UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON D.C. 20549

FORM 10-Q

(Mark One)

x **Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

For the Quarterly Period Ended June 30, 2017

Or

o **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 001-10716

TRIMAS CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**38-2687639**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)

38505 Woodward Avenue, Suite 200

Bloomfield Hills, Michigan 48304

(Address of principal executive offices, including zip code)

(248) 631-5450

(Registrant's telephone number, including area code)

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 x No o.

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No o.

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 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	x	Accelerated filer	o
Non-accelerated filer	o	(Do not check if a smaller reporting company)	
		Smaller reporting company	o
		Emerging growth company	o

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. o

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

As of July 20, 2017, the number of outstanding shares of the Registrant's common stock, $0.01 par value, was 45,721,160 shares.

TriMas Corporation

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Forward-Looking Statements

This report may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 about our financial condition, results of operations and business. These forward-looking statements can be identified by the use of forward-looking words, such as “may,” “could,” “should,” “estimate,” “project,” “forecast,” “intend,” “expect,” “anticipate,” “believe,” “target,” “plan” or other comparable words, or by discussions of strategy that may involve risks and uncertainties.

These forward-looking statements are subject to numerous assumptions, risks and uncertainties which could materially affect our business, financial condition or future results including, but not limited to: the Company's leverage; liabilities imposed by the Company's debt instruments; market demand; competitive factors; supply constraints; material and energy costs; risks and uncertainties associated with intangible assets, including goodwill or other intangible asset impairment charges; technology factors; litigation; government and regulatory actions; the Company's accounting policies; future trends; general economic and currency conditions; the potential impact of Brexit; various conditions specific to the Company's business and industry; the Company’s ability to identify attractive acquisition candidates, successfully integrate acquired operations or realize the intended benefits of such acquisitions; potential costs and savings related to facility consolidation activities; future prospects of the Company; and other risks that are discussed in Part I, Item 1A, "Risk Factors," in our Annual Report on Form 10-K for the year ended December 31, 2016. The risks described in our Annual Report on Form 10-K and elsewhere in this report are not the only risks facing our Company. Additional risks and uncertainties not currently known to us or that we currently deemed to be immaterial also may materially adversely affect our business, financial position and results of operations or cash flows.

The cautionary statements set forth above should be considered in connection with any subsequent written or oral forward-looking statements that we or persons acting on our behalf may issue. We caution readers not to place undue reliance on the statements, which speak only as of the date of this report. We do not undertake any obligation to review or confirm analysts' expectations or estimates or to release publicly any revisions to any forward-looking statement to reflect events or circumstances after the date of this report or to reflect the occurrence of unanticipated events.

We disclose important factors that could cause our actual results to differ materially from our expectations implied by our forward-looking statements under Part I, Item 2, "*Management's Discussion and Analysis of Financial Condition and Results of Operations*," and elsewhere in this report. These cautionary statements qualify all forward-looking statements attributed to us or persons acting on our behalf. When we indicate that an event, condition or circumstance could or would have an adverse effect on us, we mean to include effects upon our business, financial and other conditions, results of operations, prospects and ability to service our debt.

PART I. FINANCIAL INFORMATION

Item 1. Consolidated Financial Statements

TriMas Corporation
Consolidated Balance Sheet
(Dollars in thousands)

	June 30, 2017	December 31, 2016
Assets	**(unaudited)**	
Current assets:		
Cash and cash equivalents	$ 22,680	$ 20,710
Receivables, net of reserves of approximately $5.0 million and $4.6 million as of June 30, 2017 and December 31, 2016, respectively	123,790	111,570
Inventories	156,330	160,460
Prepaid expenses and other current assets	9,770	16,060
Total current assets	312,570	308,800
Property and equipment, net	183,760	179,160
Goodwill	317,850	315,080
Other intangibles, net	204,110	213,920
Other assets	34,840	34,690
Total assets	$ 1,053,130	$ 1,051,650
Liabilities and Shareholders' Equity		
Current liabilities:		
Current maturities, long-term debt	$ 13,760	$ 13,810
Accounts payable	77,060	72,270
Accrued liabilities	42,160	47,190
Total current liabilities	132,980	133,270
Long-term debt, net	332,740	360,840
Deferred income taxes	8,200	5,910
Other long-term liabilities	50,750	51,910
Total liabilities	524,670	551,930
Preferred stock, $0.01 par: Authorized 100,000,000 shares; Issued and outstanding: None	—	—
Common stock, $0.01 par: Authorized 400,000,000 shares; Issued and outstanding: 45,720,921 shares at June 30, 2017 and 45,520,598 shares at December 31, 2016	460	460
Paid-in capital	820,440	817,580
Accumulated deficit	(272,080)	(293,920)
Accumulated other comprehensive loss	(20,360)	(24,400)
Total shareholders' equity	528,460	499,720
Total liabilities and shareholders' equity	$ 1,053,130	$ 1,051,650

The accompanying notes are an integral part of these financial statements.

TriMas Corporation
Consolidated Statement of Income
(Unaudited—dollars in thousands, except for per share amounts)

	Three months ended June 30, 2017	Three months ended June 30, 2016	Six months ended June 30, 2017	Six months ended June 30, 2016
Net sales	$ 213,370	$ 203,320	$ 413,200	$ 406,200
Cost of sales	(153,960)	(146,240)	(302,030)	(293,200)
Gross profit	59,410	57,080	111,170	113,000
Selling, general and administrative expenses	(33,160)	(38,420)	(69,180)	(77,890)
Operating profit	26,250	18,660	41,990	35,110
Other expense, net:				
Interest expense	(3,420)	(3,310)	(6,970)	(6,750)
Other income (expense), net	30	130	(580)	70
Other expense, net	(3,390)	(3,180)	(7,550)	(6,680)
Income before income tax expense	22,860	15,480	34,440	28,430
Income tax expense	(8,010)	(5,000)	(12,600)	(9,650)
Net income	$ 14,850	$ 10,480	$ 21,840	$ 18,780
Basic earnings per share:				
Net income per share	$ 0.32	$ 0.23	$ 0.48	$ 0.41
Weighted average common shares—basic	45,717,697	45,429,851	45,644,096	45,354,421
Diluted earnings per share:				
Net income per share	$ 0.32	$ 0.23	$ 0.48	$ 0.41
Weighted average common shares—diluted	45,922,416	45,726,348	45,915,687	45,690,582

The accompanying notes are an integral part of these financial statements.

TriMas Corporation
Consolidated Statement of Comprehensive Income
(Unaudited—dollars in thousands)

	Three months ended June 30,		Six months ended June 30,	
	2017	**2016**	**2017**	**2016**
Net income	$ 14,850	$ 10,480	$ 21,840	$ 18,780
Other comprehensive income (loss):				
Defined benefit pension and postretirement plans (Note 13)	160	150	330	300
Foreign currency translation	1,930	(4,080)	3,730	(6,740)
Derivative instruments (Note 8)	(400)	(1,330)	(20)	(4,290)
Total other comprehensive income (loss)	1,690	(5,260)	4,040	(10,730)
Total comprehensive income	$ 16,540	$ 5,220	$ 25,880	$ 8,050

The accompanying notes are an integral part of these financial statements.

TriMas Corporation
Consolidated Statement of Cash Flows
(Unaudited—dollars in thousands)

	Six months ended June 30,	
	2017	**2016**
Cash Flows from Operating Activities:		
Net income	$ 21,840	$ 18,780
Adjustments to reconcile net income to net cash provided by operating activities:		
Loss on dispositions of assets	3,030	1,120
Depreciation	13,050	11,980
Amortization of intangible assets	9,990	10,190
Amortization of debt issue costs	690	670
Deferred income taxes	2,060	230
Non-cash compensation expense	3,340	4,140
Tax effect from stock based compensation	—	(170)
Increase in receivables	(11,490)	(3,660)
Decrease in inventories	2,850	1,130
Decrease in prepaid expenses and other assets	6,280	10,650
Decrease in accounts payable and accrued liabilities	(1,930)	(21,710)
Other operating activities	(120)	(410)
Net cash provided by operating activities	49,590	32,940
Cash Flows from Investing Activities:		
Capital expenditures	(16,910)	(12,960)
Net proceeds from disposition of property and equipment	1,780	120
Net cash used for investing activities	(15,130)	(12,840)
Cash Flows from Financing Activities:		
Repayments of borrowings on term loan facilities	(6,910)	(6,950)
Proceeds from borrowings on revolving credit and accounts receivable facilities	300,050	216,580
Repayments of borrowings on revolving credit and accounts receivable facilities	(324,900)	(225,050)
Shares surrendered upon options and restricted stock vesting to cover taxes	(480)	(650)
Other financing activities	(250)	180
Net cash used for financing activities	(32,490)	(15,890)
Cash and Cash Equivalents:		
Net increase for the period	1,970	4,210
At beginning of period	20,710	19,450
At end of period	$ 22,680	$ 23,660
Supplemental disclosure of cash flow information:		
Cash paid for interest	$ 6,060	$ 5,860
Cash paid for taxes	$ 10,600	$ 3,170

The accompanying notes are an integral part of these financial statements.

TriMas Corporation
Consolidated Statement of Shareholders' Equity
Six Months Ended June 30, 2017
(Unaudited—dollars in thousands)

	Common Stock	Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total
Balances, December 31, 2016	$ 460	$ 817,580	$ (293,920)	$ (24,400)	$ 499,720
Net income	—	—	21,840	—	21,840
Other comprehensive income	—	—	—	4,040	4,040
Shares surrendered upon options and restricted stock vesting to cover taxes	—	(480)	—	—	(480)
Non-cash compensation expense	—	3,340	—	—	3,340
Balances, June 30, 2017	$ 460	$ 820,440	$ (272,080)	$ (20,360)	$ 528,460

The accompanying notes are an integral part of these financial statements.

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

1. Basis of Presentation

TriMas Corporation ("TriMas" or the "Company"), and its consolidated subsidiaries, is a global manufacturer and distributor of products for commercial, industrial and consumer markets. The Company is principally engaged in the following reportable segments with diverse products and market channels: Packaging, Aerospace, Energy and Engineered Components. See Note 10, "*Segment Information*," for further information on each of the Company's reportable segments.

The accompanying consolidated financial statements include the accounts of the Company and its subsidiaries and, in the opinion of management, contain all adjustments, including adjustments of a normal and recurring nature, necessary for a fair presentation of financial position and results of operations. Results of operations for interim periods are not necessarily indicative of results for the full year. The accompanying consolidated financial statements and notes thereto should be read in conjunction with the Company's 2016 Annual Report on Form 10-K.

2. New Accounting Pronouncements

Recently Issued Accounting Pronouncements

In March 2017, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2017-07, "Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost" ("ASU 2017-07"). ASU 2017-07 requires that the service cost component of net period pension and postretirement benefit cost be presented in the same line item as other employee compensation costs, while the other components be presented separately as non-operating income (expense). ASU 2017-07 also allows only the service cost component to be eligible for capitalization when applicable. ASU 2017-07 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2017, with early adoption permitted. The Company is in the process of assessing the impact of adoption on its consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, "Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment" ("ASU 2017-04"), which simplifies the test for goodwill impairment by eliminating the requirement to perform a hypothetical purchase price allocation to measure the amount of goodwill impairment. ASU 2017-04 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2019, with early adoption permitted. The Company is in the process of assessing the impact of adoption on its consolidated financial statements.

In January 2017, the FASB issued ASU 2017-01, "Business Combinations (Topic 805): Clarifying the Definition of a Business" ("ASU 2017-01"). ASU 2017-01 provides guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. ASU 2017-01 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2017, with early adoption permitted under certain circumstances. The Company is in the process of assessing the impact of adoption on its consolidated financial statements.

In October 2016, the FASB issued ASU 2016-16, "Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory" ("ASU 2016-16"), which requires that income tax consequences of an intra-entity transfer of an asset other than inventory are recognized when the transfer occurs. ASU 2016-16 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2017, and is to be applied using a modified retrospective approach with early adoption permitted. The Company is in the process of assessing the impact of adoption on its consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments" ("ASU 2016-15"), which clarifies how certain cash receipts and cash payments are presented and classified in the statement of cash flows. ASU 2016-15 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2017, and is to be applied using a retrospective approach with early adoption permitted. The Company is in the process of assessing the impact of adoption on its consolidated financial statements.

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)" ("ASU 2016-02"), which requires that lessees, at the lease commencement date, recognize a lease liability representing the lessee's obligation to make lease payments arising from a lease as well as a right-of-use asset, which represents the lessee's right to use, or control the use of a specified asset, for the lease term. The new guidance also aligns lessor accounting to the lessee accounting model and to Topic 606, "Revenue from Contracts with Customers." ASU 2016-02 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2018, and is to be applied using a modified retrospective approach with early adoption permitted. The Company is in the process of assessing the impact of the adoption on its consolidated financial statements.

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers (Topic 606)" ("ASU 2014-09"). ASU 2014-09 requires that an entity recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. Since the issuance of the original standard, the FASB has issued several subsequent updates as disclosed within the Company's 2016 Annual Report on Form 10-K. Although the Company is still in the process of evaluating its contracts, the Company does not believe the adoption of this standard will have a material impact on the amount or timing of its revenues. The Company expects to adopt this standard on January 1, 2018 utilizing the modified retrospective approach. The Company continues to evaluate the impact of the adoption on its consolidated financial statements.

3. Facility Closures

Reynosa, Mexico facility

In March 2017, the Company announced plans within the Energy reportable segment to cease production at its Reynosa, Mexico facility, and consolidate production into its Houston, Texas facility. During the second quarter of 2017, upon the cease use date of the facility, the Company recorded a pre-tax charge of approximately $1.5 million within cost of sales for estimated future unrecoverable lease obligations, net of estimated sublease recoveries, for the lease that expires in 2025. In addition, in the second quarter of 2017, the Company incurred approximately $1.2 million of pre-tax non-cash charges within cost of sales related to accelerated depreciation expense as a result of shortening the expected lives on certain machinery, equipment and leasehold improvement assets that the Company no longer used following the facility closure.

Wolverhampton, United Kingdom facility

In March 2017, the Company exited its Wolverhampton, United Kingdom facility within the Energy reportable segment. In connection with this action, during the first quarter of 2017 the Company recorded pre-tax charges of approximately $3.5 million within selling, general and administrative expenses, of which approximately $3.2 million were non-cash charges related to the disposal of certain assets.

