

unfunded foreign defined benefit pension plans approximated \$

3,400

(SEK

33,900

) as of December 31, 2023.

The Corporation has undertaken a \$

26,000

capital program to upgrade existing equipment at certain of its FCEP locations. At December 31, 2023, commitments for future capital expenditures, including those associated with the FCEP capital program, approximated \$

6,000

.

Approximately

31
% of the Corporation's employees are covered by collective bargaining agreements or agreements with works councils that have expiration dates ranging from December 2024 to September 2026 . Collective bargaining agreements and agreements with works councils expiring in 2024 (representing approximately

35
% of the covered employees) will be negotiated with the intent to secure mutually beneficial, long-term arrangements.

See [Note 15](#) regarding derivative instruments, [Note 20](#) regarding litigation and [Note 22](#) for environmental matters.

NOTE 13 – EQUITY RIGHTS OFFERING:

In September 2020, the Corporation completed an equity rights offering, issuing

5,507,889
shares of its common stock and

12,339,256
Series A warrants to existing shareholders. The shares of common stock and warrants are classified as equity instruments in the consolidated statements of shareholders' equity. Additional proceeds may be received from the future exercise of the Series A warrants. Each Series A warrant provides the holder with the right to purchase

0.4464
shares of common stock at an exercise price of \$

2.5668
, or \$

5.75
per whole share of common stock, and expires on August 1, 2025 .

In May 2022, the Corporation filed a Tender Offer and Prospectus Supplement (the "Offer") with the Securities and Exchange Commission (the "SEC") pursuant to which the exercise price of each tendered Series A warrant was temporarily reduced. During the Offer period, the holders of Series A warrants were given the opportunity to exercise their Series A warrants at a temporarily reduced cash exercise price of \$

1.7856
per Series A warrant (or \$

4.00
per whole share of common stock). The Offer expired on July 15, 2022 . The Corporation raised \$

193
in gross proceeds resulting from the tender and exercise of

108,378
Series A warrants. Series A warrants not exercised during the Offer period reverted to their original terms including the right to purchase

0.4464
shares of common stock at an exercise price of \$

2.5668
, or \$

5.75
per whole share of common stock. Stock issuance costs approximated \$

193
and were recorded against the proceeds in additional paid-in capital. The Corporation received

no
proceeds from shareholders from the exercise of warrants in 2023.

The following summarizes outstanding warrants as of December 31, 2023 and 2022 and activity for the years then ended.

	Number of Warrants
Outstanding as of January 1, 2022	11,050,247
Converted to common stock	(108,378)
Outstanding as of December 31, 2022	10,941,869

Outstanding as of December 31, 2023

10,941,869

NOTE 14 – ACCUMULATED OTHER COMPREHENSIVE LOSS:

Net changes and ending balances for the various components of other comprehensive loss and for accumulated other comprehensive loss as of and for the years ended December 31, 2023 and 2022 are summarized below.

	Foreign Currency Translation Adjustments	Unrecognized Components of Employee Benefit Plans	Derivatives	Total Accumulated Other Comprehensive Loss	Noncontrolling Interest	Accumulated Other Comprehensive Loss Attributable to Ampco- Pittsburgh
January 1, 2022	((((((
	14,322	40,563	277	54,608	498	55,106
	\$)	\$)	\$)	\$)	\$)	\$)
Net change	((((((
	11,848	7,940	125	4,033	727	3,306
))))))
December 31, 2022	((((((
	26,170	32,623	152	58,641	229	58,412
))))))
Net change	((((((
	3,009	7,867	34	4,824	247	4,577
))))))
December 31, 2023	((((((
	23,161	40,490	186	63,465	476	62,989
	\$)	\$)	\$)	\$)	\$)	\$)

The following summarizes the line items affected on the consolidated statements of operations for components reclassified from accumulated other comprehensive loss for the years ended December 31, 2023 and 2022. Amounts in parentheses represent credits to net (loss) income.

	2023	2022
Amortization of unrecognized employee benefit costs:		
Other – net	((
	891	1,116
	\$)	\$)
Income tax provision		(
	-	1
)
Net of income tax	(
	891	1,115
	\$)	\$)
Settlement of cash flow hedges:		
Depreciation and amortization (foreign currency purchase contracts)	((
	27	27
	\$)	\$)
Costs of products sold (excluding depreciation and amortization) (futures contracts – copper and aluminum)		
	59	426
Total before income tax		
	32	399
Income tax provision	((
	2	12
))
Net of income tax		
	30	387
	\$)	\$)

The income tax effect associated with the various components of other comprehensive loss for the years ended December 31, 2023 and 2022 is summarized below. Amounts in parentheses represent credits to net (loss) income when reclassified to earnings. Certain amounts have

no

tax effect due to the Corporation having a valuation allowance recorded against the deferred income tax assets for the jurisdiction where the income or expense is recognized. Foreign currency translation adjustments exclude the effect of income taxes since earnings of non-U.S. subsidiaries are deemed to be re-invested for an indefinite period of time.

	2023	2022
Income tax effect associated with changes in:		
Unrecognized employee benefit costs		
	37	1,554
	\$)	\$)
Fair value of cash flow hedges		
	—	16
Income tax effect associated with reclassification adjustments:		
Amortization of unrecognized employee benefit costs		(
	—	1
)
Settlement of cash flow hedges	((
	2	12
))

NOTE 15 – DERIVATIVE INSTRUMENTS:

Certain divisions of the ALP segment are subject to risk from increases in the price of commodities (copper and aluminum) used in the production of inventory. To minimize this risk, futures contracts are entered into which are designated as cash flow hedges. At December 31, 2023, approximately

52
% or \$

2,746
of anticipated copper purchases over the next eight months and

% or \$

558

of anticipated aluminum purchases over the next six months are hedged. At December 31, 2022, approximately

43

% or \$

2,216

of anticipated copper purchases over the next eight months and

57

% or \$

751

of anticipated aluminum purchases over the next seven months were hedged.

The Corporation periodically enters into purchase commitments to cover a portion of its anticipated natural gas and electricity usage. The commitments qualify as normal purchases and, accordingly, are not reflected on the consolidated balance sheets. At December 31, 2023, the Corporation has purchase commitments, for

two

of its subsidiaries through December 31, 2025, covering approximately

8

% or \$

2,622

of anticipated natural gas usage and

15

% or \$

1,306

of anticipated electricity usage. At December 31, 2022, the Corporation had purchase commitments covering approximately

25

% or \$

760

of anticipated natural gas usage through December 31, 2023 for

one

of its subsidiaries and approximately

25

% or \$

1,547

of anticipated electricity usage through December 31, 2025 for

one

of its subsidiaries. Purchases of natural gas and electricity under previously existing commitments approximated \$

2,920

and \$

3,077

for 2023 and 2022, respectively.

The Corporation previously entered into foreign currency purchase contracts to manage the volatility associated with euro-denominated progress payments to be made for certain machinery and equipment. Upon occurrence of an anticipated purchase and placement of the underlying fixed asset in service, the foreign currency purchase contract was settled and the change in fair value of the foreign currency purchase contract was deferred in accumulated other comprehensive loss and is being reclassified to earnings (depreciation and amortization expense) over the life of the underlying asset (approximately 15 years).

No portion of the existing cash flow hedges is considered to be ineffective, including any ineffectiveness arising from the unlikelihood of an anticipated transaction to occur. Additionally, no amounts have been excluded from assessing the effectiveness of a hedge. The Corporation does not enter into derivative transactions for speculative purposes and, therefore, holds

no

derivative instruments for trading purposes.

The change in the fair value of the cash flow contracts is recorded as a component of accumulated other comprehensive loss. Amounts recognized as and reclassified from accumulated other comprehensive loss are recorded as a component of other comprehensive loss and are summarized below. Amounts are after-tax, where applicable. Certain amounts recognized as or reclassified from comprehensive loss for 2023 and 2022 have no tax effect due to the Corporation having a valuation allowance recorded against the deferred income tax assets for the jurisdiction where the income or expense is recognized.

For the Year Ended December 31, 2023	Beginning of the Year	Recognized	Reclassified	End of the Year
Foreign currency purchase contracts				
	108	—	27	81
	\$	\$	\$	\$
Future contracts – copper and aluminum			(
	44	4	57	105
)	
Change in fair value			(
	152	4	30	186
	\$	\$	\$	\$
)	

For the Year Ended December 31, 2022				
Foreign currency purchase contracts				
	135	—	27	108
	\$	\$	\$	\$
Future contracts – copper and aluminum		((
	142	512	414	44
))	
		((
Change in fair value	277	512	387	152
	\$	\$	\$	\$
))	

The change in fair value reclassified or expected to be reclassified from accumulated other comprehensive loss to earnings is summarized below. All amounts are pre-tax.

	Location of Gain (Loss) in Consolidated Statements of Operations	Estimated to be Reclassified in the Next 12 Months	Years Ended December 31, 2023	2022
Foreign currency purchase contracts	Depreciation and amortization	27	27	27
		\$	\$	\$
			((
Futures contracts – copper and aluminum	Costs of products sold (excluding depreciation and amortization)	105	57	414
))

(Losses) gains on foreign exchange transactions included in other (expense) income approximated \$(

692
) and \$

2,293
for 2023 and 2022, respectively.

NOTE 16 – FAIR VALUE:

The following summarizes financial assets and liabilities reported at fair value on a recurring basis in the consolidated balance sheets at December 31:

	2023	Quoted Prices in Active Markets for Identical Inputs (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Investments					
Other noncurrent assets					
		3,245	—	—	3,245
		\$	\$	\$	\$
2022					
Investments					

Other noncurrent assets

	3,353			3,353			
\$		\$	—	\$	—	\$	

The investments held as other noncurrent assets represent assets held in the "Rabbi" trust for the purpose of providing benefits under the non-qualified defined benefit pension plan. The fair value of the investments is based on quoted prices of the investments in active markets. The fair value of foreign currency exchange contracts is determined based on the fair value of similar contracts with similar terms and remaining maturities. The fair value of futures contracts is based on market quotations. The fair values of the variable-rate IRB debt and borrowings under the revolving credit facility and other debt facilities approximate their carrying values. Additionally, the fair values of trade receivables and trade payables approximate their carrying values.

NOTE 17 – REVENUE:

Net sales by geographic area and product line for the years ended December 31, 2023 and 2022 are outlined below. Net sales are attributed to the geographic areas based on the location of the customer. Sales to individual foreign countries were less than

10

% of consolidated net sales for each of the years. The majority of foreign sales are attributable to the FCEP segment.

	Net Sales by Geographic Area	
	2023	2022
United States	243,243	204,952
	\$	\$
Foreign	179,097	185,237
Consolidated total	422,340	390,189
	\$	\$
	Net Sales by Product Line	
	2023	2022
Forged and Cast Engineered Products:		
Forged and cast mill rolls	285,577	256,559
	\$	\$
Forged engineered products	18,184	42,925
Total	303,761	299,484
	\$	\$
Air and Liquid Processing:		
Heat exchange coils	45,258	31,395
Air handling systems	38,526	29,436
Centrifugal pumps	34,795	29,874
Total	118,579	90,705
	\$	\$
Consolidated total	422,340	390,189
	\$	\$

NOTE 18 – STOCK-BASED COMPENSATION:

The Ampco-Pittsburgh Corporation 2016 Omnibus Incentive Plan, as amended (the “Incentive Plan”), authorizes the issuance of up to

3,700,000

shares of the Corporation's common stock for awards under the Incentive Plan. Awards under the Incentive Plan may include incentive stock options and non-qualified stock options, stock appreciation rights, restricted shares and restricted stock units, performance awards, other stock-based awards, or short-term cash incentive awards. If any award is canceled, terminates, expires, or lapses for any reason prior to the issuance of the shares, or if the shares are issued under the Incentive Plan and thereafter are forfeited to the Corporation, the shares subject to such awards and the forfeited shares will not count against the aggregate number of shares available under the Incentive Plan. Shares tendered or withheld to pay the option exercise price or tax withholding will continue to count against the aggregate number of shares of common stock available for grant under the Incentive Plan. Any shares repurchased by the Corporation with cash proceeds from the exercise of options will not be added back to the pool of shares available for grant under the Incentive Plan.

The Incentive Plan may be administered by the Board of Directors or the Compensation Committee of the Board of Directors. The Compensation Committee has the authority to determine, within the limits of the express provisions of the Incentive Plan, the individuals to whom the awards will be

granted and the nature, amount and terms of such awards.

The Compensation Committee has granted stock options, time-vesting restricted stock units (RSUs) and performance-vesting restricted stock units (PSUs) to select individuals. Each stock option represents the right to purchase one share of common stock of the Corporation at a designated price, subject to the terms and conditions of the stock option award agreement. All stock options are fully vested. Each RSU represents the right to receive one share of common stock of the Corporation at a future date after the RSU has become earned and vested, subject to the terms and conditions of the RSU award agreement. The RSUs typically vest over a three-year period. The PSUs can be earned depending upon the achievement of a performance or market condition and a time-vesting condition as follows: (i) achievement of a targeted return on invested capital over a three-year performance period; (ii) achievement of a three-year cumulative relative total shareholder return as ranked against other companies included in the Corporation's peer group; (iii) achievement of a targeted share price for Corporation's common stock for a prescribed period during the four-year period commencing on the date of grant; and (iv) remaining continuously employed with the Corporation through either the end of the third year following the date of grant or, for the share-price performance awards, the end of the fourth year following the date of grant. Earlier vesting of the stock units is permitted under certain conditions, such as upon a change of control of the Corporation, or as approved by the Board of Directors.

The grant date fair value for the RSUs equals the closing price of the Corporation's common stock on the NYSE on the date of grant. The grant date fair value for PSUs subject to a market condition is determined using a Monte Carlo simulation model. The grant date fair value for PSUs subject to a performance condition is equal to the closing price of the Corporation's stock on the NYSE on the date of grant. The determination of the fair value of these awards takes into consideration the likelihood of achievement of the market or

performance condition and, in certain circumstances, is adjusted for subsequent changes in the estimated or actual outcome of the condition. Unrecognized compensation expense associated with the RSUs and PSUs equaled \$

2,225

at December 31, 2023, and is expected to be recognized over a weighted-average period of approximately 2 years.

Outstanding RSUs and PSUs, which would represent non-vested awards, as of December 31, 2023 and 2022, and activity for the years then ended, are summarized below. Forfeitures resulting from failure to provide continuous service to the Corporation throughout the service period are recognized as they occur. Forfeitures resulting from failure to achieve the performance or market condition of an award are recognized when the performance or market condition is not met.

	Number of RSUs	Weighted- Average Fair Value	Number of PSUs	Weighted- Average Fair Value
Outstanding at January 1, 2022				
	300,847	4.64	332,607	5.39
	\$		\$	
Granted				
	200,485	5.50	179,389	6.80
Converted to common stock	((
	142,968	4.20	52,801	4.05
))	
Forfeited	((
	15,182	5.24	62,658	3.08
))	
Outstanding at December 31, 2022				
	343,182	5.29	396,537	6.57
Granted				
	216,523	2.73	488,399	2.51
Converted to common stock	((
	159,314	4.97	60,815	5.34
))	
Forfeited	((
	9,652	4.07	156,333	6.78
))	
Outstanding at December 31, 2023				
	390,739	4.03	667,788	3.66
	\$		\$	

Outstanding stock options, all of which are fully vested, as of December 31, 2023 and 2022, and activity for the years then ended, are as follows:

	Number of Shares Under Options	Weighted- Average Exercise Price	Remaining Contractual Life In Years	Intrinsic Value
Outstanding at January 1, 2022				
	205,500	18.32	1.4	—
	\$		\$	
Expired	(
	131,500	18.16		
)			

Outstanding at December 31, 2022				
	74,000	18.60	0.8	—
Expired	(
	36,500	17.16		
)			
Outstanding at December 31, 2023				
	37,500	20.00	0.3	—
		\$	\$	
Exercisable at December 31, 2023				
	37,500	20.00	0.3	—
		\$	\$	
Vested or expected to vest at December 31, 2023				
	37,500	20.00	0.3	—
		\$	\$	

The Incentive Plan also provides for restricted stock awards during any one year to non-employee members of the Board of Directors, based on the grant date fair value, not to exceed \$

200

. The limit does not apply to shares received by a non-employee director at his or her election in lieu of all or a portion of the director's retainer for board service. The restricted stock awards vest on the one-year anniversary of the grant date. Outstanding restricted stock awards granted to non-employee members of the Board of Directors as of December 31, 2023 and 2022, and activity for the years then ended, are as follows:

	Number of Restricted Stock Awards	Weighted- Average Fair Value
Outstanding at January 1, 2022		
	85,372	5.74
		\$
Granted		
	172,735	5.50
Converted to common stock	(
	85,372	5.74
)	
Outstanding at December 31, 2022		
	172,735	5.50
Granted		
	136,371	2.79
Converted to common stock	(
	172,735	5.50
)	
Outstanding at December 31, 2023		
	136,371	2.79
		\$

Stock-based compensation expense for all awards, including expense associated with the equity-based awards granted to non-employee members of the Board of Directors, approximated \$

2,146
and \$

1,665

for 2023 and 2022, respectively. The income tax benefit recognized in the consolidated statements of operations was not significant due to the Corporation having a valuation allowance recorded against its deferred income tax assets for the jurisdiction where the expense was recognized.



NOTE 19 – RESEARCH AND DEVELOPMENT COSTS:

Expenditures relating to the development of new products, identification of products or process alternatives and modifications and improvements to existing products and processes are expensed as incurred. These expenses approximated \$

662
for 2023 and \$

1,024
for 2022.

NOTE 20 – LITIGATION:

The Corporation and its subsidiaries are involved in various claims and lawsuits incidental to their businesses from time to time and are also subject to asbestos litigation as described below.

Asbestos Litigation

Claims have been asserted alleging personal injury from exposure to asbestos-containing components historically used in some products manufactured by predecessors of Air & Liquid (the "Asbestos Liability"). Air & Liquid and, in some cases, the Corporation, are defendants (among a number of defendants, often in excess of 50 defendants) in cases filed in various state and federal courts.

Asbestos Claims

The following table reflects approximate information about the claims for the Asbestos Liability against Air & Liquid and the Corporation for the years ended December 31, 2023 and 2022 (number of claims not in thousands). The majority of the settlement and defense costs were reported and paid by insurance carriers. Because claims are often filed and can be settled or dismissed in large groups, the amount and timing of settlements, as well as the number of open claims, can fluctuate significantly from period to period.

	2023	2022
Total claims pending at the beginning of the period	6,259	6,097
New claims served	1,283	1,200
Claims dismissed	(771)	(634)
Claims settled	(461)	(404)
Total claims pending at the end of the period ⁽¹⁾	6,310	6,259
Administrative closures ⁽²⁾	(2,949)	(3,109)
Total active claims pending at the end of the period ⁽²⁾	3,361	3,150
Gross settlement and defense costs paid (in 000's)	\$ 23,374	\$ 19,834
Average gross settlement and defense costs per claim resolved (in 000's) ⁽³⁾	\$ 18.97	\$ 19.11

(1) Included as "open claims" are approximately

1,641
and

655

claims in 2023 and 2022, respectively, classified in various jurisdictions as "inactive" or transferred to a state or federal judicial panel on multi-district litigation.

(2) For 2023, administrative closures include (i) mesothelioma claims filed five or more years ago; (ii) non-mesothelioma claims filed six or more years ago; (iii) claims previously classified in various jurisdictions as "inactive;" and (iv) claims transferred to a state or federal judicial panel on multi-district litigation. For 2022, administrative closures included the same except mesothelioma claims filed six or more years ago were considered administratively closed. Collectively, these claims are unlikely to result in any liability to the Corporation.

(3) Claims resolved do not include claims that were administratively closed.

Asbestos Insurance

The Corporation and Air & Liquid are parties to a series of settlement agreements ("Settlement Agreements") with insurance carriers that have coverage obligations for the Asbestos Liability (the "Settling Insurers"). Under the Settlement Agreements, the Settling Insurers accept financial responsibility, subject to the terms and conditions of the respective agreements, including overall coverage limits, for pending and future claims for the Asbestos Liability. The Settlement Agreements encompass the majority of insurance policies that provide coverage for claims for the Asbestos Liability.

The Settlement Agreements acknowledge Howden North America, Inc. ("Howden") is entitled to coverage under policies covering the Asbestos Liability for claims arising out of the historical products manufactured or distributed by Buffalo Forge, a former subsidiary of the Corporation (the "Products"), which was acquired by Howden. The Settlement Agreements do not provide for any prioritization on access to the applicable policies or any sub-limits of liability as to Howden or the Corporation and Air & Liquid and, accordingly, Howden may access the coverage afforded by the Settling Insurers for any covered claim arising out of the Products. In general, access by Howden to the coverage afforded by the Settling Insurers for the Products will erode coverage under the Settlement Agreements available to the Corporation and Air & Liquid for the Asbestos Liability.

Asbestos Valuations

The Corporation, with the assistance of a nationally recognized expert in the valuation of asbestos liabilities, reviews the Asbestos Liability and the underlying assumptions on a regular basis to determine whether any adjustment to the Asbestos Liability or the underlying assumptions are necessary. When warranted, the Asbestos Liability is adjusted to consider current trends and new information that becomes available. In conjunction with the regular updates of the estimated Asbestos Liability, the Corporation also develops an estimate of defense costs expected to be incurred with settling the Asbestos Liability and probable insurance recoveries for the Asbestos Liability and defense costs.