4. Goodwill and Other Intangible Assets

Changes in the carrying amount of goodwill for the six months ended June 30, 2017 are summarized as follows (dollars in thousands):

	Packaging	Aerospace	Energy	Engineered Components	Total
Balance, December 31, 2016	$ 162,090	$ 146,430	$ —	$ 6,560	$ 315,080
Foreign currency translation and other	2,770	—	—	—	2,770
Balance, June 30, 2017	$ 164,860	$ 146,430	$ —	$ 6,560	$ 317,850

TRIMAS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(unaudited)

The Company amortizes its other intangible assets over periods ranging from one to 30 years. The gross carrying amounts and accumulated amortization of the Company's other intangibles as of June 30, 2017 and December 31, 2016 are summarized below (dollars in thousands):

	As of June 30, 2017		As of December 31, 2016	
Intangible Category by Useful Life	**Gross Carrying Amount**	**Accumulated Amortization**	**Gross Carrying Amount**	**Accumulated Amortization**
Finite-lived intangible assets:				
Customer relationships, 5 – 12 years	$ 73,840	$ (37,130)	$ 73,570	$ (33,200)
Customer relationships, 15 – 25 years	132,230	(48,420)	132,230	(44,970)
Total customer relationships	206,070	(85,550)	205,800	(78,170)
Technology and other, 1 – 15 years	57,510	(27,720)	57,470	(26,040)
Technology and other, 17 – 30 years	43,300	(32,430)	43,300	(31,370)
Total technology and other	100,810	(60,150)	100,770	(57,410)
Indefinite-lived intangible assets:				
Trademark/Trade names	42,930	—	42,930	—
Total other intangible assets	$ 349,810	$ (145,700)	$ 349,500	$ (135,580)

Amortization expense related to intangible assets as included in the accompanying consolidated statement of income is summarized as follows (dollars in thousands):

	Three months ended June 30,		Six months ended June 30,	
	2017	**2016**	**2017**	**2016**
Technology and other, included in cost of sales	$ 1,360	$ 1,390	$ 2,710	$ 2,770
Customer relationships, included in selling, general and administrative expenses	3,640	3,700	7,280	7,420
Total amortization expense	$ 5,000	$ 5,090	$ 9,990	$ 10,190

5. Inventories

Inventories consist of the following components (dollars in thousands):

	June 30, 2017	December 31, 2016
Finished goods	$ 86,230	$ 95,290
Work in process	25,210	22,930
Raw materials	44,890	42,240
Total inventories	$ 156,330	$ 160,460

6. Property and Equipment, Net

Property and equipment consists of the following components (dollars in thousands):

	June 30, 2017	December 31, 2016
Land and land improvements	$ 15,120	$ 14,910
Buildings	71,270	71,100
Machinery and equipment	291,280	281,180
	377,670	367,190
Less: Accumulated depreciation	193,910	188,030
Property and equipment, net	$ 183,760	$ 179,160

Depreciation expense as included in the accompanying consolidated statement of income is as follows (dollars in thousands):

	Three months ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Depreciation expense, included in cost of sales	$ 6,740	$ 5,240	$ 11,940	$ 10,470
Depreciation expense, included in selling, general and administrative expenses	510	800	1,110	1,510
Total depreciation expense	$ 7,250	$ 6,040	$ 13,050	$ 11,980

7. Long-term Debt

The Company's long-term debt consists of the following (dollars in thousands):

	June 30, 2017	December 31, 2016
Credit Agreement	$ 298,670	$ 333,720
Receivables facility and other	52,100	45,650
Debt issuance costs	(4,270)	(4,720)
	346,500	374,650
Less: Current maturities, long-term debt	13,760	13,810
Long-term debt, net	$ 332,740	$ 360,840

Credit Agreement

The Company is party to a credit agreement (the "Credit Agreement"), consisting of a $500.0 million senior secured revolving credit facility, which permits borrowings denominated in specific foreign currencies ("Foreign Currency Loans"), subject to a $75.0 million sub limit, which matures on June 30, 2020 and is subject to interest at London Interbank Offered Rates ("LIBOR") plus 1.625%, and a $275.0 million senior secured term loan A facility ("Term Loan A Facility"), which matures on June 30, 2020 and is subject to interest at LIBOR plus 1.625%. The interest rate spread is based upon the leverage ratio, as defined, as of the most recent determination date.

The Credit Agreement also provides incremental term loan and/or revolving credit facility commitments in an amount not to exceed the greater of $300.0 million and an amount such that, after giving effect to such incremental commitments and the incurrence of any other indebtedness substantially simultaneously with the making of such commitments, the senior secured net leverage ratio, as defined, is no greater than 2.50 to 1.00. The terms and conditions of any incremental term loan and/or revolving credit facility commitments must be no more favorable than the existing credit facility.

TRIMAS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(unaudited)

The Company may be required to prepay a portion of its Term Loan A Facility in an amount equal to a percentage of the Company's excess cash flow, as defined, with such percentage based on the Company's leverage ratio, as defined. As of June 30, 2017, no amounts are due under this provision.

The Company's revolving credit facility allows for the issuance of letters of credit, not to exceed $40.0 million in aggregate. At June 30, 2017, the Company had approximately $47.7 million outstanding under its revolving credit facility and had approximately $436.0 million potentially available after giving effect to approximately $16.3 million of letters of credit issued and outstanding. At December 31, 2016, the Company had approximately $75.9 million outstanding under its revolving credit facility and had approximately $408.2 million potentially available after giving effect to approximately $15.9 million of letters of credit issued and outstanding. However, including availability under its accounts receivable facility and after consideration of leverage restrictions contained in the Credit Agreement, the Company had approximately $176.7 million and $126.5 million at June 30, 2017 and December 31, 2016, respectively, of borrowing capacity available for general corporate purposes.

Principal payments required under the Credit Agreement for the Term Loan A Facility are approximately $3.4 million due each fiscal quarter from December 2015 through September 2018 and approximately $5.2 million due each fiscal quarter from December 2018 through March 2020, with final payment of approximately $202.8 million due on June 30, 2020.

The debt under the Credit Agreement is an obligation of the Company and certain of its domestic subsidiaries and is secured by substantially all of the assets of such parties. Borrowings under the $75.0 million foreign currency sub limit of the $500.0 million senior secured revolving credit facility are secured by a pledge of the assets of the foreign subsidiary borrowers that are a party to the agreement. The Credit Agreement also contains various negative and affirmative covenants and other requirements affecting the Company and its subsidiaries, including restrictions on the incurrence of debt, liens, mergers, investments, loans, advances, guarantee obligations, acquisitions, assets dispositions, sale-leaseback transactions, hedging agreements, dividends and other restricted payments, transactions with affiliates, restrictive agreements and amendments to charters, bylaws, and other material documents. The terms of the Credit Agreement also require the Company and its subsidiaries to meet certain restrictive financial covenants and ratios computed quarterly, including a maximum leverage ratio (total consolidated indebtedness plus outstanding amounts under the accounts receivable securitization facility over consolidated EBITDA, as defined) and a minimum interest expense coverage ratio (consolidated EBITDA, as defined, over cash interest expense, as defined). At June 30, 2017, the Company was in compliance with its financial covenants contained in the Credit Agreement.

As of June 30, 2017 and December 31, 2016, the Company's Term Loan A Facility traded at approximately 99.6% of par value and the Company's revolving credit facility traded at approximately 99.3% of par value. The valuations of the Credit Agreement were determined based on Level 2 inputs under the fair value hierarchy, as defined.

Receivables Facility

The Company is party to an accounts receivable facility through TSPC, Inc. ("TSPC"), a wholly-owned subsidiary, to sell trade accounts receivable of substantially all of the Company's domestic business operations. Under this facility, TSPC, from time to time, may sell an undivided fractional ownership interest in the pool of receivables up to $75.0 million to a third-party multi-seller receivables funding company. The net amount financed under the facility is less than the face amount of accounts receivable by an amount that approximates the purchaser's financing costs. The cost of funds under this facility consisted of a 1-month LIBOR-based rate plus a usage fee of 1.00% and a fee on the unused portion of the facility of 0.35% as of June 30, 2017 and 2016.

The Company had approximately $52.0 million and $45.5 million outstanding under the facility as of June 30, 2017 and December 31, 2016, respectively, and approximately $9.8 million and $10.1 million available but not utilized as of June 30, 2017 and December 31, 2016, respectively. Aggregate costs incurred under the facility were approximately $0.3 million and $0.2 million for the three months ended June 30, 2017 and 2016, and $0.6 million and $0.4 million for the six months ended June 30, 2017 and 2016, respectively, and are included in interest expense in the accompanying consolidated statement of income. The facility expires on June 30, 2020.

The cost of funds fees incurred are determined by calculating the estimated present value of the receivables sold compared to their carrying amount. The estimated present value factor is based on historical collection experience and a discount rate based on a 1-month LIBOR-based rate plus the usage fee discussed above and is computed in accordance with the terms of the agreement. As of June 30, 2017, the cost of funds under the facility was based on an average liquidation period of the portfolio of approximately 1.7 months and an average discount rate of 1.9%.

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

8. Derivative Instruments

The Company utilizes interest rate swap agreements to fix the LIBOR-based variable portion of the interest rate on its long-term debt. Terms of the interest rate swap agreements require the Company to receive a variable interest rate and pay a fixed interest rate. As of June 30, 2017, the Company had interest rate swap agreements in place that hedge a declining notional value of debt ranging from approximately $238.4 million to approximately $192.7 million, amortizing consistent with future scheduled debt principal payments. The interest rate swap agreements establish fixed interest rates in a range of 0.74% to 2.68% with various expiration terms extending to June 30, 2020. At inception, the interest rate swaps were and continue to be designated as cash flow hedges.

As of June 30, 2017 and December 31, 2016, the fair value carrying amount of the Company's derivative instruments are recorded as follows (dollars in thousands):

		Asset / (Liability) Derivatives	
	Balance Sheet Caption	June 30, 2017	December 31, 2016
Derivatives designated as hedging instruments			
Interest rate swaps	Prepaid expenses and other current assets	$ 160	$ 160
Interest rate swaps	Accrued liabilities	(1,030)	(870)
Interest rate swaps	Other long-term liabilities	(3,240)	(3,360)
Total derivatives designated as hedging instruments		$ (4,110)	$ (4,070)

The following table summarizes the loss recognized in accumulated other comprehensive income or loss ("AOCI") as of June 30, 2017 and December 31, 2016, and the amounts reclassified from AOCI into earnings for the three and six months ended June 30, 2017 and 2016 (dollars in thousands):

	Amount of Loss Recognized in AOCI on Derivative (Effective Portion, net of tax)			Amount of Loss Reclassified from AOCI into Earnings			
				Three months ended June 30,		Six months ended June 30,	
	As of June 30, 2017	As of December 31, 2016	Location of Loss Reclassified from AOCI into Earnings (Effective Portion)	2017	2016	2017	2016
Derivatives designated as hedging instruments							
Interest rate swaps	$ (2,540)	$ (2,520)	Interest expense	$ (90)	$ (110)	$ (340)	$ (220)

Over the next 12 months, the Company expects to reclassify approximately $0.9 million of pre-tax deferred losses from AOCI to interest expense as the related interest payments for the designated interest rate swaps are funded.

TRIMAS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(unaudited)

The fair value of the Company's derivatives are estimated using an income approach based on valuation techniques to convert future amounts to a single, discounted amount. Estimates of the fair value of the Company's interest rate swaps use observable inputs such as interest rate yield curves. Fair value measurements and the fair value hierarchy level for the Company's assets and liabilities measured at fair value on a recurring basis as of June 30, 2017 and December 31, 2016 are shown below (dollars in thousands):

	Description	Frequency	Asset / (Liability)	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
June 30, 2017	Interest rate swaps	Recurring	$ (4,110)	$ —	$ (4,110)	$ —
December 31, 2016	Interest rate swaps	Recurring	$ (4,070)	$ —	$ (4,070)	$ —

9. Commitments and Contingencies

Asbestos

As of June 30, 2017, the Company was a party to 609 pending cases involving an aggregate of 5,274 claims primarily alleging personal injury from exposure to asbestos containing materials formerly used in gaskets (both encapsulated and otherwise) manufactured or distributed by certain of its subsidiaries for use primarily in the petrochemical refining and exploration industries. The following chart summarizes the number of claims, number of claims filed, number of claims dismissed, number of claims settled, the average settlement amount per claim and the total defense costs, excluding amounts reimbursed under the Company's primary insurance, at the applicable date and for the applicable periods:

	Claims pending at beginning of period	Claims filed during period	Claims dismissed during period	Claims settled during period	Average settlement amount per claim during period	Total defense costs during period
Six Months Ended June 30, 2017	5,339	102	151	16	$ 6,422	$ 1,164,500
Fiscal Year Ended December 31, 2016	6,242	140	1,009	34	$ 15,624	$ 2,920,000

In addition, the Company acquired various companies to distribute its products that had distributed gaskets of other manufacturers prior to acquisition. The Company believes that many of its pending cases relate to locations at which none of its gaskets were distributed or used.

The Company may be subjected to significant additional asbestos-related claims in the future, the cost of settling cases in which product identification can be made may increase, and the Company may be subjected to further claims in respect of the former activities of its acquired gasket distributors. The Company is unable to make a meaningful statement concerning the monetary claims made in the asbestos cases given that, among other things, claims may be initially made in some jurisdictions without specifying the amount sought or by simply stating the requisite or maximum permissible monetary relief, and may be amended to alter the amount sought. The large majority of claims do not specify the amount sought. Of the 5,274 claims pending at June 30, 2017, 58 set forth specific amounts of damages (other than those stating the statutory minimum or maximum). At June 30, 2017, of the 58 claims that set forth specific amounts, there were no claims seeking specific amounts for punitive damages. Below is a breakdown of the amount sought for those claims seeking specific amounts:

	Compensatory		
Range of damages sought (dollars in millions)	**$0.0 to $0.6**	**$0.6 to $5.0**	**$5.0+**
Number of claims	—	16	42

In addition, relatively few of the claims have reached the discovery stage and even fewer claims have gone past the discovery stage.

Total settlement costs (exclusive of defense costs) for all such cases, some of which were filed over 20 years ago, have been approximately $8.4 million. All relief sought in the asbestos cases is monetary in nature. To date, approximately 40% of the Company's costs related to settlement and defense of asbestos litigation have been covered by its primary insurance. Effective February 14, 2006, the Company entered into a coverage-in-place agreement with its first level excess carriers regarding the coverage to be provided to the Company for asbestos-related claims when the primary insurance is exhausted. The coverage-in-place agreement makes asbestos defense costs and indemnity insurance coverage available to the Company that might otherwise be disputed by the carriers and provides a methodology for the administration of such expenses. Nonetheless, the Company believes it is likely there will be a period within the next 12 months, prior to the commencement of coverage under this agreement and following exhaustion of the Company's primary insurance coverage, during which the Company will be solely responsible for defense costs and indemnity payments, the duration of which would be subject to the scope of damage awards and settlements paid.

Based on the settlements made to date and the number of claims dismissed or withdrawn for lack of product identification, the Company believes that the relief sought (when specified) does not bear a reasonable relationship to its potential liability. Based upon the Company's experience to date, including the trend in annual defense and settlement costs incurred to date, and other available information (including the availability of excess insurance), the Company does not believe these cases will have a material adverse effect on its financial position and results of operations or cash flows.

Claims and Litigation

The Company is subject to other claims and litigation in the ordinary course of business, but does not believe that any such claim or litigation will have a material adverse effect on its financial position and results of operations or cash flows.

10. Segment Information

TriMas groups its operating segments into reportable segments that provide similar products and services. Each operating segment has discrete financial information evaluated regularly by the Company's chief operating decision maker in determining resource allocation and assessing performance. Within these reportable segments, there are no individual products or product families for which reported net sales accounted for more than 10% of the Company's consolidated net sales. See below for more information regarding the types of products and services provided within each reportable segment:

Packaging – Highly engineered closure and dispensing systems for a range of end markets, using steel and plastic within industrial and consumer packaging applications.

Aerospace – Permanent blind bolts, highly engineered specialty fasteners, temporary fasteners and other precision machined parts used in the commercial, business and military aerospace industries.

Energy – Metallic and non-metallic industrial sealant products and fasteners for the petroleum refining, petrochemical and other industrial markets.

Engineered Components – High-pressure and low-pressure steel cylinders for the transportation, storage and dispensing of compressed gases, and natural gas engines, compressors, gas production equipment and chemical pumps engineered for use at well sites for the oil and gas industry.

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Segment activity is as follows (dollars in thousands):

	Three months ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Net Sales				
Packaging	$ 88,740	$ 88,110	$ 169,700	$ 168,220
Aerospace	47,580	44,090	93,000	84,590
Energy	43,490	39,950	84,420	84,700
Engineered Components	33,560	31,170	66,080	68,690
Total	$ 213,370	$ 203,320	$ 413,200	$ 406,200
Operating Profit (Loss)				
Packaging	$ 21,540	$ 21,410	$ 38,390	$ 39,250
Aerospace	6,930	3,550	11,930	7,010
Energy	110	(3,090)	(3,790)	(6,700)
Engineered Components	4,710	3,860	9,690	9,440
Corporate expenses	(7,040)	(7,070)	(14,230)	(13,890)
Total	$ 26,250	$ 18,660	$ 41,990	$ 35,110

11. Equity Awards

The Company maintains the following long-term equity incentive plans: the TriMas Corporation 2017 Equity and Incentive Compensation Plan, the TriMas Corporation Director Retainer Share Election Program, the 2011 TriMas Corporation Omnibus Incentive Compensation Plan and the TriMas Corporation 2006 Long Term Equity Incentive Plan (collectively, the "Plans"). The 2006 Long Term Equity Incentive Plan expired in 2016, such that, while existing grants will remain outstanding until exercised, vested or cancelled, no new shares may be issued under the plan. See below for details of awards under the Plans by type.

Stock Options

The Company did not grant any stock option awards during the six months ended June 30, 2017. Information related to stock options at June 30, 2017 is as follows:

	Number of Stock Options	Weighted Average Option Price	Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Outstanding at January 1, 2017	206,854	$ 13.19		
Granted	—	—		
Exercised	—	—		
Cancelled	—	—		
Expired	—	—		
Outstanding at June 30, 2017	206,854	$ 13.19	7.1	$ 1,583,511

As of June 30, 2017, 56,854 stock options outstanding were exercisable under the Plans. As of June 30, 2017, there was approximately $0.5 million of unrecognized compensation cost related to stock options that is expected to be recorded over a weighted average period of 2.1 years.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

The Company recognized approximately $0.2 million and $0.3 million of stock-based compensation related to stock options during the three and six months ended June 30, 2017, respectively, and no stock-based compensation during the three and six months ended June 30, 2016. The stock-based compensation expense is included in selling, general and administrative expenses in the accompanying consolidated statement of income.

Restricted Shares

The Company awarded the following restricted shares during the six months ended June 30, 2017:

- granted 189,062 restricted shares of common stock to certain employees, which are subject only to a service condition and vest ratably over three years so long as the employee remains with the Company; and

- granted 30,429 restricted shares of common stock to its non-employee independent directors, which vest one year from date of grant so long as the director and/or Company does not terminate the director's service prior to the vesting date.

In addition, during the six months ended June 30, 2017, the Company issued 7,124 shares related to director fee deferrals. The Company allows for its non-employee independent directors to make an annual election to defer all or a portion of their directors fees and to receive the deferred amount in cash or equity. Certain of the Company's directors have elected to defer all or a portion of their directors fees and to receive the amount in Company common stock at a future date.

During the six months ended June 30, 2017, the Company awarded 111,761 performance-based shares of common stock to certain Company key employees which vest three years from the grant date so long as the employee remains with the Company. These awards are earned 50% based upon the Company's achievement of earnings per share compound annual growth rate ("EPS CAGR")metrics over a period beginning January 1, 2017 and ending December 31, 2019. The remaining 50% of the grants are earned based on the Company's total shareholder return ("TSR") relative to the TSR of the common stock of a pre-defined industry peer-group, measured over the performance period. TSR is calculated as the Company's average closing stock price for the 20-trading days at the end of the performance period plus Company dividends, divided by the Company's average closing stock price for the 20-trading days prior to the start of the performance period. The Company estimated the grant-date fair value and term of the awards subject to a market condition using a Monte Carlo simulation model, using the following weighted average assumptions: risk-free interest rate of 1.52% and annualized volatility of 35.6%. Depending on the performance achieved for these two metrics, the amount of shares earned can vary from 40% of the target award to a maximum of 200% of the target award for the EPS CAGR metric and 0% of the target award to a maximum of 200% of the target award for the TSR metric.

During 2015, the Company awarded performance-based shares of common stock to certain Company key employees which were earned based upon the Company's total TSR relative to the TSR of the common stock of a pre-defined industry peer-group and measured over a period beginning September 10, 2015 and ending on December 31, 2016. The Company attained 121.1% of the target on a weighted average basis, resulting in an increase of 12,718 shares during the six months ended June 30, 2017.

Information related to restricted shares at June 30, 2017 is as follows:

	Number of Unvested Restricted Shares	Weighted Average Grant Date Fair Value	Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Outstanding at January 1, 2017	645,660	$ 20.45		
Granted	351,094	24.99		
Vested	(236,198)	20.41		
Cancelled	(11,757)	20.94		
Outstanding at June 30, 2017	748,799	$ 22.59	1.3	$ 15,612,459

As of June 30, 2017, there was approximately $9.3 million of unrecognized compensation cost related to unvested restricted shares that is expected to be recorded over a weighted average period of 2.3 years.

The Company recognized approximately $1.7 million and $2.2 million of stock-based compensation expense related to restricted shares during the three months ended June 30, 2017 and 2016, respectively, and approximately $3.0 million and $4.1 million during the six months ended June 30, 2017 and 2016, respectively. The stock-based compensation expense is included in selling, general and administrative expenses in the accompanying consolidated statement of income.

12. Earnings per Share

Net income is divided by the weighted average number of common shares outstanding during the period to calculate basic earnings per share. Diluted earnings per share is calculated to give effect to stock options and restricted share awards. The following table summarizes the dilutive effect of restricted shares and options to purchase common stock for the three and six months ended June 30, 2017 and 2016:

	Three months ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Weighted average common shares—basic	45,717,697	45,429,851	45,644,096	45,354,421
Dilutive effect of restricted share awards	162,153	215,881	222,996	251,035
Dilutive effect of stock options	42,566	80,616	48,595	85,126
Weighted average common shares—diluted	45,922,416	45,726,348	45,915,687	45,690,582

13. Defined Benefit Plans

Net periodic pension benefit costs for the Company's defined benefit pension plans cover certain foreign employees, union hourly employees and salaried employees. The components of net periodic pension cost for the three and six months ended June 30, 2017 and 2016 are as follows (dollars in thousands):

	Pension Plans			
	Three months ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Service costs	$ 270	$ 240	$ 550	$ 490
Interest costs	320	390	640	790
Expected return on plan assets	(360)	(420)	(730)	(840)
Amortization of net loss	250	250	500	480
Net periodic benefit cost	$ 480	$ 460	$ 960	$ 920

The Company contributed approximately $0.8 million and $1.1 million to its defined benefit pension plans during the three and six months ended June 30, 2017, respectively. The Company expects to contribute approximately $3.1 million to its defined benefit pension plans for the full year 2017.

14. Other Comprehensive Income (Loss)

Changes in AOCI by component for the six months ended June 30, 2017 are summarized as follows, net of tax (dollars in thousands):

	Defined Benefit Plans	Derivative Instruments	Foreign Currency Translation	Total
Balance, December 31, 2016	$ (12,120)	$ (2,520)	$ (9,760)	$ (24,400)
Net unrealized gains (losses) arising during the period [(a)]	—	(230)	3,730	3,500
Less: Net realized losses reclassified to net income [(b)]	(330)	(210)	—	(540)
Net current-period other comprehensive income (loss)	330	(20)	3,730	4,040
Balance, June 30, 2017	$ (11,790)	$ (2,540)	$ (6,030)	$ (20,360)

[(a)] Derivative instruments, net of income tax of approximately $0.1 million. See Note 8, "*Derivative Instruments*," for further details.

[(b)] Defined benefit plans, net of income tax of approximately $0.1 million. See Note 13, "*Defined Benefit Plans*," for further details. Derivative instruments, net of income tax of approximately $0.1 million. See Note 8, "*Derivative Instruments*," for further details.

Changes in AOCI by component for the six months ended June 30, 2016 are summarized as follows, net of tax (dollars in thousands):

	Defined Benefit Plans	Derivative Instruments	Foreign Currency Translation	Total
Balance, December 31, 2015	$ (12,370)	$ (1,790)	$ 2,860	$ (11,300)
Net unrealized losses arising during the period [(a)]	—	(4,420)	(6,740)	(11,160)
Less: Net realized losses reclassified to net income [(b)]	(300)	(130)	—	(430)
Net current-period other comprehensive income (loss)	300	(4,290)	(6,740)	(10,730)
Balance, June 30, 2016	$ (12,070)	$ (6,080)	$ (3,880)	$ (22,030)

[(a)] Derivative instruments, net of income tax of approximately $2.7 million. See Note 8, "*Derivative Instruments*," for further details.

[(b)] Defined benefit plans, net of income tax of approximately $0.1 million. See Note 13, "*Defined Benefit Plans*," for further details. Derivative instruments, net of income tax of approximately $0.1 million. See Note 8, "*Derivative Instruments*," for further details.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition contains forward-looking statements regarding industry outlook and our expectations regarding the performance of our business. These forward-looking statements are subject to numerous risks and uncertainties, including, but not limited to, the risks and uncertainties described under the heading "Forward-Looking Statements," at the beginning of this report. Our actual results may differ materially from those contained in or implied by any forward-looking statements. You should read the following discussion together with the Company's reports on file with the Securities and Exchange Commission, including its Annual Report on Form 10-K for the year ended December 31, 2016.

Introduction

We are a global manufacturer and distributor of products for commercial, industrial and consumer markets. We are principally engaged in four reportable segments: Packaging, Aerospace, Energy and Engineered Components.

Key Factors and Risks Affecting Our Reported Results. Our businesses and results of operations depend upon general economic conditions and we serve some customers in cyclical industries that are highly competitive and are themselves significantly impacted by changes in economic conditions. There has been low overall economic growth, particularly in the United States, and global economic conditions have been relatively stable over the past couple of years.

The most significant external factor impacting us recently is the impact of lower oil prices, which began to decline in the fourth quarter of 2014, and since have remained at low levels. This decline has most directly impacted the Arrow Engine business, which serves the upstream oil and natural gas markets at the well site, within our Engineered Components reportable segment. Arrow Engine has experienced a more than 75% decline in net sales from pre-2015 levels as a result of the low oil-related activity and end-market demand. Net sales were slightly higher in the first half of 2017 compared with the first half of 2016. While oil prices have fluctuated in recent months, they remain at low levels. We expect net sales to remain at a low level compared with historical levels until the price of oil increases and remains higher over a sustained period where our customers decide to increase their activity levels and related well-site investments. In response to the reduced demand, Arrow Engine has lowered its cost structure over the past two years to align with current demand levels, and allowed it to attain approximately break-even operating profit during full year 2016 and the first half of 2017.

Lower oil prices have also impacted our Energy reportable segment. Historically, a portion of this business has served the upstream market, in addition to primarily serving petrochemical facilities and oil refineries in the downstream oil and gas markets. There have been minimal upstream sales in our Energy reportable segment over the past 18 to 24 months. In addition to the impact of lower oil prices, there has been a shift over the past few years in our Energy reportable segment from historical demand and activity, both in the United States and internationally. Petrochemical plants and refinery customers deferred shutdown activity, and we experienced decreases in engineering and construction ("E&C") customer activity. Our sales and margin levels over this period have declined significantly due to the mix of product sales and inefficiencies that resulted from the shift in activity levels. The current lower oil prices have continued to place further pressure on the top-line and predictability of customer order patterns. Given these factors, we have been realigning the business and its fixed cost structure with the current business environment, aggressively closing and consolidating facilities and seeking alternate lower-cost sources for input costs, including exits of our Wolverhampton, United Kingdom and Reynosa, Mexico facilities announced during the first quarter of 2017. We are now realizing the benefit of the cost savings and operational efficiencies associated with leveraging the new lower fixed cost structure and other initiatives, as evidenced by our improvement in operating profit. We will continue to evaluate the cost structure and physical footprint of the business.