In developing the estimate of probable defense costs, the Corporation considers several factors including, but not limited to, current and historical defense-to-indemnity cost ratios and expected defense-to-indemnity cost ratios. In developing the estimate of probable insurance recoveries, the Corporation considers the expert's projection of settlement costs for the Asbestos Liability and management's projection of associated defense costs. In addition, the Corporation consults with its outside legal counsel on insurance matters and a nationally recognized insurance consulting firm it retains to assist with certain policy allocation matters. The Corporation also considers a number of other factors including the Settlement Agreements in effect, policy exclusions, policy limits, policy provisions regarding coverage for defense costs, attachment points, gaps in the coverage, policy exhaustion, the nature of the underlying claims for the Asbestos Liability, estimated erosion of insurance limits on account of claims against Howden arising out of the Products, prior impairment of policies, insolvencies among certain of the insurance carriers, and creditworthiness of the remaining insurance carriers based on publicly available information. Based on these factors, the Corporation estimates the probable insurance recoveries for the Asbestos Liability and defense costs for the corresponding time frame of the Asbestos Liability.

In 2023, primarily as a result of identified changes in claim data and availability of new information, the Corporation engaged Gnarus Advisors LLC ("Gnarus") to update the estimated Asbestos Liability. The methodology used by Gnarus in its updated projection was substantially the same methodology employed previously, which has been accepted by numerous courts, and included the following factors:

- interpretation of a widely accepted forecast of the population likely to have been exposed to asbestos;
- epidemiological studies estimating the number of people likely to develop asbestos-related diseases;
- analysis of the number of people likely to file an asbestos-related injury claim against Air & Liquid and the Corporation based on such epidemiological data and relevant claims history from January 1, 2020 to September 30, 2023;
- analysis of pending cases, by type of injury claimed and jurisdiction where the claim is filed; and
- analysis of claims resolution history from January 1, 2020 to September 30, 2023, to determine the average settlement value of claims, by type of injury claimed and jurisdiction of filing.

Based on these analyses, the Corporation recorded an undiscounted increase to its estimated Asbestos Liability of \$

112,640

for claims pending or projected to be asserted through the estimated final date by which the Corporation expects to have settled all asbestos-related claims and estimated defense costs associated with such claims. The increase is primarily attributable to recent claim experience, including higher expected settlement values for all disease categories and a higher expected proportion of mesothelioma claims which typically have a higher settlement value. The increase is net of a benefit of approximately \$

1,800

for the reduction in the estimated timeframe for when a pending mesothelioma claim effectively becomes abandoned - from more-than- six-years from the filing date to more-than- five-years from filing date. The Corporation also recorded an undiscounted increase to its insurance receivable of \$

70,296

for the estimated insurance recoveries attributable to the claims for which the Asbestos Liability reserve has been established and for the portion of defense costs covered by the Settlement Agreements.

In connection with its review of the Asbestos Liability and the underlying assumptions, the Corporation revised its estimated defense-to-indemnity cost ratio from

65
% to

60
% in 2023 and from

70
% to

65
% in 2022 based on continuing favorable experience and future expectations. This change reduced the Asbestos Liability by \$

4,162
and \$

6,905
in 2023 and 2022, respectively, and the insurance receivable by \$

2,705
and \$

4,679
in 2023 and 2022, respectively.

The following table summarizes activity relating to asbestos-related liabilities for the years ended December 31, 2023 and 2022.

	2023	2022
Asbestos liability, beginning of the year		
	\$ 153,575	\$ 180,314

Settlement and defense costs paid	((
	23,374	19,834
))
Effect from a lower defense-to-indemnity ratio	((
	4,162	6,905
))
Change in estimated liability	112,640	-
Asbestos liability, end of the year		
	238,679	153,575
	<u>\$</u>	<u>\$</u>

The following table summarizes activity relating to insurance recoveries for the years ended December 31, 2023 and 2022.

	2023	2022
Insurance receivable – asbestos, beginning of the year, as reported		
	\$ 105,910	\$ 121,297
Impact of adoption of new accounting standard	(476)	-
Insurance receivable – asbestos, beginning of the year, as adjusted	105,434	121,297
Settlement and defense costs paid by insurance carriers	(12,780)	(10,708)
Effect from a lower defense-to-indemnity ratio	(2,705)	(4,679)
Change in estimated coverage	70,296	-
Insurance receivable – asbestos, end of the year	\$ 160,245	\$ 105,910

In conjunction with the adoption of the CECL accounting standard as of January 1, 2023, the Corporation established an allowance for expected credit losses of \$

476 reducing the insurance receivable to its estimated net realizable value. At December 31, 2023, the allowance for expected credit losses approximated \$

708. The allowance for expected credit losses is estimated based on historical insolvency experience, expected time frame until collection of insurance claim and assessments of current creditworthiness of insurers. The insurance receivable does not assume any recovery from insolvent carriers. A substantial majority of the insurance recoveries deemed probable is from insurance companies rated A – (excellent) or better by A.M. Best Corporation. There can be no assurance, however, there will not be insolvencies among the relevant insurance carriers, or the assumed percentage recoveries for certain carriers will prove correct.

The Corporation recognized asbestos-related costs of \$

40,696
and \$(

2,226

) for 2023 and 2022, respectively, comprised of the following:

	2023	2022
Charge for increase in Asbestos Liability, net estimated insurance recovery	\$ 42,344	\$ -
Credit from a lower defense-to-indemnity ratio	(1,457)	(2,226)
Proceeds from insolvent asbestos-related insurance carrier	(191)	-
Charge (credit) for asbestos-related costs, net	\$ 40,696	\$ 2,226

The amounts recorded for the Asbestos Liability and insurance receivable rely on assumptions that are based on currently known facts and strategy. The Corporation's actual expenses or insurance recoveries could be significantly higher or lower than those recorded if assumptions used in the Corporation's or the experts' calculations vary significantly from actual results. Key variables in these assumptions include the forecast of the population likely to have been exposed to asbestos; the number of people likely to develop an asbestos-related disease; the estimated number of people likely to file an asbestos-related injury claim against the Corporation or its subsidiaries; an analysis of pending cases, by type of injury claimed and jurisdiction where the claim is filed; average settlement value of claims, by type of injury claimed and jurisdiction of filing; the number and nature of new claims to be filed each year; the average cost of disposing of each new claim; the average annual defense costs; compliance by relevant parties with the terms of the Settlement Agreements; and the solvency risk with respect to the relevant insurance carriers. Other factors that may affect the Asbestos Liability and

ability to recover under the Corporation's insurance policies include uncertainties surrounding the litigation process from jurisdiction to jurisdiction and from case to case, reforms that may be made by state and federal courts, and the passage of state or federal tort reform legislation.

The Corporation intends to continue to evaluate the Asbestos Liability, related insurance receivable, the sufficiency of its allowance for expected credit losses and the underlying assumptions on a regular basis to determine whether any adjustments to the estimates are required. Due to the uncertainties surrounding asbestos litigation and insurance, these regular reviews may result in the Corporation adjusting its current reserve; however, the Corporation is currently unable to estimate such future adjustments. Adjustments, if any, to the Corporation's estimate of the Asbestos Liability, insurance receivable and/or allowance for expected credit losses could be material to the operating results for the period in which the adjustments to the liability, receivable or allowance are recorded and to the Corporation's consolidated financial position, results of operations and liquidity.

NOTE 21 – INCOME TAXES:

(Loss) income from operations before income taxes for the years ended December 31, 2023 and 2022 is summarized below. (Loss) income from operations before income taxes for certain foreign entities is classified differently for book reporting and income tax reporting purposes.

	2023	2022
Domestic	(
	44,128	1,438
	\$)	\$
Foreign		
	4,851	4,118
	(
	39,277	5,556
(Loss) income from operations before income taxes	\$)	\$

The income tax provision for the years ended December 31, 2023 and 2022 consisted of the following:

	2023	2022
Current:		
Federal	\$ —	\$ —
State	33	219
Foreign	1,773	889
Current income tax provision	1,806	1,108
Deferred:		
Federal	(8,461)	(3)
State	(1,147)	2,177
Foreign	(598)	52
Increase (decrease) in valuation allowance	7,242	(1,758)
Deferred income tax (benefit) provision	(2,964)	468
	(1,158)	1,576
Total income tax (benefit) provision	\$ <u>1,158</u>	\$ <u>1,576</u>

The difference between statutory U.S. federal income tax and the Corporation's effective income tax for the years ended December 31, 2023 and 2022 was as follows:

	2023	2022
Computed at statutory rate	(8,248)	1,167
State income taxes	(899)	924
Rate change	465	2,857
Tax differential on non-U.S. earnings	(216)	—
Stock-based compensation	56	183
Meals and entertainment	43	28
Adjustments to net operating losses	87	296

Increase (decrease) in valuation allowance		(
	7,242	1,758
)
Other – net		(
	312	273
)
Total income tax (benefit) provision	(
	1,158	1,576
	<u>\$</u>	<u>\$</u>

Deferred income tax assets and liabilities as of December 31, 2023 and 2022 are summarized in the following table. Unremitted earnings of the Corporation's non-U.S. subsidiaries and affiliates are deemed to be permanently re-invested and, accordingly,

no

deferred income tax liability has been recorded. If the Corporation were to remit any foreign earnings to the U.S., the estimated tax impact would be insignificant.

	2023	2022
Assets:		
Employment – related liabilities		
	\$ 5,221	\$ 4,931
Pension liability – domestic	5,299	5,873
Capital loss carryforwards	192	182
Asbestos-related liability	19,044	12,005
Net operating loss – domestic	15,115	12,224
Net operating loss – state	3,248	3,172
Net operating loss – foreign	9,289	8,504
Impairment charge associated with investment in Anhui	953	956
Operating lease right-of-use assets	1,161	855
Interest expense limitation	1,929	814
Sale-leaseback	10,204	9,784
Other	594	643
Gross deferred income tax assets	72,249	59,943
Valuation allowance	(41,041)	(31,981)
	31,208	27,962
Liabilities:		
Depreciation	(25,408)	(24,085)
Inventory related	(674)	(1,576)

Pension asset – foreign	((
	224	808
))
Intangible assets – finite life	((
	112	241
))
Intangible assets – indefinite life	((
	464	453
))
Operating lease liabilities	((
	1,161	855
))
Other	((
	548	321
))
Gross deferred income tax liabilities	((
	28,591	28,339
))
Net deferred income tax assets (liabilities)		(
	2,617	377
	<u>\$</u>	<u>\$</u>

At December 31, 2023, the Corporation has U.S. federal net operating loss carryforwards of \$

71,978
, of which \$

68,299
can be carried forward indefinitely but will be limited to 80% of the Corporation's taxable income in any given year. The balance of \$

3,679
will begin to expire in 2035 and can be used without taxable income limitation. Additionally, at December 31, 2023, the Corporation had state net operating loss carryforwards of \$

84,831
, which begin to expire in 2024, and foreign net operating loss carryforwards of \$

42,248
and capital loss carryforwards of \$

768
, which do not expire.