The other significant external factor impacting our financial results over the past two years is supply chain disruption within our Aerospace reportable segment. In 2015 and 2016, our two largest Aerospace distribution customers reduced their investment in on-hand inventory levels of fastener products, and their purchases of our products. This trend has moderated in the first half of 2017, as year-over-year sales are higher to these customers. While this has impacted our net sales, it also had a significant impact on prior year margin levels, as certain of these products historically commanded higher profit margins. In addition to the impact of distribution customer sales, in the first half of 2016, we also experienced lower sales, and significantly lower profit margins, as a result of production and scheduling challenges in one of our Aerospace fastener facilities, significantly lower fixed cost absorption and inefficiencies as we adjusted to the changing demand levels, and integration costs associated with our machined components facility acquisition. We established plans to address these matters, and have been executing against those plans, as evidenced by improved operating profit margins in the first half of 2017 compared to the first half of 2016, as well as on a sequential basis from the first quarter of 2017 to the second quarter of 2017.

Each year, our businesses target cost savings from continuous improvement and productivity initiatives in an effort to lower input costs or improve throughput and yield rates with a goal of at least covering inflationary and market cost increases. In addition, we continuously review our costs to ensure alignment between current demand and cost structure.

Critical factors affecting our ability to succeed include: our ability to create organic growth through product development, cross selling and extending product-line offerings, and our ability to quickly and cost-effectively introduce new products; our ability to acquire and integrate companies or products that supplement existing product lines, add new distribution channels, expand our geographic coverage or enable better absorption of overhead costs; our ability to manage our cost structure more efficiently via supply base management, internal sourcing and/or purchasing of materials, selective outsourcing and/or purchasing of support functions, working capital management, and greater leverage of our administrative functions. If we are unable to do any of the foregoing successfully, our financial condition and results of operations could be materially and adversely impacted.

Our business does not experience significant seasonal fluctuation, other than our fourth quarter, which has tended to be the lowest net sales quarter of the year given holiday shutdowns in certain customers or other customers deferring capital spending to the new year. We do not consider sales order backlog to be a material factor in our business. A growing portion of our sales is derived from international sources, which exposes us to certain risks, including currency risks.

We are sensitive to price movements in our raw materials supply base. Our largest material purchases are for steel, aluminum, polyethylene and other resins and utility-related inputs. Historically, we have experienced volatility in costs of steel and resin and have worked with our suppliers to manage costs and disruptions in supply. We also utilize pricing programs to pass increased steel, aluminum and resin costs to customers. Although we may experience delays in our ability to implement price increases, we have been generally able to recover such increased costs. We may experience disruptions in supply in the future and may not be able to pass along higher costs associated with such disruptions to our customers in the form of price increases.

Certain of our businesses are sensitive to oil price movements. As noted earlier, our Arrow Engine business is most directly impacted by significant volatility in oil prices. Arrow Engine's pumpjack and other engine sales and related parts, which comprise a significant portion of the business, are impacted by oil and gas drilling levels, rig counts, well completion activities and commodity pricing. In addition, a portion of our Energy reportable segment serves upstream customers at oil well sites that have been impacted by lower oil prices. The majority of this segment provides parts for refineries and chemical plants, which may or may not decide to incur capital expenditures for preventive maintenance or capacity expansion activities, both of which require use of our gaskets and bolts, in times of fluctuating oil prices. Our Packaging reportable segment may be impacted by oil prices, as it is a significant driver of resin pricing, although we generally are able to maintain profit levels when oil prices change due to escalator/de-escalator clauses in contracts with many of our customers.

Segment Information and Supplemental Analysis

The following table summarizes financial information for our reportable segments for the three months ended June 30, 2017 and 2016 (dollars in thousands):

	Three months ended June 30,			
	2017	As a Percentage of Net Sales	2016	As a Percentage of Net Sales
Net Sales				
Packaging	$ 88,740	41.6%	$ 88,110	43.3 %
Aerospace	47,580	22.3%	44,090	21.7 %
Energy	43,490	20.4%	39,950	19.7 %
Engineered Components	33,560	15.7%	31,170	15.3 %
Total	$ 213,370	100.0%	$ 203,320	100.0 %
Gross Profit				
Packaging	$ 32,230	36.3%	$ 31,250	35.5 %
Aerospace	12,350	26.0%	10,020	22.7 %
Energy	7,990	18.4%	9,400	23.5 %
Engineered Components	6,840	20.4%	6,410	20.6 %
Total	$ 59,410	27.8%	$ 57,080	28.1 %
Selling, General and Administrative Expenses				
Packaging	$ 10,690	12.0%	$ 9,840	11.2 %
Aerospace	5,420	11.4%	6,470	14.7 %
Energy	7,880	18.1%	12,490	31.3 %
Engineered Components	2,130	6.3%	2,550	8.2 %
Corporate expenses	7,040	N/A	7,070	N/A
Total	$ 33,160	15.5%	$ 38,420	18.9 %
Operating Profit (Loss)				
Packaging	$ 21,540	24.3%	$ 21,410	24.3 %
Aerospace	6,930	14.6%	3,550	8.1 %
Energy	110	0.3%	(3,090)	(7.7)%
Engineered Components	4,710	14.0%	3,860	12.4 %
Corporate expenses	(7,040)	N/A	(7,070)	N/A
Total	$ 26,250	12.3%	$ 18,660	9.2 %
Depreciation and Amortization				
Packaging	$ 5,600	6.3%	$ 5,310	6.0 %
Aerospace	3,630	7.6%	3,510	8.0 %
Energy	2,010	4.6%	1,170	2.9 %
Engineered Components	940	2.8%	1,060	3.4 %
Corporate expenses	70	N/A	80	N/A
Total	$ 12,250	5.7%	$ 11,130	5.5 %

The following table summarizes financial information for our reportable segments for the six months ended June 30, 2017 and 2016 (dollars in thousands):

	Six months ended June 30,			
	2017	As a Percentage of Net Sales	2016	As a Percentage of Net Sales
Net Sales				
Packaging	$ 169,700	41.1 %	$ 168,220	41.4 %
Aerospace	93,000	22.5 %	84,590	20.8 %
Energy	84,420	20.4 %	84,700	20.9 %
Engineered Components	66,080	16.0 %	68,690	16.9 %
Total	$ 413,200	100.0 %	$ 406,200	100.0 %
Gross Profit				
Packaging	$ 57,890	34.1 %	$ 60,120	35.7 %
Aerospace	23,090	24.8 %	19,650	23.2 %
Energy	16,510	19.6 %	18,800	22.2 %
Engineered Components	13,680	20.7 %	14,430	21.0 %
Total	$ 111,170	26.9 %	$ 113,000	27.8 %
Selling, General and Administrative Expenses				
Packaging	$ 19,500	11.5 %	$ 20,870	12.4 %
Aerospace	11,160	12.0 %	12,640	14.9 %
Energy	20,300	24.0 %	25,500	30.1 %
Engineered Components	3,990	6.0 %	4,990	7.3 %
Corporate expenses	14,230	N/A	13,890	N/A
Total	$ 69,180	16.7 %	$ 77,890	19.2 %
Operating Profit (Loss)				
Packaging	$ 38,390	22.6 %	$ 39,250	23.3 %
Aerospace	11,930	12.8 %	7,010	8.3 %
Energy	(3,790)	(4.5)%	(6,700)	(7.9)%
Engineered Components	9,690	14.7 %	9,440	13.7 %
Corporate expenses	(14,230)	N/A	(13,890)	N/A
Total	$ 41,990	10.2 %	$ 35,110	8.6 %
Depreciation and Amortization				
Packaging	$ 10,870	6.4 %	$ 10,610	6.3 %
Aerospace	7,230	7.8 %	6,960	8.2 %
Energy	2,950	3.5 %	2,350	2.8 %
Engineered Components	1,860	2.8 %	2,080	3.0 %
Corporate expenses	130	N/A	170	N/A
Total	$ 23,040	5.6 %	$ 22,170	5.5 %

Results of Operations

The principal factors impacting us during the three months ended June 30, 2017, compared with the three months ended June 30, 2016, were:

- the impact of improved throughput and productivity in our Aerospace reportable segment, enabling this segment to achieve higher sales levels in the three months ended June 30, 2017;
- the costs associated with exiting the facility in Reynosa, Mexico within our Energy reportable segment, under which we incurred approximately $2.7 million of charges in the three months ended June 30, 2017;
- the impact of continued low oil prices, primarily impacting sales and profit levels in our Engineered Components reportable segment; and
- the impact of a stronger U.S. dollar, primarily in our Packaging reportable segment.

Three Months Ended June 30, 2017 Compared with Three Months Ended June 30, 2016

Overall, net sales increased approximately $10.1 million, or 4.9%, to $213.4 million for the three months ended June 30, 2017, as compared with $203.3 million in the three months ended June 30, 2016. Our Energy and Engineered Components reportable segments had a combined sales increase of approximately $6.0 million, primarily as a result of increased customer demand and some market stabilization despite continued low oil prices. Sales within our Aerospace reportable segment increased approximately $3.5 million, primarily due to increases in sales to distribution customers. In addition, excluding the effects of foreign currency exchange, sales within our Packaging reportable segment increased by approximately $2.1 million primarily due to increased demand for our our health, beauty and home care products in Europe and Asia, as well as increased demand for our food and beverage products. These increases were partially offset by approximately $1.6 million of net unfavorable currency exchange, primarily in our Packaging reportable segment, as our reported results in U.S. dollars were negatively impacted as a result of the stronger U.S. dollar relative to foreign currencies.

Gross profit margin (gross profit as a percentage of sales) approximated 27.8% and 28.1% for the three months ended June 30, 2017 and 2016, respectively. Gross profit margin decreased primarily due to costs associated with exiting our facility in Reynosa, Mexico within our Energy reportable segment, partially offset by increased gross profit margin within our Aerospace reportable segment as a result of recent initiatives to improve production scheduling and manufacturing efficiencies. In addition, gross profit was impacted by approximately $0.9 million of unfavorable currency exchange, as our reported results in U.S. dollars were negatively impacted as a result of the stronger U.S. dollar relative to foreign currencies.

Operating profit margin (operating profit as a percentage of sales) approximated 12.3% and 9.2% for the three months ended June 30, 2017 and 2016, respectively. Operating profit increased approximately $7.6 million, or 40.7%, to $26.3 million for the three months ended June 30, 2017, from $18.7 million for the three months ended June 30, 2016. Operating profit and margin increased due to higher sales levels across all of our reportable segments, our initiatives to improve production scheduling and manufacturing efficiencies, primarily in our Aerospace reportable segment, and our footprint realignment activities within our Energy reportable segment.

Interest expense increased approximately $0.1 million, to $3.4 million for the three months ended June 30, 2017, as compared to $3.3 million for the three months ended June 30, 2016. Our weighted average variable rate borrowings decreased to approximately $394.0 million in the three months ended June 30, 2017, from approximately $463.6 million in the three months ended June 30, 2016. The effective weighted average interest rate on our outstanding variable rate borrowings, including our credit agreement ("Credit Agreement") and accounts receivable facilities, increased to approximately 2.5% for three months ended June 30, 2017, from approximately 2.0% for the three months ended June 30, 2016.

Other income, net was approximately $0.1 million for the three months ended June 30, 2017 and 2016, respectively, primarily due to gains on transactions denominated in foreign currencies partially offset by costs attributed to a reduction of certain indemnification assets related to uncertain tax liabilities.

The effective income tax rates for the three months ended June 30, 2017 and 2016 were 35.0% and 32.3%, respectively. The increase in the rate was primarily a result of losses at certain foreign subsidiaries where no tax benefit could be recorded, the year-over-year impact of recognizing certain tax benefits due to a lapse of a statutory limitation in the second quarter of 2016, and discrete tax expense recognized in the three months ended June 30, 2017.

Net income increased by approximately $4.4 million, to $14.9 million for the three months ended June 30, 2017, compared to $10.5 million for the three months ended June 30, 2016. The increase was primarily the result of a $7.6 million increase in operating profit, partially offset by a $3.0 million increase in income tax expense and a $0.1 million increase in interest expense.

See below for a discussion of operating results by segment.

Packaging. Net sales increased approximately $0.6 million, or 0.7%, to $88.7 million in the three months ended June 30, 2017, as compared to $88.1 million in the three months ended June 30, 2016. Sales of our health, beauty and home care products increased approximately $1.3 million primarily due to higher demand in Europe and Asia. Additionally, sales of our food and beverage products increased approximately $0.7 million and sales of our industrial closures increased approximately $0.1 million. These increases were partially offset by approximately $1.5 million of unfavorable currency exchange, as our reported results in U.S. dollars were negatively impacted as a result of the stronger U.S. dollar relative to foreign currencies.

Packaging's gross profit increased approximately $1.0 million to $32.2 million, or 36.3% of sales, in the three months ended June 30, 2017, as compared to $31.3 million, or 35.5% of sales, in the three months ended June 30, 2016. Increases in gross profit due to the higher sales levels and lower material costs were partially offset by approximately $0.9 million of unfavorable currency exchange, as our reported results in U.S. dollars were negatively impacted as a result of the stronger U.S. dollar relative to foreign currencies.

Packaging's selling, general and administrative expenses increased approximately $0.9 million to $10.7 million, or 12.0% of sales, in the three months ended June 30, 2017, as compared to $9.8 million, or 11.2% of sales, in the three months ended June 30, 2016, primarily due to an approximate $1.1 million charge to reserve an outstanding accounts receivable amount for a European customer who filed for bankruptcy.

Packaging's operating profit increased approximately $0.1 million to $21.5 million, or 24.3% of sales, in the three months ended June 30, 2017, as compared to $21.4 million, or 24.3% of sales, in the three months ended June 30, 2016, as the profit earned on higher sales levels and lower material costs was offset by a bad debt provision recorded in the second quarter of 2017 and approximately $0.6 million of unfavorable currency exchange.

Aerospace. Net sales for the three months ended June 30, 2017 increased approximately $3.5 million, or 7.9%, to $47.6 million, as compared to $44.1 million in the three months ended June 30, 2016. This segment continues to improve its production scheduling and manufacturing efficiencies, which enabled it to increase daily production rates and ship higher levels of net sales in 2017 as compared to 2016. Sales to our distribution customers increased approximately $3.4 million, while sales to OE customers increased approximately $0.1 million.

Gross profit within Aerospace increased approximately $2.4 million to $12.4 million, or 26.0% of sales, in the three months ended June 30, 2017, from $10.0 million, or 22.7% of sales, in the three months ended June 30, 2016, primarily as a result of higher sales levels. In addition, in the second quarter of 2016, we incurred approximately $1.0 million of additional costs to improve our manufacturing throughput, which did not recur in the second quarter of 2017.

Selling, general and administrative expenses decreased approximately $1.1 million to $5.4 million, or 11.4% of sales, in the three months ended June 30, 2017, as compared to $6.5 million, or 14.7% of sales, in the three months ended June 30, 2016, primarily due to approximately $0.6 million of lower estimated uncollectable accounts receivable expenses as a result of collection of previously reserved customer balances, as well as decreased spending in certain administrative support costs.

Operating profit within Aerospace increased approximately $3.3 million to $6.9 million, or 14.6% of sales, in the three months ended June 30, 2017, as compared to $3.6 million, or 8.1% of sales, in the three months ended June 30, 2016. Operating profit improved primarily as a result of higher sales levels and continued improvement in production scheduling and manufacturing efficiencies, as well as lower selling, general and administrative expenses.

Energy. Net sales for the three months ended June 30, 2017 increased approximately $3.5 million, or 8.9%, to $43.5 million, as compared to $40.0 million in the three months ended June 30, 2016. Sales increased by approximately $5.2 million in North America, primarily due to increased customer demand and increasing our share of current year turnaround activity. The increase was partially offset by a decrease in net sales of approximately $1.7 million in Europe, primarily due to exiting our facility in Wolverhampton, United Kingdom.

Gross profit within Energy decreased approximately $1.4 million to $8.0 million, or 18.4% of sales, in the three months ended June 30, 2017, as compared to $9.4 million, or 23.5% of sales, in the three months ended June 30, 2016. During the second quarter of 2017, we incurred approximately $2.7 million of costs associated with exiting our facility in Reynosa, Mexico, which included approximately $1.5 million for estimated future unrecoverable lease obligations, net of estimated sublease recoveries, for the lease that expires in 2025, and approximately $1.2 million of charges related to accelerated depreciation expense as a result of shortening the expected lives on certain machinery, equipment and leasehold improvement assets that the Company no longer used following the facility closure. The decrease was partially offset by an increase in gross profit in North America due to higher sales levels, savings achieved from ongoing footprint realignment initiatives and improvements in manufacturing efficiencies within our Houston, Texas manufacturing facility.

Selling, general and administrative expenses within Energy decreased approximately $4.6 million to $7.9 million, or 18.1% of sales, in the three months ended June 30, 2017, as compared to $12.5 million, or 31.3% of sales, in the three months ended June 30, 2016. Selling, general and administrative expenses decreased by approximately $3.0 million as a result of lower costs related to previously closed facilities in the second quarter of 2017 as compared with the second quarter of 2016, and by approximately $0.3 million as a result of lower third-party professional fees. The remaining $1.3 million decrease was primarily due to lower ongoing costs associated with the Company's current footprint following completion of significant realignment activities.

Operating profit within Energy increased approximately $3.2 million to approximately $0.1 million of profit, or 0.3% of sales, in the three months ended June 30, 2017, as compared to a loss of $3.1 million, or 7.7% of sales, in the three months ended June 30, 2016, as a result of lower selling, general and administrative expenses related to prior footprint realignment activities, higher sales levels and improved manufacturing efficiencies, which more than offset the costs incurred associated with the closure of our Reynosa Mexico facility in the second quarter of 2017.

Engineered Components. Net sales for the three months ended June 30, 2017 increased approximately $2.4 million, or 7.7%, to $33.6 million, as compared to $31.2 million in the three months ended June 30, 2016. Sales of our engines and compression-related products increased by approximately $1.7 million, as we experienced improved demand levels compared with prior year consistent with drilling activity in the United States and Canada and continued stabilization of oil prices. Sales of our industrial cylinders increased by approximately $0.7 million, primarily due to increased demand for large high pressure gas cylinders in industrial applications.

Gross profit within Engineered Components increased approximately $0.4 million to $6.8 million, or 20.4% of sales, in the three months ended June 30, 2017, from $6.4 million, or 20.6% of sales, in the three months ended June 30, 2016. Gross profit and related margin increased primarily as a result of higher sales levels and fixed cost leverage related to sales of oil-field engines and compression-related products.

Selling, general and administrative expenses decreased approximately $0.5 million to $2.1 million, or 6.3% of sales, in the three months ended June 30, 2017, as compared to $2.6 million, or 8.2% of sales, in the three months ended June 30, 2016 primarily due to lowering our ongoing operating costs consistent with lower than historical demand levels.

Operating profit within Engineered Components increased approximately $0.8 million to $4.7 million, or 14.0% of sales, in the three months ended June 30, 2017, as compared to $3.9 million, or 12.4% of sales, in the three months ended June 30, 2016. Operating profit increased primarily due to higher sales levels, while operating profit margin as a percentage of sales improved as a result of cost reduction actions taken to better align our cost structure with demand levels.

Corporate Expenses. Corporate expenses consist of the following (dollars in millions):

	Three months ended June 30,	
	2017	**2016**
Corporate operating expenses	$ 2.3	$ 2.5
Employee costs and related benefits	4.7	4.6
Corporate expenses	$ 7.0	$ 7.1

Corporate expenses decreased approximately $0.1 million to $7.0 million for the three months ended June 30, 2017, from $7.1 million for the three months ended June 30, 2016. Corporate operating expenses decreased approximately $0.2 million, partially offset by an increase in employee costs and related benefits of approximately $0.1 million, primarily due to an increase in expense related to the timing and estimated attainment of our incentive compensation plans.

Six Months Ended June 30, 2017 Compared with Six Months Ended June 30, 2016

Overall, net sales increased approximately $7.0 million, or 1.7%, to $413.2 million for the six months ended June 30, 2017, as compared with $406.2 million in the six months ended June 30, 2016. Sales within our Aerospace reportable segment increased approximately $8.4 million, with increases in sales to distribution and OE customers, as a result of improved manufacturing throughput. In addition, excluding the effects of foreign currency exchange, sales within our Packaging reportable segment increased by approximately $4.8 million primarily due to increased demand for our industrial closures in North America and Europe and for our health, beauty and home care products in Europe and Asia. These increases were partially offset by the year-over-year decrease of approximately $2.6 million in our Engineered Components reportable segment, primarily as a result of industrial cylinder customers' consolidations. Our sales were also impacted by approximately $3.5 million of net unfavorable currency exchange, primarily in our Packaging reportable segment, as our reported results in U.S. dollars were negatively impacted as a result of the stronger U.S. dollar relative to foreign currencies.

Gross profit margin (gross profit as a percentage of sales) approximated 26.9% and 27.8% for the six months ended June 30, 2017 and 2016, respectively. Gross profit margin decreased primarily due to costs associated with the consolidation of manufacturing facilities in India and to finalize the move to a new Mexico facility, both within our Packaging reportable segment, as well as costs associated with the closure of the Reynosa, Mexico facility within our Energy reportable segment. In addition, gross profit decreased compared to the prior year period by approximately $1.7 million as a result of unfavorable currency exchange, as our reported results in U.S. dollars were negatively impacted as a result of the stronger U.S. dollar relative to foreign currencies. These decreases were partially offset by improved manufacturing efficiency levels and reduced manufacturing spend, primarily within our Aerospace reportable segment.

Operating profit margin (operating profit as a percentage of sales) approximated 10.2% and 8.6% for the six months ended June 30, 2017 and 2016, respectively. Operating profit increased approximately $6.9 million, or 19.6%, to $42.0 million for the six months ended June 30, 2017, compared to $35.1 million for the six months ended June 30, 2016. Operating profit and margin increased as a result of higher sales levels in our Aerospace and Packaging reportable segments, our productivity initiatives to improve scheduling and throughput, particularly in our Aerospace reportable segment, and our footprint realignment activities within our Energy reportable segment. These factors were partially offset by the costs incurred in the first half of 2017 associated with footprint consolidation and relocation projects within our Packaging and Energy reportable segments.

Interest expense increased approximately $0.2 million, to $7.0 million, for the six months ended June 30, 2017, as compared to $6.8 million for the six months ended June 30, 2016. The increase in interest expense was primarily due to an increase in our interest rates, which more than offset lower average borrowings. Our weighted average variable rate borrowings decreased to approximately $404.0 million in the six months ended June 30, 2017, from approximately $469.2 million in the six months ended June 30, 2016. However, the effective weighted average interest rate on our outstanding variable rate borrowings, including our Credit Agreement and accounts receivable facilities, increased to approximately 2.6% for the six months ended June 30, 2017, from approximately 2.0% for the six months ended June 30, 2016.

Other income (expense), net increased approximately $0.7 million, to $0.6 million of other expense, net for the six months ended June 30, 2017, from $0.1 million of other income, net for the six months ended June 30, 2016, primarily due to an increase in losses on transactions denominated in foreign currencies.

The effective income tax rates for the six months ended June 30, 2017 and 2016 were 36.6% and 33.9%, respectively. The increase in the rate was primarily a result of losses at certain foreign subsidiaries where no tax benefit could be recorded, the year-over-year impact of recognizing certain tax benefits due to a lapse of a statutory limitation in the first six months of 2016, and a change in the Company's indefinite reinvestment assertion in undistributed foreign earnings in two of its foreign subsidiaries. These increases were partially offset by a discrete tax benefit related to stock compensation recognized in the six months ended June 30, 2017.

Net income from continuing operations increased by approximately $3.0 million, to $21.8 million for the six months ended June 30, 2017, compared to $18.8 million for the six months ended June 30, 2016. The increase was primarily the result of a $6.9 million increase in operating profit, partially offset by a $3.0 million increase in income tax expense, a $0.7 million increase in other expense, net and a $0.2 million increase in interest expense.

See below for a discussion of operating results by segment.

Packaging. Net sales increased approximately $1.5 million, or 0.9%, to $169.7 million in the six months ended June 30, 2017, as compared to $168.2 million in the six months ended June 30, 2016. Sales of our health, beauty and home care products increased approximately $2.5 million primarily due to higher demand in Europe and Asia. Sales of our industrial closures increased approximately $1.5 million due to higher demand in North America and Europe. Additionally, sales of our food and beverage products increased approximately $0.8 million. These increases were partially offset by approximately $3.3 million of unfavorable currency exchange, as our reported results in U.S. dollars were negatively impacted as a result of the stronger U.S. dollar relative to foreign currencies.

Packaging's gross profit decreased approximately $2.2 million to $57.9 million, or 34.1% of sales, in the six months ended June 30, 2017, as compared to $60.1 million, or 35.7% of sales, in the six months ended June 30, 2016. Although sales levels increased, gross profit decreased due to approximately $1.4 million of costs to consolidate manufacturing facilities in India and to finalize the move to a new facility in Mexico in the first quarter of 2017. In addition, gross profit declined due to approximately $1.7 million of unfavorable currency exchange, as our reported results in U.S. dollars were negatively impacted as a result of the stronger U.S. dollar relative to foreign currencies.

Packaging's selling, general and administrative expenses decreased approximately $1.4 million to $19.5 million, or 11.5% of sales, in the six months ended June 30, 2017, as compared to $20.9 million, or 12.4% of sales, in the six months ended June 30, 2016. The decrease was primarily due to higher costs incurred in the first quarter of 2016 in connection with re-organizing our go-to-market strategy based on global product categories, as well as generally lower go-forward spending levels resulting from this reorganization. The decrease was partially offset by an approximate $1.1 million charge recorded in the second quarter of 2017 to reserve an outstanding accounts receivable amount for a European customer who filed for bankruptcy.

Packaging's operating profit decreased approximately $0.9 million to $38.4 million, or 22.6% of sales, in the six months ended June 30, 2017, as compared to $39.3 million, or 23.3% of sales, in the six months ended June 30, 2016. Although sales levels increased and selling, general and administrative expenses decreased, operating profit and related margin declined as a result of costs incurred to consolidate facilities in India and finalize the move to a new manufacturing facility in Mexico, as well as an approximate $1.1 million charge recorded in the second quarter of 2017 to reserve an outstanding accounts receivable amount and approximately $1.2 million of unfavorable currency exchange.

Aerospace. Net sales for the six months ended June 30, 2017 increased approximately $8.4 million, or 9.9%, to $93.0 million, as compared to $84.6 million in the six months ended June 30, 2016. This segment continues to improve its production scheduling and manufacturing efficiencies, which enabled it to increase daily production rates and ship higher levels of net sales in 2017 as compared to 2016. Sales to our distribution customers increased approximately $6.6 million, as the order patterns continued to stabilize and increase in 2017 as compared to the lower and more volatile levels throughout 2016. Sales to our OE customers increased approximately $1.6 million.

Gross profit within Aerospace increased approximately $3.4 million to $23.1 million, or 24.8% of sales, in the six months ended June 30, 2017, from $19.7 million, or 23.2% of sales, in the six months ended June 30, 2016, primarily as a result of higher sales levels. In addition, in the first half of 2016, we incurred additional costs and experienced lower fixed cost absorption associated with production scheduling and manufacturing inefficiencies, primarily in our Commerce, CA facility. We have improved the efficiency levels during the first half of 2017 and reduced manufacturing spend levels despite higher demand level in this facility. These improvements were partially offset by higher costs due to manufacturing costs and inefficiencies at our standard fastener facility in Ottawa, KS.

Selling, general and administrative expenses decreased approximately $1.5 million to $11.2 million, or 12.0% of sales, in the six months ended June 30, 2017, as compared to $12.6 million, or 14.9% of sales, in the six months ended June 30, 2016, primarily due to approximately $0.8 million reduced expense to reserve for past due accounts receivable as a result of collection of previously reserved customer balances, approximately $0.3 million of decreases in professional fees and decreased spending in certain administrative support costs.

Operating profit within Aerospace increased approximately $4.9 million to $11.9 million, or 12.8% of sales, in the six months ended June 30, 2017, as compared to $7.0 million, or 8.3% of sales, in the six months ended June 30, 2016. Operating profit improved primarily as a result of higher sales levels, continued improvement in production scheduling and manufacturing efficiencies and lower selling, general and administrative expenses.