Valuation allowances are recorded against the majority of the Corporation's deferred income tax assets. The Corporation will maintain the valuation allowances until there is sufficient evidence to support the reversal of all or some portion of the allowances. Given the Corporation's current earnings and anticipated future earnings in Sweden, the Corporation believes there is a reasonable possibility within the next 12 months, sufficient positive evidence may become available to allow the Corporation to conclude some portion of the valuation allowance will no longer be needed. Release of any portion of the valuation allowance would result in the recognition of deferred income tax assets on the consolidated balance sheet and a decrease to income tax expense in the period the release is recorded. The exact timing and the amount of the valuation allowance released are subject to, among many items, the level of profitability achieved. Once the valuation allowance is completely reversed, a tax provision would be recognized on future earnings of the Sweden operations.

Conversely, given the Corporation's current losses in the U.K. and current year changes to the net deferred income tax position in the U.K., sufficient negative evidence became available to conclude a valuation allowance was warranted on the net deferred income tax assets of the Corporation's U.K. operations at December 31, 2023. Establishment of the new valuation allowance resulted in the derecognition of deferred income tax assets on the Corporation's consolidated balance sheet and an increase to the Corporation's income tax expense in 2023 totaling \$

316

Unrecognized tax benefits and changes in unrecognized tax benefits for the years ended December 31, 2023 and 2022 are insignificant. If the unrecognized tax benefits were recognized, the effect on the Corporation's effective income tax rate would also be insignificant. The amount of penalties and interest recognized in the consolidated balance sheets as of December 31, 2023 and 2022 and in the consolidated statements of operations for 2023 and 2022 is insignificant.

In 2023, Slovenia temporarily increased its corporate income tax rate from

19
% to

22
% for tax years 2024 to 2028. The increase did not have a significant impact on the deferred income tax assets and liabilities of the Corporation's Slovenian operations. In 2022, new Pennsylvania legislation and the Inflation Reduction Act ("IRA") were enacted. The Pennsylvania legislation gradually decreases the Pennsylvania state income tax rate from

9.99
% in 2022 to

4.99
% in 2031. The decrease reduced the deferred income tax assets and liabilities of the Corporation's Pennsylvanian entities by \$

203
and \$

165
for 2023 and 2022, respectively. The IRA, among other provisions, includes a new

15
% corporate alternative minimum tax for corporations with financial income in excess of \$

1
billion and a

1
% excise tax on corporate share repurchases, which is not expected to impact the Corporation due, in part, to the Corporation's revolving credit facility prohibiting the Corporation from repurchasing its shares.

The Corporation is subject to taxation and files income tax returns in the United States, various states and foreign jurisdictions, and remains subject to examination by tax authorities for tax years 2019 – 2023.

NOTE 22 – ENVIRONMENTAL MATTERS:

The Corporation is currently performing certain remedial actions in connection with the sale of real estate previously owned and periodically incurs costs to maintain compliance with environmental laws and regulations. Environmental exposures are difficult to assess and estimate for numerous reasons, including lack of reliable data, the multiplicity of possible solutions, the years of remedial and monitoring activity required, and identification of new sites. The undiscounted potential liability for remedial actions and environmental compliance measures approximated \$

100

as of December 31, 2023 and 2022.

NOTE 23 – RELATED PARTIES:

Shanxi Åkers TISCO Roll Co., Ltd. ("ATR") periodically has loans outstanding with its minority shareholder. Interest on borrowings accrues at the three-to-five-year loan interest rate set by the People's Bank of China, which approximated

4.35
% and

4.79
% for 2023 and 2022, respectively. Interest paid in 2023 approximated \$

6
(RMB

42
) . Interest paid in 2022, including interest accumulated on previous loans, approximated \$

1,766
(RMB

11,063
) .

No

interest was outstanding as of December 31, 2023 or 2022.

Loan activity for the years ended December 31, 2023 and 2022 was as follows:

	2023 USD	2023 RMB	2022 USD	2022 RMB
Balance at beginning of the period				
	\$ -	-	\$ -	-

Borrowings

	1,768	12,317	5,776	38,471
Repayments	((((
	1,096	7,604	5,776	38,471
))))
Foreign exchange	(
	7	-	-	-
)			
Balance at end of the period				
	665	4,713	-	-
	\$	\$		

Sales to and purchases from ATR's minority shareholder and its affiliates, which were in the ordinary course of business, for the years ended December 31, 2023 and 2022, were as follows:

	2023 USD	2023 RMB	2022 USD	2022 RMB
Purchases from related parties				
	7,331	51,851	6,666	44,856
	\$		\$	
Sales to related parties				
	2,939	20,786	9,934	66,849
	\$		\$	

Balances outstanding with ATR's minority shareholder and its affiliates, for the years ended December 31, 2023 and 2022, were as follows:

	2023 USD	2023 RMB	2022 USD	2022 RMB
Accounts receivable from related parties				
	190	1,350	1,066	7,352
	\$		\$	
Accounts payable to related parties				
	401	2,841	412	2,841
	\$		\$	
Other current liabilities:				
Customer deposits				
	149	1,056	368	2,542
	\$		\$	

In addition, the Corporation had sales, which were in the ordinary course of business, of approximately \$

4,082

during the year ended 2023 to a wholly owned subsidiary of Crawford United Corporation which, along with other affiliated persons (collectively, the "Crawford Group"), was the beneficial owner of greater than

5

% of the Corporation's stock during 2023. The associated trade receivable was \$

722

at December 31, 2023. Pursuant to Amendment No. 5 to Schedule 13D filed by the Crawford Group with the SEC on February 20, 2024, the Crawford Group ceased to beneficially own greater than

5

% of the Corporation's stock as of February 16, 2024.

NOTE 24 – BUSINESS SEGMENTS:

The Corporation organizes its business into

two

operating segments – *Forged and Cast Engineered Products* and *Air and Liquid Processing*. Summarized financial information concerning the Corporation's reportable segments is shown in the following tables. Corporate assets included under Identifiable Assets represent primarily cash and cash equivalents and other items not allocated to reportable segments. Long-lived assets exclude deferred income tax assets. Corporate costs are comprised of operating costs of the corporate office and other costs not allocated to the segments. The accounting policies are the same as those described in [Note 1](#), *Summary of Significant Accounting Policies*.

	Net Sales		(Loss) Income Before Income Taxes	
	2023	2022	2023	2022
Forged and Cast Engineered Products ⁽¹⁾				
	\$ 303,761	\$ 299,484	\$ 7,580	\$ 444
Air and Liquid Processing ⁽²⁾			()
	118,579	90,705	29,084	13,686
Total Reportable Segments			()
	422,340	390,189	21,504	14,130
Corporate costs, including other (expense) income			()
	—	—	17,773	8,574
			()
Consolidated total	\$ 422,340	\$ 390,189	\$ 39,277	\$ 5,556

	Capital Expenditures		Depreciation and Amortization Expense		Identifiable Assets ⁽³⁾	
	2023	2022	2023	2022	2023	2022
Forged and Cast Engineered Products						
	\$ 17,055	\$ 15,312	\$ 16,840	\$ 16,730	\$ 308,966	\$ 327,277
Air and Liquid Processing						
	3,393	1,376	829	667	247,733	168,583
Corporate						
	—	—	5	11	8,955	6,914
Consolidated total	\$ 20,448	\$ 16,688	\$ 17,674	\$ 17,408	\$ 565,654	\$ 502,774

	Long-lived Assets ⁽⁴⁾		(Loss) Income Before Income Taxes	
	2023	2022	2023	2022
Geographic Areas:				
United States ⁽⁵⁾			()
	\$ 264,120	\$ 202,860	\$ 44,114	\$ 1,424
Foreign			()
	61,721	66,365	4,837	4,132

Consolidated total				(
	\$	325,841	\$	269,225	\$ 39,277
					\$ 5,556

(1) For the FCEP segment,

one
customer accounted for
11
% and

10
% of its net sales in 2023 and 2022, respectively.

(2) Loss before income taxes for the ALP segment includes a net charge of \$

40,696
in 2023 representing the expense associated with changes in the estimated costs of pending and future asbestos claims, net of additional insurance recoveries through the estimated final date by which the Corporation expects to have settled all asbestos-related claims. The charge is net of credits of approximately \$

1,457
for the reduction in the estimated defense-to-indemnity ratio from

65
% to

60
% and \$

191
for proceeds received from an insolvent asbestos-related insurance carrier. In 2022, income before income taxes includes a credit of \$(

2,226
) representing the reduction in the estimated defense-to-indemnity cost ratio from

70
% to

65
%.

(3) Identifiable assets for the FCEP segment include investments in joint ventures of \$

2,175
at December 31, 2023 and 2022. Identifiable assets for the ALP segment include asbestos-related insurance receivables of \$

160,245
and \$

105,910
at December 31, 2023 and 2022, respectively.

(4) Foreign long-lived assets primarily represent assets of the foreign operations. Long-lived assets of the U.S. include noncurrent asbestos-related insurance receivables of \$

145,245
and \$

90,910
at December 31, 2023 and 2022, respectively.

(5) Loss before income taxes for the United States includes Corporate costs, a net charge of \$

40,696
in 2023 representing the expense associated with changes in the estimated costs of pending and future asbestos claims, net of additional insurance recoveries through the estimated final date by which the Corporation expects to have settled all asbestos-related claims. The charge is net of credits of approximately \$

1,457
for the reduction in the estimated defense-to-indemnity ratio from

65
% to

60
% and \$

191
for proceeds received from an insolvent asbestos-related insurance carrier. In 2022, income before income taxes includes a credit of \$(

2,226
) representing the reduction in the estimated defense-to-indemnity cost ratio from

70
% to

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Shareholders and Board of Directors
Ampco-Pittsburgh Corporation
Carnegie, Pennsylvania

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Ampco-Pittsburgh Corporation (the Corporation) as of December 31, 2023 and 2022, the related consolidated statements of operations, comprehensive (loss) income, shareholders' equity, and cash flows for each of the years then ended, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Corporation at December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Corporation's management. Our responsibility is to express an opinion on the Corporation's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Corporation in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Corporation is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Corporation's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing separate opinions on the critical audit matter or on the accounts or disclosures to which it relates.

Asbestos Liabilities and Related Insurance Receivables

As described in Notes 1 and 20 to the Corporation's consolidated financial statements, the Corporation has accrued asbestos liabilities of \$238.7 million (\$24.0 million current and \$214.7 million long term) and recorded asbestos-related insurance receivables of \$160.2 million (\$15.0 million current and \$145.2 million noncurrent) as of December 31, 2023. These liabilities and insurance receivables relate to claims that have been asserted alleging personal injury from exposure to asbestos-containing components historically used in certain products manufactured by predecessors of the Corporation's Air & Liquid Systems Corporation. The Corporation utilizes third-party experts to assist in developing (i) an estimate of the asbestos liability for the probable pending and future claims over the period that the Corporation believes it can reasonably estimate such claims and (ii) an estimate of the insurance receivable for the insurance proceeds expected to be received under existing policies associated with the asbestos liabilities.

We identified the valuation of asbestos liabilities and insurance receivables as a critical audit matter. The principal considerations for our determination are: (i) the subjectivity of estimating projected claims including the period for which the Corporation can reasonably estimate the asbestos liabilities, (ii) the estimation process for projected settlement values of reported and unreported claims including the number of claims expected to be filed and adjudicated, the disease type, and the settlement and defense costs to estimate the asbestos liabilities, and (iii) the complexity of determining the associated insurance receivables including the estimated settlement costs for the asbestos liabilities and the associated defense costs, the continued financial solvency of the insurance carriers, and legal interpretation of rights for recovery under the insurance policies and the related settlement agreements. Auditing these elements involved especially

challenging auditor judgment due to the nature and extent of audit effort required to address these matters, including the extent of specialized skill or knowledge needed.

The primary procedures we performed to address this critical audit matter included:

- Assessing the qualifications, experience, and objectivity of the Corporation's third-party experts;
- Testing the underlying historical data that served as a basis for the valuation of the asbestos liabilities for completeness and accuracy through the examination of relevant source documents;
- Testing the insurance policies for existence and coverage amounts including independent confirmation of a selection of policies and the related settlement agreements directly with insurance carriers;
- Evaluating the ongoing financial solvency of a selection of insurance carriers utilizing publicly available financial information; and
- Utilizing personnel with specialized knowledge and skill in actuarial science to assist in: (i) evaluating the valuation methodology utilized by the Corporation to estimate the asbestos liabilities, (ii) testing the computation of the asbestos liability estimate performed by the Corporation's third-party experts, (iii) evaluating the period utilized by the Corporation to project probable pending and future claims for reasonableness, and (iv) evaluating the reasonableness of assumptions utilized to develop the estimates of future indemnification costs for the asbestos liabilities.

We have served as the Corporation's auditor since 2020.

/s/ BDO USA, P.C.

Pittsburgh, Pennsylvania
March 25, 2024

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

The Corporation did not experience any changes in, or disagreements with its accountants on, accounting and financial disclosure during the period covered.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures. An evaluation of the effectiveness of the Corporation's disclosure controls and procedures as of the end of the period covered by this report was carried out under the supervision, and with the participation, of management, including the principal executive officer and principal financial officer. Disclosure controls and procedures are defined under SEC rules as controls and other procedures that are designed to ensure that information required to be disclosed by a company in the reports that it files under the Exchange Act is recorded, processed, summarized and reported within required time periods. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by an issuer in the reports that it files or submits under the Exchange Act is accumulated and communicated to the issuer's management, including its principal executive officer and principal financial officer, or persons performing similar functions, as appropriate, to allow timely decisions regarding required disclosure. Based on that evaluation, the Corporation's management, including the principal executive officer and principal financial officer, has concluded the Corporation's disclosure controls and procedures were effective at a reasonable assurance level as of December 31, 2023.

Management's Annual Report on Internal Control Over Financial Reporting. The Corporation's management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a – 15(f) under the Securities Exchange Act). Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations. Effective internal control over financial reporting can only provide reasonable assurance that the objectives of the control process are met. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate, this risk. Further, the design of internal control over financial reporting includes the consideration of the benefits of each control relative to the cost of the control.

Management assessed the effectiveness of internal control over financial reporting as of December 31, 2023. In making this assessment, management used the criteria set forth in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on those criteria and management's assessment, management, including the principal executive officer and principal financial officer, concluded the Corporation's internal control over financial reporting was effective as of December 31, 2023.

Remediation of Prior Material Weaknesses in Internal Control Over Financial Reporting.

As previously disclosed in the Corporation's Annual Report on Form 10-K for the year ended December 31, 2022 and Quarterly Reports on Form 10-Q for the quarters ended March 31, 2023, June 30, 2023 and September 30, 2023, the Corporation identified material weaknesses related to (i) the accounting for claims asserted alleging personal injury from exposure to asbestos-containing components historically used in some products manufactured by predecessors of Air & Liquid Systems Corporation (the "Asbestos Liability") and (ii) management review control activities related to the tax accounting for a non-routine transaction. The Corporation has designed and implemented measures to remediate the identified material weaknesses.

With respect to the material weakness related to the accounting for the Asbestos Liability claims, the Corporation implemented a number of procedures and control activities including, but not limited to:

- Dedicating a full-time employee to manage the accounting for asbestos claims and costs associated with the Asbestos Liability, with oversight provided by the Corporation's Chief Financial Officer ("CFO");
- Obtaining a Service Organization Control ("SOC") 1, Type 2 report for the period July 1, 2023 to September 30, 2023 (the "Testing Period") for the third-party asbestos claims management database used by the Corporation to manage the asbestos claims and costs associated with the Asbestos Liability which indicated, in all material respects:
 - o The description of the asbestos claims management database for processing user entities' transactions (the "Description"), as provided by the third party, was designed and implemented throughout the Testing Period;
 - o The controls related to the control objectives stated in the Description were suitably designed to provide reasonable assurance that the control objectives would be achieved if the controls operated effectively throughout the Testing

Period, and any subservice organizations and user entities applied the complementary controls assumed in the design of the third-party asbestos claims management database throughout the Testing Period; and

o The controls operated effectively to provide reasonable assurance that the control objectives stated in the Description were achieved throughout the Testing Period, if the complementary subservice organization and user entity controls assumed in the design of the third-party asbestos claims management database operated effectively throughout the Testing Period;

- Reviewing the SOC 1, Type 2 report ensuring no deficiencies existed to cause the inability to rely on the third-party asbestos claims management database;
- Obtaining and reviewing the SOC 1, Type 2 reports for the subservice organizations to reasonably ensure the complementary controls assumed in the design of third-party asbestos claims management database at the subservice organizations operated effectively throughout the Testing Period;
- Testing complementary controls assumed in the design of third-party asbestos claims management database at the Corporation (a user entity) to reasonably ensure such complementary controls operated effectively throughout the Testing Period;
- Obtaining a letter of assurance from the third-party service provider that, between October 1, 2023 and December 31, 2023, there were no significant and/or material changes in the design of the internal controls described in the SOC 1 Type 2 Report for the Testing Period;
- Completing supplemental and independent testing of controls of the third-party asbestos claims management database for the period January 1, 2023 to June 30, 2023 to reasonably ensure such controls operated effectively throughout the period January 1, 2023 to June 30, 2023;
- Establishing limits of authority for the Corporation's employees utilizing the third-party asbestos claims management database, thereby providing an appropriate segregation of duties; and
- Reviewing the appropriateness of user access for the Corporation's employees to, and user rights within, the third-party asbestos claims management database.

With respect to the material weakness related to the management review control activities associated with the tax accounting for a non-routine transaction, the Corporation implemented a number of procedures and control activities including, but not limited to:

- Engaging external consultants, under the Corporation's supervision, to provide support and assist the Corporation in its evaluation of such transactions when necessary; and
- Enhancing its management review controls over income taxes on an interim basis to include specific activities at a more precise level to assess the impacts of non-routine transactions, including the identification of relevant contractual terms and conditions related to such transactions.

As of December 31, 2023, these enhanced procedures and control activities operated for a sufficient period of time for the Corporation's management to conclude, through testing, that the Corporation's enhanced controls operate effectively. As such, the Corporation has concluded that the previously reported material weaknesses have been remediated as of December 31, 2023.

Changes in Internal Control Over Financial Reporting. Except as discussed above, there were no other changes in the Corporation's internal control over financial reporting during the quarter ended December 31, 2023, that have materially affected, or are reasonably likely to materially affect, its internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

(a) None

(b) None

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

– PART III –

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information about the Corporation's directors required by Item 401 of Regulation S-K and not otherwise set forth below is contained under the caption "Proposal 1: Election of Directors" in the Corporation's definitive Proxy Statement for the 2023 Annual Meeting of Shareholders (the "Proxy Statement") which the Corporation anticipates filing with the Securities and Exchange Commission, pursuant to Regulation 14A, no later than 120 days after the end of the Corporation's fiscal year, and is incorporated by reference. The information required by Item 401 of Regulation S-K regarding executive officers is set forth in Part I, Item 1 of this report under "Executive Officers."

The information required by Item 405 of Regulation S-K is contained under the caption "Security Ownership of Certain Beneficial Owners and Management - Delinquent Section 16(a) Reports" of the Proxy Statement and is incorporated by reference.

The Corporation and its subsidiaries have adopted a Code of Business Conduct and Ethics that applies to all of their officers, directors and employees, as well as an additional Code of Ethics that applies to the Corporation's Chief Executive Officer and Chief Financial Officer, which are available on the Corporation's website at www.ampcopittsburgh.com.

The information required by Items 407(c)(3), (d)(4) and (d)(5) of Regulation S-K is contained under the captions "Corporate Governance – Director Nominating Procedures" and "Board Committees: Director Compensation – Audit Committee" of the Proxy Statement and is incorporated by reference.

ITEM 11. EXECUTIVE COMPENSATION

The information required for Item 11 is contained under the captions "Director Compensation," "Compensation Discussion and Analysis ("CDA"), "Summary Compensation Table," "Outstanding Equity Awards at Fiscal Year-End," "Retirement Benefits," "Potential Payments upon Termination, Resignation or Change in Control," and "Report of The Compensation Committee" of the Proxy Statement and is incorporated by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by Item 201(d) of Regulation S-K is contained under the caption "Equity Compensation Plan Information" of the Proxy Statement and is incorporated by reference.

The information required by Item 403 of Regulation S-K is contained under the caption "Security Ownership of Certain Beneficial Owners and Management" of the Proxy Statement and is incorporated by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by Item 404 of Regulation S-K is contained under the caption "Certain Relationships and Related Transactions" in the Proxy Statement and is incorporated by reference.

The information required by Item 407(a) of Regulation S-K is contained under the caption "Corporate Governance – Board Independence" of the Proxy Statement and is incorporated by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required for Item 14 is contained under the caption "Report of the Audit Committee" of the Proxy Statement and is incorporated herein.