Energy. Net sales for the six months ended June 30, 2017 decreased approximately $0.3 million, or 0.3%, to $84.4 million, as compared to $84.7 million in the six months ended June 30, 2016. Sales increased approximately $2.2 million in North America and $0.5 million in Asia primarily due to increased customer demand and increasing our share of turnaround activity. These increases were more than offset by a decrease in net sales of approximately $3.0 million in Europe, primarily due to exiting our facility in Wolverhampton, United Kingdom.

Gross profit within Energy decreased approximately $2.3 million to $16.5 million, or 19.6% of sales, in the six months ended June 30, 2017, as compared to $18.8 million, or 22.2% of sales, in the six months ended June 30, 2016. During the second quarter of 2017, we incurred approximately $2.7 million of costs associated with exiting our facility in Reynosa, Mexico, which included approximately $1.5 million for estimated net future unrecoverable lease obligations for the lease that expires in 2025, and approximately $1.2 million of charges related to accelerated depreciation expense on certain machinery, equipment and leasehold improvement assets that the Company no longer used following the facility closure. The decrease was partially offset by an increase in gross profit in North America due to higher sales levels, savings achieved from ongoing footprint realignment initiatives and improvements in manufacturing efficiencies within our Houston, Texas manufacturing facility.

Selling, general and administrative expenses within Energy decreased approximately $5.2 million to $20.3 million, or 24.0% of sales, in the six months ended June 30, 2017, as compared to $25.5 million, or 30.1% of sales, in the six months ended June 30, 2016. Selling, general and administrative expenses decreased by approximately $2.0 million as a result of lower costs related to previously closed facilities in the first half of 2017 as compared to the first half of 2016, approximately $1.0 million as a result of an increase in reserves for past due accounts receivable in the first half of 2016 that did not repeat in the first half of 2017, and by approximately $0.8 million as a result of lower third-party professional fees. The remaining $1.4 million decrease was primarily due to lower ongoing costs associated with the Company's current operating footprint following completion of significant realignment activities.

Overall, operating loss within Energy decreased approximately $2.9 million to a $3.8 million loss, or 4.5% of sales, in the six months ended June 30, 2017, as compared to a $6.7 million loss, or 7.9% of sales, in the six months ended June 30, 2016, as a result of lower selling, general and administrative expenses related to prior footprint realignment activities, improved manufacturing efficiencies and lower bad debt expense, which more than offset the costs incurred associated with the closure of our Reynosa, Mexico facility.

Engineered Components. Net sales for the six months ended June 30, 2017 decreased approximately $2.6 million, or 3.8%, to $66.1 million, as compared to $68.7 million in the six months ended June 30, 2016. Sales of our industrial cylinders decreased by approximately $3.7 million, primarily due to the impact of certain of our large customers consolidating operations and lowering their current sales demand. Sales of our oil-field engines and compression-related products increased by approximately $1.1 million primarily due to increases in drilling activity in the United States and Canada and the continued stabilization of oil prices.

Gross profit within Engineered Components decreased approximately $0.7 million to $13.7 million, or 20.7% of sales, in the six months ended June 30, 2017, from $14.4 million, or 21.0% of sales, in the six months ended June 30, 2016. Gross profit from sales of our industrial cylinders decreased approximately $1.5 million as a result of lower sales in the U.S. industrial packaged gas market. Gross profit from sales of our engines and compression-related products increased approximately $0.8 million due to higher sales levels and leveraging our lower fixed cost structure.

Selling, general and administrative expenses decreased approximately $1.0 million to $4.0 million, or 6.0% of sales, in the six months ended June 30, 2017, as compared to $5.0 million, or 7.3% of sales, in the six months ended June 30, 2016 primarily due to lowering our ongoing operating costs consistent with lower than historical demand levels.

Operating profit within Engineered Components increased approximately $0.3 million to $9.7 million, or 14.7% of sales, in the six months ended June 30, 2017, as compared to operating profit of $9.4 million, or 13.7% of sales, in the six months ended June 30, 2016. Operating profit and related margin improved primarily due to increased sales levels of our oil-field engines and compression-related products and better leveraging of our lower fixed cost structure.

Corporate Expenses. Corporate expenses consist of the following (dollars in millions):

	Six months ended June 30,	
	2017	**2016**
Corporate operating expenses	$ 4.7	$ 4.4
Employee costs and related benefits	9.5	9.5
Corporate expenses	$ 14.2	$ 13.9

Corporate expenses increased approximately $0.3 million to $14.2 million for the six months ended June 30, 2017, from $13.9 million for the six months ended June 30, 2016 primarily due to a favorable property tax assessment settlement of approximately $0.4 million for a former business unit during 2016 that did not repeat in 2017.

Liquidity and Capital Resources

Cash Flows

Cash flows provided by operating activities were approximately $49.6 million for the six months ended June 30, 2017, as compared to approximately $32.9 million for the six months ended June 30, 2016. Significant changes in cash flows provided by operating activities and the reasons for such changes were as follows:

- For the six months ended June 30, 2017, the Company generated approximately $53.9 million of cash, based on the reported net income of approximately $21.8 million and after considering the effects of non-cash items related to losses on dispositions of assets, depreciation, amortization, changes in deferred income taxes, stock-based compensation and other operating activities. For the six months ended June 30, 2016, the Company generated approximately $46.5 million in cash flows based on the reported net income of approximately $18.8 million and after considering the effects of similar non-cash items.

- Increases in accounts receivable resulted in a use of cash of approximately $11.5 million and $3.7 million for the six months ended June 30, 2017 and 2016, respectively. The increased use of cash for each of the six month periods is due primarily to the timing of sales and collection of cash within the periods. Days sales outstanding of receivables decreased by three days as of June 30, 2017 as compared to June 30, 2016, primarily as a result of our increased focus on collections activity.

- For the six months ended June 30, 2017, we reduced our investment in inventory by approximately $2.9 million, primarily as a result of our footprint consolidation and relocation projects and our increased focus on working capital management, as we did not need to make significant investments in additional inventory despite the increase in sales. For the six months ended June 30, 2016, we reduced our investment in inventory by approximately $1.1 million.

- Decreases in prepaid expenses and other assets resulted in a cash source of approximately $6.3 million and $10.7 million for the six months ended June 30, 2017 and 2016, respectively, primarily as a result of the timing of payments made for income taxes and certain operating expenses.

- Decreases in accounts payable and accrued liabilities resulted in a cash use of approximately $1.9 million and $21.7 million for the six months ended June 30, 2017 and 2016, respectively. The change in cash used for accounts payable and accrued liabilities is primarily a result of higher levels of purchases in 2017, as well as the timing of payments made to suppliers and the mix of vendors and related terms. There was no significant change in our days accounts payable on hand as of June 30, 2017 compared to June 30, 2016.

Net cash used for investing activities for the six months ended June 30, 2017 and 2016 was approximately $15.1 million and $12.8 million, respectively. During the first six months of 2017, we incurred approximately $16.9 million in capital expenditures, as we have continued our investment in growth, capacity and productivity-related capital projects. Cash received from the disposition of property and equipment was approximately $1.8 million. During the first six months of 2016, we incurred approximately $13.0 million in capital expenditures and received cash from the disposition of property and equipment of approximately $0.1 million.

Net cash used for financing activities for the six months ended June 30, 2017 and 2016 was approximately $32.5 million and $15.9 million, respectively. During the first six months of 2017, we made net repayments of approximately $24.9 million on our revolving credit and accounts receivable facilities, and repaid approximately $6.9 million on our term loan. We also used a net cash amount of approximately $0.5 million related to our stock compensation arrangements. During the first six months of 2016, we made net repayments of approximately $8.5 million on our revolving credit and accounts receivable facilities, and repaid approximately $7.0 million on our term loan. We also used a net cash amount of approximately $0.7 million related to our stock compensation arrangements.

Our Debt and Other Commitments

We are party to a Credit Agreement, consisting of a $500.0 million senior secured revolving credit facility, which permits borrowings denominated in specific foreign currencies ("Foreign Currency Loans"), subject to a $75.0 million sub limit, and a $275.0 million senior secured term loan A facility ("Term Loan A Facility"). The Credit Agreement matures on June 30, 2020 and is subject to interest at London Interbank Offered Rates ("LIBOR") plus 1.625%. The interest rate spread is based upon the leverage ratio, as defined, as of the most recent determination date.

At June 30, 2017, approximately $250.9 million was outstanding on the Term Loan A Facility and approximately $47.7 million was outstanding on the revolving credit facility. The Credit Agreement allows issuance of letters of credit, not to exceed $40.0 million in aggregate, against revolving credit facility commitments, of which approximately $16.3 million was outstanding at June 30, 2017.

The Credit Agreement also provides for incremental term loan facility and/or revolving credit commitments, not to exceed the greater of $300.0 million and an amount such that, after giving effect to the making of such commitments and the incurrence of any other indebtedness substantially simultaneously with the making of such commitments, the senior secured net leverage ratio, as defined in the Credit Agreement, is no greater than 2.50 to 1.00. The terms and conditions of any incremental term loan and/or revolving credit facility commitments must be no more favorable than the existing credit facility.

We may be required to prepay a portion of our Term Loan A Facility in an amount equal to a percentage of our excess cash flow, as defined, which such percentage will be based on our leverage ratio, as defined. As of June 30, 2017, no amounts are due under this provision.

Amounts drawn under our revolving credit facility fluctuate daily based upon our working capital and other ordinary course needs. Availability under our revolving credit facility depends upon, among other things, compliance with our Credit Agreement's financial covenants. Our Credit Agreement contains various negative and affirmative covenants and other requirements affecting us and our subsidiaries, including restrictions on incurrence of debt, liens, mergers, investments, loans, advances, guarantee obligations, acquisitions, asset dispositions, sale-leaseback transactions, hedging agreements, dividends and other restricted payments, transactions with affiliates, restrictive agreements and amendments to charters, bylaws, and other material documents. The terms of our Credit Agreement require us and our subsidiaries to meet certain restrictive financial covenants and ratios computed quarterly, including a maximum leverage ratio (total consolidated indebtedness plus outstanding amounts under the accounts receivable securitization facility over consolidated EBITDA, as defined) and a minimum interest expense coverage ratio (consolidated EBITDA, as defined, over cash interest expense, as defined). Our permitted leverage ratio under the Credit Agreement is 3.50 to 1.00 as of June 30, 2017. If we were to complete an acquisition which qualifies for a Covenant Holiday Period, as defined in our Credit Agreement, then our permitted leverage ratio cannot exceed 4.00 to 1.00 during that period. Our actual leverage ratio was 2.34 to 1.00 at June 30, 2017. Our permitted interest expense coverage ratio under the Credit Agreement is 3.00 to 1.00 as of June 30, 2017. Our actual interest expense coverage ratio was 12.12 to 1.00 at June 30, 2017. At June 30, 2017, we were in compliance with our financial covenants.

The following is a reconciliation of net income, as reported, which is a GAAP measure of our operating results, to Consolidated Bank EBITDA, as defined in our Credit Agreement, for the twelve months ended June 30, 2017 (dollars in thousands). We present Consolidated Bank EBITDA to show our performance under our financial covenants.

	Twelve Months Ended June 30, 2017
Net loss	$ (36,740)
Bank stipulated adjustments:	
Interest expense	13,940
Depreciation and amortization	45,730
Extraordinary non-cash charges	98,900
Non-cash compensation expense[(1)]	6,140
Other non-cash expenses or losses	13,190
Non-recurring expenses or costs relating to cost saving projects[(2)]	10,330
Acquisition integration costs[(3)]	350
Consolidated Bank EBITDA, as defined	$ 151,840

	June 30, 2017
Total Consolidated Indebtedness, as defined[(4)]	$ 354,720
Consolidated Bank EBITDA, as defined	151,840
Actual leverage ratio	2.34 x
Covenant requirement	3.50 x

	Twelve Months Ended June 30, 2017
Interest expense	$ 13,940
Bank stipulated adjustments:	
Non-cash amounts attributable to amortization of financing costs	(1,410)
Total Consolidated Cash Interest Expense, as defined	$ 12,530

	June 30, 2017
Consolidated Bank EBITDA, as defined	$ 151,840
Total Consolidated Cash Interest Expense, as defined	12,530
Actual interest expense coverage ratio	12.12 x
Covenant requirement	3.00 x

(1) Non-cash compensation expenses resulting from the grant of restricted shares and units of common stock and common stock options.

(2) Non-recurring costs and expenses relating to cost savings projects, including restructuring and severance expenses, not to exceed $15.0 million in any fiscal year and $40.0 million in aggregate, subsequent to June 30, 2015.

(3) Costs and expenses arising from the integration of any business acquired not to exceed $15.0 million in any fiscal year and $40.0 million in the aggregate.

(4) Includes $4.0 million of acquisition deferred purchase price.

Another important source of liquidity is our $75.0 million accounts receivable facility, under which we have the ability to sell eligible accounts receivable to a third-party multi-seller receivables funding company. Our available liquidity under our accounts receivable facility has ranged from approximately $49 million to $66 million, depending on the level of our receivables outstanding at a given point in time during the year. We had approximately $52.0 million and $45.5 million outstanding under the facility as of June 30, 2017 and December 31, 2016, respectively, and approximately $9.8 million and $10.1 million available but not utilized as of June 30, 2017 and December 31, 2016, respectively. At June 30, 2017, we had approximately $47.7 million outstanding under our revolving credit facility and had approximately $436.0 million potentially available after giving effect to approximately $16.3 million of letters of credit issued and outstanding. At December 31, 2016, we had approximately $75.9 million outstanding under our revolving credit facility and had approximately $408.2 million potentially available after giving effect to approximately $15.9 million of letters of credit issued and outstanding. The letters of credit are used for a variety of purposes, including support of certain operating lease agreements, vendor payment terms and other subsidiary operating activities, and to meet various states' requirements to self-insure workers' compensation claims, including incurred but not reported claims. Including availability under our accounts receivable facility and after consideration of leverage restrictions contained in the Credit Agreement, as of June 30, 2017 and December 31, 2016, we had approximately $176.7 million and $126.5 million, respectively, of borrowing capacity available for general corporate purposes.

We rely upon our cash flow from operations and available liquidity under our revolving credit and accounts receivable facilities to fund our debt service obligations and other contractual commitments, working capital and capital expenditure requirements. At the end of each quarter, we use cash on hand from our domestic and foreign subsidiaries to pay down amounts outstanding under our revolving credit and accounts receivable facilities.

The combined weighted average monthly amounts outstanding on our Credit Agreement and accounts receivable facilities during the first six months of 2017 approximated $404.0 million, compared to the weighted average monthly amounts outstanding during the first six months of 2016 of approximately $469.2 million. The overall decrease is primarily due to cash generated and used to repay amounts outstanding on our revolving credit facilities.

Cash management related to our revolving credit and accounts receivable facilities is centralized. We monitor our cash position and available liquidity on a daily basis and forecast our cash needs on a weekly basis within the current quarter and on a monthly basis outside the current quarter over the remainder of the year. Our business and related cash forecasts are updated monthly. While the majority of our cash on hand as of June 30, 2017 is located in jurisdictions outside the U.S., given aggregate available funding under our revolving credit and accounts receivable facilities of $176.7 million at June 30, 2017 (after consideration of the aforementioned leverage restrictions) and based on forecasted cash sources and requirements inherent in our business plans, we believe that our liquidity and capital resources, including anticipated cash flows from operations, will be sufficient to meet our debt service, capital expenditure and other short-term and long-term obligations for the foreseeable future.

Our exposure to interest rate risk results from the variable rates under our Credit Agreement. Borrowings under the Credit Agreement bear interest at various rates, as more fully described in Note 7, "*Long-term Debt*," to our consolidated financial statements included in Part I, Item 1 of this quarterly report on Form 10-Q. We use interest rate swap agreements to fix the LIBOR-based variable portion of the interest rates on our term loan facility. As of June 30, 2017, we had interest rate swap agreements in place that hedge a declining notional value of debt ranging from approximately $238.4 million to approximately $192.7 million, with established fixed interest rates in a range of 0.74% to 2.68%, with various expiration terms extending to June 30, 2020.

We are subject to variable interest rates on our term loan, revolving credit and accounts receivable facilities. At June 30, 2017, 1-Month LIBOR approximated 1.22%. Based on our variable rate-based borrowings outstanding at June 30, 2017, and after consideration of the interest rate swap agreement associated with our Term Loan A Facility, a 1% increase in the per annum interest rate would increase our interest expense by approximately $1.1 million annually.

Principal payments required under the Credit Agreement for the Term Loan A Facility are $3.4 million due each fiscal quarter from December 2015 through September 2018 and approximately $5.2 million due each fiscal quarter from December 2018 through March 2020, with final payment of $202.8 million due on June 30, 2020.

In addition to our long-term debt, we have other cash commitments related to leases. We account for these lease transactions as operating leases, and annual rent expense for continuing operations related thereto approximated $17.4 million in 2016. We expect to continue to utilize leasing as a financing strategy in the future to meet capital expenditure needs and to reduce debt levels.

Market Risk

We conduct business in various locations throughout the world and are subject to market risk due to changes in the value of foreign currencies. The functional currencies of our foreign subsidiaries are primarily the local currency in the country of domicile. We manage these operating activities at the local level and revenues and costs are generally denominated in local currencies; however, results of operations and assets and liabilities reported in U.S. dollars will fluctuate with changes in exchange rates between such local currencies and the U.S. dollar.

We have historically used derivative financial instruments to manage currency risks, albeit in immaterial notional contracts, as we explored the predictability of our procurement activities denominated in currencies other than the functional currency of our subsidiaries and the impact of currency rate volatility on our earnings.

We are also subject to interest risk as it relates to our long-term debt. We use interest rate swap agreements to fix the variable portion of our debt to manage this risk. See Note 8, "*Derivative Instruments*," included in Part 1, Item 1, "*Notes to Unaudited Consolidated Financial Statements*," within this quarterly report on Form 10-Q for additional information.

Common Stock

TriMas is listed in the NASDAQ Global Select Market[SM]. Our stock trades under the symbol "TRS."

Credit Rating

We and certain of our outstanding debt obligations are rated by Standard & Poor's and Moody's. On June 9, 2017, Moody's affirmed a rating of Ba3 to our senior secured credit facilities, as presented in Note 7, *"Long-term Debt"* included in Part I, Item 1, *"Notes to Unaudited Consolidated Financial Statements"* within this quarterly report on Form 10-Q. Moody's also affirmed a Ba3 to our Corporate Family Rating and maintained its outlook as stable. On June 23, 2017, Standard & Poor's affirmed a BB- corporate credit rating to our credit facilities and maintained its outlook as stable. If our credit ratings were to decline, our ability to access certain financial markets may become limited, our cost of borrowings may increase, the perception of us in the view of our customers, suppliers and security holders may worsen and as a result, we may be adversely affected.

Outlook

The past few years have been a period of significant change for TriMas, with portfolio reshaping as part of spinning-off our former Cequent business in 2015, various acquisitions within our Packaging and Aerospace businesses and significant reductions in our fixed cost structure in response to challenging macroeconomic conditions. In addition, we underwent a CEO leadership transition in July 2016, and have a renewed focus on optimizing the financial performance of our current portfolio of businesses. We have also implemented a redefined TriMas Business Model that establishes the major tenants of how we now operate in 2017 and will in future years.

We remain cautiously optimistic about the possibility for growth in 2017, particularly focused on growth programs in our Packaging and Aerospace reportable segments, and have realized year-over-year growth in both of these segments during the first half of 2017. In addition, while uncertainty still exists with respect to the broader macroeconomic environment, there are signs of stabilization in certain of our key end markets, most notably within the Aerospace distribution channel, where year-over-year sales increased in the first half of 2017 compared to the first half of 2016, and increased quoting activity for upstream oil and gas-related business. There remains the potential that the new U.S. presidential administration might accelerate the U.S. industrial economy, which would benefit us given a majority of our sales and production is in the U.S. While these additional factors would be positive for TriMas, we are not counting on significant market improvement. Rather, we remain focused on managing internal projects that we control, including continued application of the TriMas Business Model within Energy and Aerospace to improve our manufacturing processes and product delivery, pruning our product portfolios to de-emphasize or no longer sell certain lower-margin products within certain regions, and seeking lower-cost sources for input costs, all while continuously assessing our manufacturing footprint and fixed cost structure.

Impact of New Accounting Standards

See Note 2, "*New Accounting Pronouncements*," included in Part 1, Item 1, "*Notes to Unaudited Consolidated Financial Statements*," within this quarterly report on Form 10-Q.

Critical Accounting Policies

Certain of our accounting policies require the application of significant judgment by management in selecting the appropriate assumptions for calculating financial estimates. By their nature, these judgments are subject to an inherent degree of uncertainty. These judgments are based on our historical experience, our evaluation of business and macroeconomic trends, and information from other outside sources, as appropriate.

During the quarter ended June 30, 2017, there were no material changes to the items that we disclosed as our critical accounting policies in Part II, Item 7, "*Management's Discussion and Analysis of Financial Condition and Results of Operations*," in the Annual Report on Form 10-K for the year ended December 31, 2016.

In completing our 2016 assessment of goodwill and indefinite-lived intangible assets, the fair value of the Aerospace reporting unit equaled carrying value following our recognition of goodwill and intangible asset impairment charges in the fourth quarter of 2016. All other reporting units with goodwill had an implied fair value greater than carrying value by more than 89% in our last quantitative assessment. The amount of remaining goodwill attributable to the Aerospace reporting unit was approximately $146.4 million as of each of June 30, 2017 and December 31, 2016. We have not identified any events or changes in circumstances that could reasonably be expected to have an other than temporary effect on the significant assumptions used in estimating the fair value of our Aerospace or other reporting units with goodwill.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

In the normal course of business, we are exposed to market risk associated with fluctuations in foreign currency exchange rates. We are also subject to interest risk as it relates to long-term debt. See Part I, Item 2, "*Management's Discussion and Analysis of Financial Condition and Results of Operations*," for details about our primary market risks, and the objectives and strategies used to manage these risks. Also see Note 7, "*Long-term Debt*," and Note 8, "*Derivative Instruments*," in Part I, Item 1, "*Notes to Unaudited Consolidated Financial Statements*," included within this quarterly report on Form 10-Q for additional information.

Item 4. Controls and Procedures

The Company maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed in the reports that the Company files or submits under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to the Company's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures.

Evaluation of disclosure controls and procedures

As of June 30, 2017, an evaluation was carried out by management, with the participation of the Chief Executive Officer and Chief Financial Officer, of the effectiveness of the Company's disclosure controls and procedures (as such term is defined in Rule 13a-15(e) and Rule 15d-15(e) of the Exchange Act) pursuant to Rule 13a-15 of the Exchange Act. The Company's disclosure controls and procedures are designed only to provide reasonable assurance that they will meet their objectives. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that as of June 30, 2017, the Company's disclosure controls and procedures are effective to provide reasonable assurance that they would meet their objectives.

Changes in internal control over financial reporting

There have been no changes in the Company's internal control over financial reporting during the quarter ended June 30, 2017 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II. OTHER INFORMATION

TRIMAS CORPORATION

Item 1. Legal Proceedings

See Note 9, "*Commitments and Contingencies*," included in Part I, Item 1, "*Notes to Unaudited Consolidated Financial Statements*," within this quarterly report on Form 10-Q.

Item 1A. Risk Factors

In addition to the other information set forth in this report, you should carefully consider the factors discussed in Part 1, Item 1A., "*Risk Factors*," in our Annual Report on Form 10-K for the year ended December 31, 2016, which could materially affect our business, financial condition or future results. There have been no significant changes in our risk factors as disclosed in our 2016 Form 10-K.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

At the Company’s Annual Meeting of Stockholders on May 16, 2017, the stockholders of the Company approved the TriMas Corporation 2017 Equity and Incentive Compensation Plan (the “2017 Plan”). The following description of the 2017 Plan is qualified in its entirety by reference to the 2017 Plan, which is filed as Exhibit 10.1 to this report and incorporated herein by reference.

In general, the 2017 Plan will be administered by the Compensation Committee (the “Compensation Committee”) of the Company’s Board of Directors (the “Board”) (or its successor) or any other committee of the Board designated by the Board, as applicable. The Compensation Committee may from time to time delegate all or any part of its authority under the 2017 Plan to a subcommittee. The 2017 Plan will enable the Compensation Committee to provide equity and incentive compensation to (1) the Company’s officers and other key employees (and those of its subsidiaries), including persons who have agreed to commence serving in such capacity within 90 days of the grant of the applicable award, (2) the Company’s non-employee directors and (3) certain other individuals who provide employee-type services. Pursuant to the 2017 Plan, the Company may grant equity-based or cash compensation generally in form of stock options, appreciation rights, restricted stock, restricted stock units, performance shares, performance units, dividend equivalents, other stock-based awards and cash incentive awards upon terms and conditions as further described in the 2017 Plan. The 2017 Plan will permit the Company to grant awards that may be able to qualify as “qualified performance-based compensation” under Section 162(m) of the Internal Revenue Code of 1986, as amended (“Section 162(m)”) and awards that are not intended to so qualify.

Subject to adjustment as described in the 2017 Plan, and subject to the 2017 Plan’s share counting rules, a total of 2,000,000 shares of common stock are available for awards granted under the 2017 Plan. These shares may be shares of original issuance or treasury shares, or a combination of both. The aggregate number of shares available under the 2017 Plan will be reduced by one share of common stock for every one share subject to an award granted under the 2017 Plan. Shares underlying certain awards under the 2017 Plan that expire or are forfeited, cancelled or settled for cash (or are unearned) will again be available under the 2017 Plan, as further described in the 2017 Plan.

The 2017 Plan also provides that, subject to adjustment as described in the 2017 Plan:

- the aggregate number of shares of common stock actually issued or transferred upon the exercise of incentive stock options will not exceed 2,000,000 shares of common stock;

- no participant will be granted stock options and/or appreciation rights, in the aggregate, for more than 750,000 shares of common stock during any calendar year, except that such limit is multiplied by two for a participant’s first year of service with the Company or any subsidiary;

- no participant will be granted awards of restricted stock, restricted stock units, performance shares and/or other stock-based awards that are intended to qualify as "qualified performance-based compensation" under Section 162(m) ("Qualified Performance-Based Awards"), in the aggregate, for more than 750,000 shares of common stock during any calendar year, except that such limit is multiplied by two for a participant's first year of service with the Company or any subsidiary;

- no participant in any calendar year will receive an award of performance units and/or certain other awards payable in cash (excluding cash incentive awards) that are Qualified Performance-Based Awards having an aggregate maximum value as of their respective grant dates in excess of $4,000,000, except that such limit is multiplied by two for a participant's first year of service with the Company or any subsidiary; and

- generally, no non-employee director will be granted, in any period of one calendar year, awards under the 2017 Plan having an aggregate maximum value at the date of grant (calculating the value of any such awards based on the grant date fair value for financial reporting purposes), taken together with any cash fees payable to the non-employee director for the calendar year, in excess of $500,000 ($600,000 with respect to a non-executive chairperson), except that such limit may be increased to $650,000 ($750,000 with respect to a non-executive chairperson).

The 2017 Plan permits the Compensation Committee to make certain performance-based awards to participants under the 2017 Plan, which awards will be earned based upon the achievement of management objectives. The management objectives underlying each such award will be determined by the Compensation Committee based on one or more, or a combination, of the following metrics if the award is a Qualified Performance-Based Award:

- Profits (e.g., gross profit, gross profit growth, operating income, earnings before or after deduction for all or any portion of interest, taxes, depreciation or amortization, net income (before or after taxes), consolidated net income, net earnings, net sales, cost of sales, basic or diluted earnings per share (before or after taxes), residual or economic earnings, net operating profit (before or after taxes), or economic profit);

- Cash Flow (e.g., actual or adjusted earnings before or after interest, taxes, depreciation and/or amortization (including EBIT and EBITDA), free cash flow, free cash flow with or without specific capital expenditure target or range, including or excluding divestments and/or acquisitions, operating cash flow, total cash flow, cash flow in excess of cost of capital or residual cash flow, or cash flow return on investment);

- Returns (e.g., profits or cash flow returns on: assets, investment, capital, invested capital, net capital employed, equity, or sales);

- Working Capital (e.g., working capital targets, working capital divided by sales, days' sales outstanding, days' sales inventory, or days' sales in payables);

- Profit Margins (e.g., profits divided by revenues or gross margins and material margins divided by revenues);

- Liquidity Measures (e.g., debt-to-capital, debt-to-EBITDA, or total debt ratio);

- Sales Growth, Gross Margin Growth, Cost Initiative and Stock Price Metrics (e.g., revenue, net revenue, revenue growth, net revenue growth, revenue growth outside the United States, gross margin and gross margin growth, material margin and material margin growth, stock price appreciation, total return to stockholders, sales and administrative costs divided by sales, or sales and administrative costs divided by profits); and

- Strategic Initiative Key Deliverable Metrics consisting of one or more of the following: product development; strategic partnering; research and development; vitality index; market penetration; market share; geographic business expansion goals; expense targets or cost reduction goals; general and administrative expense savings; selling, general and administrative expenses; objective measures of client/customer satisfaction; employee satisfaction; employee retention; management of employment practices and employee benefits; supervision of litigation and information technology; productivity ratios; economic value added (or another measure of profitability that considers the cost of capital employed); product quality; sales of new products; or goals relating to acquisitions or divestitures of subsidiaries, affiliates and joint ventures.