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

THE FOLLOWING DOCUMENTS ARE FILED AS PART OF THIS REPORT:

1. Financial Statements

- Consolidated Balance Sheets
- Consolidated Statements of Operations
- Consolidated Statements of Comprehensive (Loss) Income
- Consolidated Statements of Shareholders' Equity
- Consolidated Statements of Cash Flows
- Notes to Consolidated Financial Statements
- Report of Independent Registered Public Accounting Firm (BDO USA, P.C.; Pittsburgh, Pennsylvania, United States; PCAOB ID # 243)

2. Financial Statement Schedules

The financial statement schedules are not applicable to the Corporation since the Corporation meets the definition of a Smaller Reporting Company, as defined by the Securities and Exchange Commission per Rule 12b-2 of the Exchange Act.

3. Exhibits

Exhibit No.

- | | |
|------|--|
| 2.1 | <u>Purchase Agreement, dated November 1, 2016, by and among Ampco UES Sub, Inc., ASW Steel Inc., CK Pearl Fund, Ltd., CK Pearl Fund LP, and White Oak Strategic Master Fund, L.P., incorporated by reference to Current Report on Form 8-K filed on November 4, 2016.</u> |
| 2.2 | <u>Purchase Agreement, dated September 30, 2019, by and among Ampco UES Sub, Inc., ASW Steel Inc., Valbruna Canada Ltd. and Ampco-Pittsburgh Corporation, incorporated by reference to Current Report on Form 8-K filed on October 3, 2019.</u> |
| 3.1 | <u>Restated Articles of Incorporation, effective as of August 11, 2017, incorporated by reference to Quarterly Report on Form 10-Q filed on November 9, 2017.</u> |
| 3.2 | <u>Amendment of Amended and Restated Articles of Incorporation, effective as of May 9, 2019, incorporated by reference to Quarterly Report on Form 10-Q filed on May 10, 2019.</u> |
| 3.3 | <u>Amended and Restated By-laws, effective as of December 14, 2022, incorporated by reference to Annual Report on Form 10-K filed on March 21, 2023.</u> |
| 4.1 | <u>Form of Common Stock Certificate, incorporated by reference to Registration Statement on Form S-3 filed on January 19, 2018.</u> |
| 4.2 | <u>Form of Series A Warrant Certificate, incorporated by reference to Amendment No. 1 to Registration Statement on Form S-1 filed on July 21, 2020.</u> |
| 4.3 | <u>Warrant Agreement between Ampco-Pittsburgh Corporation and Broadridge Corporate Issuer Solutions, Inc. with respect to Series A Warrants, incorporated by reference to Quarterly Report on Form 10-Q filed on November 16, 2020.</u> |
| 4.4 | <u>Description of Securities, incorporated by reference to the Annual Report on Form 10-K filed on March 21, 2023.</u> |
| 10.1 | <u>First Amended and Restated Revolving Credit and Security Agreement, dated June 29, 2021, by and among Air & Liquid Systems Corporation, Union Electric Steel Corporation, Alloys Unlimited and Processing, LLC, Akers National Roll Company, Union Electric Steel UK Limited, Åkers AB and Åkers Sweden AB, certain lenders, the guarantors party thereto, including the Corporation, PNC Bank, National Association, as agent for the lenders, and the other lenders party thereto, incorporated by reference to Current Report on Form 8-K filed on July 1, 2021.</u> |

10.2	<u>Amendment No. 1 to First Amended and Restated Revolving Credit and Security Agreement, dated December 17, 2021, by and among Air & Liquid Systems Corporation, Union Electric Steel Corporation, Alloys Unlimited and Processing, LLC, Akers National Roll Company, Union Electric Steel UK Limited, Åkers AB and Åkers Sweden AB, certain lenders, the guarantors party thereto, including the Corporation, PNC Bank, National Association, as agent for the lenders, and the other lenders party thereto, incorporated by reference to Annual Report on Form 10-K filed on March 16, 2022.</u>
10.3	<u>Amendment No. 2 to First Amended and Restated Revolving Credit and Security Agreement, dated May 26, 2022, by and among Air & Liquid Systems Corporation, Union Electric Steel Corporation, Alloys Unlimited and Processing, LLC, Akers National Roll Company, Union Electric Steel UK Limited, Åkers AB and Åkers Sweden AB, certain lenders, the guarantors party thereto, including the Corporation, PNC Bank, National Association, as agent for the lenders, and the other lenders party thereto, incorporated by reference to Current Report on Form 8-K filed on May 27, 2022.</u>
10.4	<u>Amended and Restated Master Lease Agreement between Union Electric Steel Corporation and Store Capital Acquisitions, LLC, dated August 30, 2022, incorporated by reference to Current Report on Form 8-K filed on September 2, 2022.</u>
10.5	<u>Amended and Restated Unconditional Guaranty of Payment and Performance between Ampco-Pittsburgh Corporation and Store Capital Acquisitions, LLC, dated August 30, 2022, incorporated by reference to Current Report on Form 8-K filed on September 2, 2022.</u>
10.6	<u>Master Loan and Security Agreement between Union Electric Steel Corporation and Clarus Capital Funding I, LLC, dated September 29, 2022, incorporated by reference to Current Report on Form 8-K filed on October 4, 2022.</u>
10.7	<u>Guaranty made by Ampco-Pittsburgh Corporation to Clarus Capital Funding I, LLC, and dated September 29, 2022, incorporated by reference to Current Report on Form 8-K filed on October 4, 2022.</u>
10.8	<u>Amendment to Progress Payment Authorizations by and between Union Electric Steel Corporation and Clarus Capital Funding, LLC, incorporated by reference to Quarterly Report on Form 10-Q filed on August 9, 2023.</u>
10.9	<u>Ampco-Pittsburgh Corporation 2016 Omnibus Incentive Plan, as amended and restated, incorporated by reference to Registration Statement on Form S-8 filed on May 18, 2023.</u>
* 10.10	<u>Form of Notice of Grant of Restricted Stock Unit Award (Time-Vesting), incorporated by reference to Annual Report on Form 10-K filed on March 16, 2017.</u>
* 10.11	<u>Form of Notice of Grant of Restricted Stock Unit Award (Performance-Vesting), incorporated by reference to Annual Report on Form 10-K filed on March 16, 2017.</u>
* 10.12	<u>Form of Notice of Grant of Restricted Stock Unit Award (Share Price Performance), incorporated by reference to Amendment No. 1 to Quarterly Report Registration Statement on S-8 filed on May 18, 2023.</u>
* 10.13	<u>Offer Letter by and between Ampco-Pittsburgh Corporation and J. Brett McBrayer, dated June 16, 2018, incorporated by reference to Amendment No. 1 to Quarterly Report on Form 10-Q/A filed on August 17, 2018.</u>
* 10.14	<u>Amendment No. 1 to Offer Letter, dated August 10, 2021, by and between Ampco-Pittsburgh Corporation and J. Brett McBrayer, incorporated by reference to Current Report on Form 8-K filed on August 13, 2021.</u>
* 10.15	<u>Change in Control Agreement by and between Ampco-Pittsburgh Corporation and J. Brett McBrayer, dated July 1, 2018, incorporated by reference to Amendment No. 1 to Quarterly Report on Form 10-Q/A filed on August 17, 2018.</u>
* 10.16	<u>Amendment to Change in Control Agreement by and between Ampco-Pittsburgh Corporation and J. Brett McBrayer, dated December 20, 2019, incorporated by reference to Annual Report on Form 10-K filed on March 16, 2020.</u>
* 10.17	<u>Change in Control Agreement by and between Ampco-Pittsburgh Corporation and Michael G. McAuley, dated April 25, 2016, incorporated by reference to Current Report on Form 8-K filed on April 25, 2016.</u>
* 10.18	<u>Change in Control Agreement by and among Ampco-Pittsburgh Corporation, Union Electric Steel Corporation and Samuel C. Lyon, dated March 6, 2019, incorporated by reference to Annual Report on Form 10-K filed on March 18, 2019.</u>

*	10.19	<u>Change in Control Agreement by and among Ampco-Pittsburgh Corporation, Air & Liquid Systems Corporation and David Anderson, dated January 1, 2022, incorporated by reference to Annual Report on Form 10-K filed on March 16, 2022.</u>
*	10.20	<u>Ampco-Pittsburgh Corporation Executive Severance Plan, effective as of June 21, 2018, incorporated by reference to Current Report on Form 8-K filed on June 27, 2018.</u>
*	10.21	<u>Ampco-Pittsburgh Corporation Non-Employee Director Compensation Policy, effective as of May 5, 2022, incorporated by reference to Current Report on Form 8-K filed on May 9, 2022.</u>
	10.22	<u>Cooperation Agreement, dated March 31, 2023 by and among Ampco-Pittsburgh Corporation, Ancora Holdings Group, LLC and the other entities and natural persons party thereto, incorporated by reference to Current Report on Form 8-K filed on March 31, 2023.</u>
†	21	<u>Significant Subsidiaries</u>
†	23.1	<u>Consent of BDO USA, P.C.</u>
†	23.2	<u>Consent of Gnarus Advisors LLC</u>
†	31.1	<u>Certification of Principal Executive Officer pursuant to Section 302 of The Sarbanes-Oxley Act of 2002.</u>
†	31.2	<u>Certification of Principal Financial Officer pursuant to Section 302 of The Sarbanes-Oxley Act of 2002.</u>
††	32.1	<u>Certification of Principal Executive Officer pursuant to Section 906 of The Sarbanes-Oxley Act of 2002.</u>
††	32.2	<u>Certification of Principal Financial Officer pursuant to Section 906 of The Sarbanes-Oxley Act of 2002.</u>
†	97	<u>Ampco-Pittsburgh Corporation Clawback Policy.</u>
**	101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.
**	101.SCH	Inline XBRL Taxonomy Extension Schema With Embedded Linkbase Documents
**	104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

† Filed herewith

†† Furnished herewith

* Management contracts, compensatory plans or arrangements required to be filed as an exhibit hereto pursuant to Item 601 of Regulation S-K.

** Attached as Exhibit 101 to this report are the following documents formatted in Inline XBRL (Extensible Business Reporting Language) as of and for the year ended December 31, 2023: (i) the Consolidated Statement of Operations, (ii) the Consolidated Balance Sheet, (iii) the Consolidated Statement of Shareholders' Equity, (iv) the Consolidated Statement of Comprehensive (Loss) Income, (v) the Consolidated Statement of Cash Flows, and (vi) Notes to Consolidated Financial Statements.

ITEM 16. FORM 10-K SUMMARY

Not applicable.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

March 25, 2024

AMPCO-PITTSBURGH CORPORATION

By: */s/ J. Brett McBrayer*

Name: **J. Brett McBrayer**

Title: Chief Executive Officer

Each person whose individual signature follows hereby authorizes and appoints J. Brett McBrayer and Michael G. McAuley, and each of them, with full power of substitution and re-substitution and full power to act without the other, as his or her true and lawful attorney-in-fact and agent to act in his or her name, place and stead and to execute in the name and on behalf of each person, individually and in each capacity stated, and to file any and all amendments to this annual report on Form 10-K and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing, ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or his or her substitute or substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in their capacities and on the dates indicated.

SIGNATURE	TITLE	DATE
<u>/s/ J. Brett McBrayer</u> J. Brett McBrayer	Director and Chief Executive Officer (Principal Executive Officer)	March 25, 2024
<u>/s/ Michael G. McAuley</u> Michael G. McAuley	Senior Vice President, Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer)	March 25, 2024
<u>/s/ James J. Abel</u> James J. Abel	Director	March 25, 2024
<u>/s/ Frederick D. DiSanto</u> Frederick D. DiSanto	Director	March 25, 2024
<u>/s/ Robert A. DeMichiei</u> Robert A. DeMichiei	Director	March 25, 2024
<u>/s/ Elizabeth A. Fessenden</u> Elizabeth A. Fessenden	Director	March 25, 2024
<u>/s/ Michael I. German</u> Michael I. German	Director	March 25, 2024
<u>/s/ William K. Lieberman</u> William K. Lieberman	Director	March 25, 2024
<u>/s/ Darrell L. McNair</u> Darrell L. McNair	Director	March 25, 2024
<u>/s/ Laurence E. Paul</u> Laurence E. Paul	Director	March 25, 2024
<u>/s/ Stephen E. Paul</u> Stephen E. Paul	Director	March 25, 2024
<u>/s/ Carl H. Pforzheimer, III</u> Carl H. Pforzheimer, III	Director	March 25, 2024

Subsidiaries

Name	Ownership	Jurisdiction of Incorporation
Air & Liquid Systems Corporation*	100% owned by Ampco-Pittsburgh Corporation	Pennsylvania
Ampco-Pittsburgh Securities V Investment Corporation*	100% owned by Ampco-Pittsburgh Securities V L.L.C.	Delaware
Ampco-Pittsburgh Securities V L.L.C.*	100% owned by Ampco-Pittsburgh Corporation	Delaware
Union Electric Steel Corporation*	100% owned by Ampco-Pittsburgh Securities V L.L.C.	Pennsylvania
Ampco UES Sub, Inc.*	100% owned by Union Electric Steel Corporation	Delaware
The Davy Roll Company Limited*	100% owned by FCEP Europe B.V.	England
Union Electric Steel UK Limited*	100% owned by The Davy Roll Company Limited	England
Åkers AB*	100% owned by FCEP Europe B.V.	Sweden
Åkers Sweden AB*	100% owned by FCEP Europe B.V.	Sweden
Rolls Technology Inc.*	100% owned by Ampco UES Sub, Inc.	Delaware
Åkers Valji Ravne d.o.o.*	100% owned by FCEP Europe B.V.	Slovenia
Shanxi Åkers TISCO Roll Co. Ltd.*	59.88% owned by Åkers AB	China
Alloys Unlimited and Processing, LLC*	100% owned by Union Electric Steel Corporation	Pennsylvania

The financial statements of subsidiaries marked with an (*) have been consolidated with those of the Corporation. Names of other subsidiaries have been omitted because, considered in the aggregate as a single subsidiary, they would not constitute a significant subsidiary.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 333-174269, No. 333-211242, No. 333-256094, and No. 333-272046) and Form S-1 (No. 333-239446) of Ampco-Pittsburgh Corporation of our report dated March 25, 2024, relating to the consolidated financial statements, which appears in this Annual Report on Form 10-K.

/s/ BDO USA, P.C.

Pittsburgh, Pennsylvania
March 25, 2024

CONSENT OF GNARUS ADVISORS LLC

Gnarus Advisors LLC ("Gnarus") consents to being named in Ampco-Pittsburgh Corporation's Annual Report ("Form 10-K") for the year ended December 31, 2023, in the form and context in which Gnarus is named and to the incorporation by reference of the Form 10-K in Registration Statements Nos. 333-174269, 333-211242, 333-256094 and 333-272046 on Form S-8, and Registration Statement No. 333-239446 on Form S-1.

/s/ Gnarus Advisors LLC

Gnarus Advisors LLC
March 25, 2024

Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, J. Brett McBrayer, certify that:

1. I have reviewed this annual report on Form 10-K of Ampco-Pittsburgh Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a – 15(e) and 15d – 15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a – 15(f) and 15d – 15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

March 25, 2024

By: */s/ J. Brett McBrayer*
Director and Chief Executive Officer
J. Brett McBrayer

Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Michael G. McAuley, certify that:

1. I have reviewed this annual report on Form 10-K of Ampco-Pittsburgh Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a – 15(e) and 15d – 15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a – 15(f) and 15d – 15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

March 25, 2024

By: */s/ Michael G. McAuley*
Senior Vice President, Chief Financial Officer and Treasurer
Michael G. McAuley

Certification Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of Ampco-Pittsburgh Corporation (the "Company") on Form 10-K for the period ended December 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, in the capacity and on the date indicated below, hereby certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to his knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

March 25, 2024

By: */s/ J. Brett McBrayer*
Director and Chief Executive Officer
J. Brett McBrayer

Certification Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of Ampco-Pittsburgh Corporation (the "Company") on Form 10-K for the period ended December 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, in the capacity and on the date indicated below, hereby certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to his knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

March 25, 2024

By: */s/ Michael G. McAuley*
Senior Vice President, Chief Financial Officer and Treasurer
Michael G. McAuley

**AMPCO-PITTSBURGH CORPORATION
CLAWBACK POLICY**

AUGUST 8, 2023

The Board of Directors (the “Board”) of Ampco-Pittsburgh Corporation (the “Company”) believes that it is in the best interests of the Company and its shareholders to adopt this Clawback Policy (this “Policy”), which provides for the recovery of certain incentive-based compensation upon the occurrence of certain events, including an Accounting Restatement (as defined below). This Policy is designed to comply with, and shall be interpreted to be consistent with, Section 10D of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), Rule 10D-1 promulgated under the Exchange Act (“Rule 10D-1”) and Section 303A.14 of the New York Stock Exchange Listed Company Manual (the “Listing Standards”).

1. Administration. Except as specifically set forth herein, this Policy shall be administered by the Compensation Committee of the Board or, if so designated by the Board via a duly adopted resolution of the Board, the Board or another committee of the Board (the Board or such committee charged with administration of this Policy, the “Administrator”). The Administrator is authorized to interpret and construe this Policy and to make all determinations necessary, appropriate or advisable for the administration of this Policy. Any determinations made by the Administrator shall be final and binding on all affected individuals and need not be uniform with respect to each individual covered by the Policy. In the administration of this Policy, the Administrator is authorized and directed to consult with the full Board or such other committees of the Board, such as the Audit Committee, as may be necessary or appropriate as to matters within the scope of such other committee’s responsibility and authority. Subject to any limitation at applicable law, the Administrator may authorize and empower any officer or employee of the Company or any authorized agent of the Company to take any and all actions necessary or appropriate to carry out the purpose and intent of this Policy (other than with respect to any recovery under this Policy involving such officer or employee)

2. Definitions. As used in this Policy, the following definitions shall apply:

- “Accounting Restatement” means an accounting restatement of the Company’s financial statements due to the Company’s material noncompliance with any financial reporting requirement under the securities laws, including any required accounting restatement to correct an error in previously issued financial statements that is material to the previously issued financial statements, or that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period. Notwithstanding the foregoing, the following types of changes to the

Company's financial statements do not represent error corrections, and therefore would likewise not trigger application of this Policy:

- o Retrospective application of a change in accounting principle;
 - o Retrospective revision to reportable segment information due to a change in the structure of the Company's internal organization;
 - o Retrospective reclassification due to a discontinued operation;
 - o Retrospective application of a change in reporting entity, such as from a reorganization of entities under common control; and
 - o Retrospective revision for stock splits, reverse stock splits, stock dividends or other changes in capital structure.
- "Administrator" has the meaning set forth in **Section 1** hereof.
 - "Applicable Period" means the three completed fiscal years immediately preceding the date on which the Company is required to prepare an Accounting Restatement, as well as any transition period (that results from a change in the Company's fiscal year) within or immediately following those three completed fiscal years (except that a transition period that comprises a period of at least nine months shall count as a completed fiscal year).
 - The "date on which the Company is required to prepare an Accounting Restatement" is the earlier to occur of (a) the date the Board, an authorized committee of the Board (e.g., the Audit Committee), or the officer or officers of the Company authorized to take such action if Board action is not required concludes, or reasonably should have concluded, that the Company is required to prepare an Accounting Restatement or (b) the date a court, regulator or other legally authorized body directs the Company to prepare an Accounting Restatement, in each case regardless of if or when the restated financial statements are filed.
 - "Commission" means the U.S. Securities and Exchange Commission.
 - "Covered Executives" means the Company's current and former executive officers, as determined by the Administrator in accordance with the definition of executive officer set forth in Rule 10D-1 and the Listing Standards.
 - "Covered Persons" means such persons listed or described on **Schedule 1** hereto.

· “Erroneously Awarded Compensation” has the meaning set forth in **Section 5** of this Policy.

· A “Financial Reporting Measure” is any measure that is determined and presented in accordance with the accounting principles used in preparing the Company’s financial statements, and any measure that is derived wholly or in part from such measure, whether or not such Financial Reporting Measure is included in a filing with the Commission. Financial Reporting Measures include but are not limited to the following (and any measures derived from the following): price of the Company’s securities listed on a securities exchange; total shareholder return (“TSR”); revenues; net income; operating income; profitability of one or more reportable segments; financial ratios (e.g., accounts receivable turnover and inventory turnover rates); earnings before interest, taxes, depreciation and amortization (“EBITDA”); funds from operations and adjusted funds from operations; liquidity measures (e.g., working capital, operating cash flow); return measures (e.g., return on invested capital, return on assets); earnings measures (e.g., earnings per share); any of such Financial Reporting Measures relative to a peer group, where the Company’s Financial Reporting Measure is subject to an Accounting Restatement; and tax basis income. A Financial Reporting Measure need not be presented within the Company’s financial statements or included in a filing with the Commission.

· “Incentive-Based Compensation” means any compensation that is granted, earned or vested based wholly or in part upon the attainment of a Financial Reporting Measure, including, without limitation, (i) non-equity incentive plan awards that are earned based wholly or in part on satisfying a Financial Reporting Measure performance goal; (ii) bonuses paid from a “bonus pool,” the size of which is determined based wholly or in part on satisfying a Financial Reporting Measure performance goal; (iii) other cash awards based on satisfaction of a Financial Reporting Measure performance goal; (iv) restricted stock, restricted stock units, performance share units, stock options, and stock appreciation rights that are granted or become vested based wholly or in part on satisfying a Financial Reporting Measure performance goal; and (v) proceeds received upon the sale of shares acquired through an incentive plan that were granted or vested based wholly or in part on satisfying a Financial Reporting Measure performance goal.

· Incentive-Based Compensation is “received” for purposes of this Policy in the Company’s fiscal period during which the Financial Reporting Measure specified in the Incentive-Based Compensation award is attained, even if the payment or grant of such Incentive-Based Compensation occurs after the end of that period. All conditions to an award for Incentive-Based Compensation need not be satisfied for the Incentive-Based Compensation to be deemed received

under this Policy. Incentive-Based Compensation is deemed received even if there is a contingent right to payment at that time or payment remains subject to ministerial acts, such as calculating the amount earned or obtaining the approval of the Administrator or the Board.

3. Covered Executives and Covered Persons; Incentive-Based Compensation. Except as set forth in **Section 11** of this Policy, this Policy applies to Incentive-Based Compensation received by a Covered Executive (a) after beginning services as a Covered Executive; (b) if that person served as a Covered Executive at any time during the performance period for such Incentive-Based Compensation; and (c) while the Company had a listed class of securities on a national securities exchange. Notwithstanding the foregoing, Appendix A to this Policy applies to Incentive-Based Compensation and certain other compensation described in Appendix A hereto that is received by a Covered Person while the Company had a listed class of securities on a national securities exchange.

4. Required Recoupment of Erroneously Awarded Compensation in the Event of an Accounting Restatement. In the event the Company is required to prepare an Accounting Restatement, the Company shall promptly recoup the amount of any Erroneously Awarded Compensation received by any Covered Executive, as calculated pursuant to **Section 5** hereof, during the Applicable Period.

5. Erroneously Awarded Compensation: Amount Subject to Recovery. The amount of “Erroneously Awarded Compensation” subject to recovery under this Policy, as determined by the Administrator, is the amount of Incentive-Based Compensation received by the Covered Executive that exceeds the amount of Incentive-Based Compensation that would have been received by the Covered Executive had it been determined based on the restated amounts. Erroneously Awarded Compensation shall be computed by the Administrator without regard to any taxes paid by the Covered Executive in respect of the Erroneously Awarded Compensation. With respect to any compensation plans or programs that take into account Incentive-Based Compensation, the amount of Erroneously Awarded Compensation subject to recovery hereunder includes, but is not limited to, the amount contributed to any notional account based on Erroneously Awarded Compensation and any earnings accrued to date on that notional amount.

For Incentive-Based Compensation based on stock price or TSR: (a) the Administrator shall determine the amount of Erroneously Awarded Compensation based on a reasonable estimate of the effect of the Accounting Restatement on the stock price or TSR upon which the Incentive-Based Compensation was received; and (b) the Company shall maintain documentation of the determination of that reasonable estimate and provide such documentation to the New York Stock Exchange (“NYSE”).

6. Method of Recoupment. The Administrator shall determine, in its sole discretion, the timing and method for promptly recouping Erroneously Awarded Compensation hereunder, as well as a reasonable amount of interest, as determined by the Administrator, to compensate the Company for the time-value of the Erroneously Awarded Compensation and reimbursement of direct expenses to recover the Erroneously Awarded Compensation, including without limitation any legal fees incurred by the Company, which may include without limitation (a) seeking reimbursement of all or part of any cash or equity-based award, (b) cancelling prior cash or equity-based awards, whether vested or unvested or paid or unpaid, (c) cancelling or offsetting against any planned future cash or equity-based awards, (d) forfeiture of deferred compensation, subject to compliance with Section 409A of the Internal Revenue Code and the regulations promulgated thereunder and (e) any other method authorized by applicable law or contract. Subject to compliance with any applicable law, the Administrator may affect recovery under this Policy from any amount otherwise payable to the Covered Executive, including amounts payable to such individual under any otherwise applicable Company plan or program, including base salary, bonuses or commissions and compensation previously deferred by the Covered Executive.

The Company is authorized and directed pursuant to this Policy to recoup Erroneously Awarded Compensation in compliance with this Policy unless the Administrator has determined that recovery would be impracticable solely for the following limited reasons, and subject to the following procedural and disclosure requirements:

- The direct expense paid to a third party to assist in enforcing the Policy would exceed the amount to be recovered. Before concluding that it would be impracticable to recover any amount of Erroneously Awarded Compensation based on expense of enforcement, the Administrator must make a reasonable attempt to recover such erroneously awarded compensation, document such reasonable attempt(s) to recover and provide that documentation to NYSE;
- Recovery would violate home country law of the Company where that law was adopted prior to November 28, 2022. Before concluding that it would be impracticable to recover any amount of Erroneously Awarded Compensation based on violation of home country law of the Company, the Administrator must satisfy the applicable opinion and disclosure requirements of Rule 10D-1 and the Listing Standards; or
- Recovery would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the Company, to fail to meet the requirements of 26 U.S.C. 401(a)(13) or 26 U.S.C. 411(a) and regulations thereunder.

7. No Indemnification of Covered Executives. Notwithstanding the terms of any indemnification or insurance policy or any contractual arrangement with any Covered Executive that may be interpreted to the contrary, the Company shall not indemnify any Covered Executives against the loss of any Erroneously Awarded Compensation, including any payment or reimbursement for the cost of third-party insurance purchased by any Covered Executives to fund potential clawback obligations under this Policy.

8. Administrator Indemnification. Any members of the Administrator, and any other members of the Board who assist in the administration of this Policy, shall not be personally liable for any action, determination or interpretation made with respect to this Policy and shall be fully indemnified by the Company to the fullest extent under applicable law and Company policy with respect to any such action, determination or interpretation. The foregoing sentence shall not limit any other rights to indemnification of the members of the Board under applicable law or Company policy.

9. Effective Date; Retroactive Application. This Policy shall be effective as of October 2, 2023 (the “Effective Date”). The terms of this Policy shall apply to any Incentive-Based Compensation that is received by Covered Executives or any Covered Person on or after the Effective Date, even if such Incentive-Based Compensation was approved, awarded, granted or paid to Covered Executives or Covered Persons prior to the Effective Date. Without limiting the generality of **Section 6** hereof, and subject to applicable law, the Administrator may affect recovery under this Policy from any amount of compensation approved, awarded, granted, payable or paid to the Covered Executive or the Covered Person prior to, on or after the Effective Date.

10. Amendment; Termination. The Board may amend, modify, supplement, rescind or replace all or any portion of this Policy at any time and from time to time in its discretion, and shall amend this Policy as it deems necessary to comply with applicable law or any rules or standards adopted by a national securities exchange on which the Company's securities are listed.

11. Other Recoupment Rights; Company Claims. The Board intends that this Policy shall be applied to the fullest extent of the law. Any right of recoupment under this Policy is in addition to, and not in lieu of, any other remedies or rights of recoupment that may be available to the Company under applicable law or pursuant to the terms of any similar policy in any employment agreement, equity award agreement, or similar agreement and any other legal remedies available to the Company.

Nothing contained in this Policy, and no recoupment or recovery as contemplated by this Policy, shall limit any claims, damages or other legal remedies the

Company or any of its affiliates may have against a Covered Executive arising out of or resulting from any actions or omissions by the Covered Executive.

Notwithstanding anything set forth in this Policy, by signing the acknowledgement below, the Company's Chief Executive Officer and Chief Financial Officer acknowledge that in the event the Company is required to prepare an accounting restatement subject to Section 304 of the Sarbanes-Oxley Act of 2002, as amended ("Section 304"), she or he shall forfeit such amounts required pursuant to Section 304.

12. Successors. This Policy shall be binding and enforceable against all Covered Executives and their beneficiaries, heirs, executors, administrators or other legal representatives.

13. Governing Law, Dispute Resolution and Venue. This Policy and all acts and transactions pursuant hereto and the rights and obligations of the Parties hereto will be governed, construed and interpreted in accordance with the laws of the Commonwealth of Pennsylvania, without giving effect to such state's conflict of laws rules.

Any and all disputes relating to, concerning or arising from this Policy, or relating to, concerning or arising from the relationship between the parties evidenced by this Policy, will be brought and heard exclusively in the United States District Court for the Western District of Pennsylvania or the state court of the Commonwealth of Pennsylvania located in Allegheny County, Pennsylvania. Each of the Company and each person subject to this Policy hereby represents and agrees that such party is subject to the personal jurisdiction of said courts; hereby irrevocably consents to the jurisdiction of such courts in any legal or equitable proceedings related to, concerning, or arising from such dispute, and waives, to the fullest extent permitted by law, any objection which such party may now or hereafter have that the laying of the venue of any legal or equitable proceedings related to, concerning, or arising from such dispute which is brought in such courts is improper or that such proceedings have been brought in an inconvenient forum.

14. Exhibit Filing Requirement. A copy of this Policy and any amendments thereto shall be posted on the Company's website and filed as an exhibit to the Company's annual report on Form 10-K.

Schedule 1

Covered Persons

- Executive Officers (including NEOs (as defined below))
 - Participants in the Company's short- and long-term incentive compensation plans
-

Appendix A

Supplemental Terms Applicable to Covered Persons

In addition to the terms set forth in the Clawback Policy (as amended from time to time, the “Policy”) of Ampco-Pittsburgh Corporation (the “Company”), the Board of Directors (the “Board”) of the Company believes that it is in the best interests of the Company and its shareholders to adopt these Supplemental Terms Applicable to Covered Persons (the “Supplemental Terms”), which applies in the event of any fraud or intentional misconduct by one or more Covered Persons (as defined in the Policy) that results in the required Accounting Restatement. Capitalized terms used, but not defined in these Supplemental Terms shall have the meaning ascribed to them in the Policy.

In the event of such an Accounting Restatement, the Administrator shall review the circumstances that caused the Accounting Restatement and shall take such action as it deems appropriate to prevent its recurrence, which may include requiring the reimbursement of certain compensation as provided in these Supplemental Terms.

Without limiting the foregoing, the Administrator may require reimbursement to the Company of the Erroneously Awarded Compensation from any Incentive-Based Compensation awarded to an Executive in the following circumstances:

- an Accounting Restatement is required as a result of any fraud or intentional misconduct by one or more Covered Person(s); and
- the Administrator determines in its discretion that a lower amount of Incentive-Based Compensation would have been paid to such Covered Person(s), but for the error giving rise to the Accounting Restatement such that the Covered Person(s) received Erroneously Awarded Compensation as a result.

Upon any Accounting Restatement, the Administrator may, in its sole discretion, recover from any named executive officer (as defined in Item 402 of Regulation S-K) of the Company (each an “NEO”) any equity-based compensation awards (whether subject to time- or performance-based vesting, and whether vested or unvested).

Sections 1, 6-8 and 10-13 of the Policy are incorporated by reference into these Supplemental Terms.

These Supplemental Terms shall apply to any Incentive-Based Compensation paid to a Covered Person from and after the date such Covered Person first signs a related consent agreement thus becoming subject to the terms hereof, and during the Applicable Period with respect to an Accounting Restatement.