The Board generally will be able to amend the 2017 Plan, subject to stockholder approval in certain circumstances as described in the 2017 Plan.

Item 6. Exhibits

Exhibits Index:

3.1(a)	Fourth Amended and Restated Certificate of Incorporation of TriMas Corporation.
3.2(b)	Third Amended and Restated By-laws of TriMas Corporation.
10.1	TriMas Corporation 2017 Equity and Incentive Compensation Plan.
10.2	Amendment No. 8, effective as of April 21, 2017, to the Amended and Restated Receivables Transfer Agreement.
10.3	Sixth Amended and Restated Fee Letter, dated as of April 21, 2017, among Wells Fargo Bank, National Association, as Administrative Agent, TSPC, Inc., as Transferor, TriMas Corporation, as Collection Agent, TriMas Company LLC, as Guarantor, and the persons from time to time party thereto as Purchasers.
31.1	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

(a) Incorporated by reference to the Exhibits filed with our Quarterly Report on Form 10-Q filed on August 3, 2007 (File No. 001-10716).

(b) Incorporated by reference to the Exhibits filed with our Current Report on Form 8-K filed on December 18, 2015 (File No. 001-10716).

Signatures

Pursuant to the requirements 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.

TRIMAS CORPORATION (Registrant)

			/s/ ROBERT J. ZALUPSKI
Date:	July 27, 2017	By:	Robert J. Zalupski *Chief Financial Officer*

Exhibit 10.1

TRIMAS CORPORATION

2017 EQUITY AND INCENTIVE COMPENSATION PLAN

1. **Purpose.** The purpose of this Plan is to attract and retain non-employee Directors and officers and other key employees of the Company and its Subsidiaries and to provide to such persons incentives and rewards for service or performance.

2. **Definitions.** As used in this Plan:

(a) "Appreciation Right" means a right granted pursuant to **Section 5** of this Plan.

(b) "Base Price" means the price to be used as the basis for determining the Spread upon the exercise of an Appreciation Right.

(c) "Board" means the Board of Directors of the Company.

(d) "Cash Incentive Award" means a cash award granted pursuant to **Section 8** of this Plan.

(e) "Change in Control" has the meaning set forth in **Section 12** of this Plan.

(f) "Code" means the Internal Revenue Code of 1986, as amended from time to time.

(g) "Committee" means the Compensation Committee of the Board (or its successor(s)), or any other committee of the Board designated by the Board to administer this Plan pursuant to **Section 10** of this Plan, and to the extent of any delegation by the Committee to a subcommittee pursuant to **Section 10** of this Plan, such subcommittee.

(h) "Common Stock" means the common stock, par value $0.01 per share, of the Company or any security into which such common stock may be changed by reason of any transaction or event of the type referred to in **Section 11** of this Plan.

(i) "Company" means TriMas Corporation, a Delaware corporation, and its successors.

(j) "Date of Grant" means the date specified by the Committee on which a grant of Option Rights, Appreciation Rights, Performance Shares, Performance Units, Cash Incentive Awards, or other awards contemplated by **Section 9** of this Plan, or a grant or sale of Restricted Stock, Restricted Stock Units, or other awards contemplated by **Section 9** of this Plan, will become effective (which date will not be earlier than the date on which the Committee takes action with respect thereto).

(k) "Director" means a member of the Board.

(l) "Effective Date" means the date this Plan is approved by the Stockholders.

(m) "Evidence of Award" means an agreement, certificate, resolution or other type or form of writing or other evidence approved by the Committee that sets forth the terms and conditions of the awards granted under this Plan. An Evidence of Award may be in an electronic medium, may be limited to notation on the books and records of the Company and, unless otherwise determined by the Committee, need not be signed by a representative of the Company or a Participant.

(n) "Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder, as such law, rules and regulations may be amended from time to time.

(o) "Incentive Stock Option" means an Option Right that is intended to qualify as an "incentive stock option" under Section 422 of the Code or any successor provision.

(p) "Management Objectives" means the measurable performance objective or objectives established pursuant to this Plan for Participants who have received grants of Performance Shares, Performance Units or Cash Incentive Awards or, when so determined by the Committee, Option Rights, Appreciation Rights, Restricted Stock, Restricted Stock Units, dividend equivalents or other awards pursuant to this Plan. Management Objectives may be described in terms of Company-wide objectives or objectives that are related to the performance of the individual Participant or of one or more of the subsidiaries, divisions, departments, regions, functions or other organizational units within the Company or its Subsidiaries. The Management Objectives may be made relative to the performance of other companies or subsidiaries, divisions, departments, regions, functions or other organizational units within such other companies, and may be made relative to an index or one or more of the performance objectives themselves. The Committee may grant awards subject to Management Objectives that are either Qualified Performance-Based Awards or are not Qualified Performance-Based Awards. The Management Objectives applicable to any Qualified Performance-Based Award will be based on one or more, or a combination, of the following metrics (including relative or growth achievement regarding such metrics):

(i) **Profits** (e.g., gross profit, gross profit growth, operating income, earnings before or after deduction for all or any portion of interest, taxes, depreciation or amortization, net income (before or after taxes), consolidated net income, net earnings, net sales, cost of sales, basic or diluted earnings per share (before or after taxes), residual or economic earnings, net operating profit (before or after taxes), or economic profit);

(ii) **Cash Flow** (e.g., actual or adjusted earnings before or after interest, taxes, depreciation and/or amortization (including EBIT and EBITDA), free cash flow, free cash flow with or without specific capital expenditure target or range, including or excluding divestments and/or acquisitions, operating cash flow, total cash flow, cash flow in excess of cost of capital or residual cash flow, or cash flow return on investment);

(iii) **Returns** (e.g., profits or cash flow returns on: assets, investment, capital, invested capital, net capital employed, equity, or sales);

(iv) **Working Capital** (e.g., working capital targets, working capital divided by sales, days' sales outstanding, days' sales inventory, or days' sales in payables);

(v) **Profit Margins** (e.g., profits divided by revenues or gross margins and material margins divided by revenues);

(vi) **Liquidity Measures** (e.g., debt-to-capital, debt-to-EBITDA, or total debt ratio);

(vii) **Sales Growth, Gross Margin Growth, Cost Initiative and Stock Price Metrics** (e.g., revenue, net revenue, revenue growth, net revenue growth, revenue growth outside the United States, gross margin and gross margin growth, material margin and material margin growth, stock price appreciation, total return to stockholders, sales and administrative costs divided by sales, or sales and administrative costs divided by profits); and

(viii) **Strategic Initiative Key Deliverable Metrics** consisting of one or more of the following: product development, strategic partnering, research and development, vitality index, market penetration, market share, geographic business expansion goals, expense targets or cost reduction goals, general and administrative expense savings, selling, general and administrative expenses, objective measures of client/customer satisfaction, employee satisfaction, employee retention, management of employment practices and employee benefits, supervision of litigation and information technology, productivity ratios, economic value added (or another measure of profitability that considers the cost of capital employed), product quality, sales of new products, or goals relating to acquisitions or divestitures of subsidiaries, affiliates and joint ventures.

In the case of a Qualified Performance-Based Award, each Management Objective will be objectively determinable to the extent required under Section 162(m) of the Code, and, unless otherwise determined by the Committee and to the extent consistent with Code Section 162(m), will exclude the effects of certain designated items identified at the time of grant. Management Objectives that are financial metrics may be determined in accordance with United States Generally Accepted Accounting Principles ("GAAP") or financial metrics that are based on, or able to be derived from GAAP, and may be adjusted when established (or to the extent permitted under Section 162(m) of the Code, at any time thereafter) to include or exclude any items otherwise includable or excludable under GAAP. If the Committee determines that a change in the business, operations, corporate structure or capital structure of the Company, or the manner in which it conducts its business, or other events or circumstances render the Management Objectives unsuitable, the Committee may in its discretion modify such Management Objectives or the acceptable levels of achievement, in whole or in part, as the Committee deems appropriate and equitable, except in the case of a Qualified Performance-Based Award (other than in connection with a Participant's death or disability or a Change in Control) where such action would result in the loss of the otherwise available exemption of the award under Section 162(m) of the Code.

(q) "Market Value per Share" means, as of any particular date, the closing price of a share of Common Stock as reported for that date on the NASDAQ Stock Market or, if the shares of Common Stock are not then listed on the NASDAQ Stock Market, on any other national securities exchange on which the shares of Common Stock are listed, or if there are no sales on such date, on the next preceding trading day during which a sale occurred. If there is no regular public trading market for the shares of Common Stock, then the Market Value per Share shall be the fair market value as determined in good faith by the Committee. The Committee is authorized to adopt another fair market value pricing method provided such method is stated in the applicable Evidence of Award and is in compliance with the fair market value pricing rules set forth in Section 409A of the Code.

(r) "Optionee" means the optionee named in an Evidence of Award evidencing an outstanding Option Right.

(s) "Option Price" means the purchase price payable on exercise of an Option Right.

(t) "Option Right" means the right to purchase shares of Common Stock upon exercise of an award granted pursuant to **Section 4** of this Plan.

(u) "Participant" means a person who is selected by the Committee to receive benefits under this Plan and who is at the time (i) an officer or other key employee of the Company or any Subsidiary, including a person who has agreed to commence serving in such capacity within 90 days of the Date of Grant, (ii) a person who provides services to the Company or any Subsidiary that are equivalent to those typically provided by an employee (provided that such person satisfies the Form S-8 definition of an "employee"), or (iii) a non-employee Director.

(v) "Performance Period" means, in respect of a Cash Incentive Award, Performance Share or Performance Unit, a period of time established pursuant to **Section 8** of this

Plan within which the Management Objectives relating to such Cash Incentive Award, Performance Share or Performance Unit are to be achieved.

(w) "Performance Share" means a bookkeeping entry that records the equivalent of one share of Common Stock awarded pursuant to **Section 8** of this Plan.

(x) "Performance Unit" means a bookkeeping entry awarded pursuant to **Section 8** of this Plan that records a unit equivalent to $1.00 or such other value as is determined by the Committee.

(y) "Person" means any individual, entity, or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Exchange Act).

(z) "Plan" means this TriMas Corporation 2017 Equity and Incentive Compensation Plan, as amended from time to time.

(aa) "Predecessor Plans" means the TriMas Corporation 2011 Omnibus Incentive Compensation Plan, as amended, and the TriMas Corporation 2006 Long Term Equity Incentive Plan, as amended.

(bb) "Qualified Performance-Based Award" means any Cash Incentive Award or award of Performance Shares, Performance Units, Restricted Stock, Restricted Stock Units or other awards contemplated under **Section 9** of this Plan, or portion of such award, that is intended to satisfy the requirements for "qualified performance-based compensation" under Section 162(m) of the Code.

(cc) "Restricted Stock" means shares of Common Stock granted or sold pursuant to **Section 6** of this Plan as to which neither the substantial risk of forfeiture nor the prohibition on transfers has expired.

(dd) "Restricted Stock Units" means an award made pursuant to **Section 7** of this Plan of the right to receive shares of Common Stock, cash or a combination thereof at the end of the applicable Restriction Period.

(ee) "Restriction Period" means the period of time during which Restricted Stock Units are subject to restrictions, as provided in **Section 7** of this Plan.

(ff) "Spread" means the excess of the Market Value per Share on the date when an Appreciation Right is exercised over the Base Price provided for with respect to the Appreciation Right.

(gg) "Stockholder" means an individual or entity that owns one or more shares of Common Stock.

(hh) "Subsidiary" means a corporation, company or other entity (i) more than 50% of whose outstanding shares or securities (representing the right to vote for the election of directors or other managing authority) are, or (ii) which does not have outstanding shares or securities (as may be the case in a partnership, joint venture, limited liability company, unincorporated association or other similar entity), but more than 50% of whose ownership interest representing the right generally to make decisions for such other entity is, now or hereafter, owned or controlled, directly or indirectly, by the Company; provided, however, that for purposes of determining whether any person may be a Participant for purposes of any grant of Incentive Stock Options, "Subsidiary" means any corporation in which the Company at the time owns or controls, directly or indirectly, more than 50% of the total combined Voting Power represented by all classes of stock issued by such corporation.

(ii) "Voting Power" means, at any time, the combined voting power of the then-outstanding securities entitled to vote generally in the election of Directors in the case of the Company or members of the board of directors or similar body in the case of another entity.

3. **Shares Available Under this Plan.**

(a) Maximum Shares Available Under this Plan.

(i) Subject to adjustment as provided in **Section 11** of this Plan and the share counting rules set forth in **Section 3(b)** of this Plan, the number of shares of Common Stock available under this Plan for awards of (A) Option Rights or Appreciation Rights, (B) Restricted Stock, (C) Restricted Stock Units, (D) Performance Shares or Performance Units, (E) awards contemplated by **Section 9** of this Plan, or (F) dividend equivalents paid with respect to awards made under this Plan will not exceed in the aggregate (x) 2,000,000 shares of Common Stock minus (y) as of the Effective Date, one share of Common Stock for every one share of Common Stock subject to an award granted under the Predecessor Plans between March 14, 2017 and the Effective Date. Such shares may be shares of original issuance or treasury shares or a combination of the foregoing.

(ii) The aggregate number of shares of Common Stock available under **Section 3(a)(i)** of this Plan will be reduced by one share of Common Stock for every one share of Common Stock subject to an award granted under this Plan.

(b) Share Counting Rules.

(i) Except as provided in **Section 22** of this Plan, if any award granted under this Plan is cancelled or forfeited, expires or is settled for cash (in whole or in part), or is unearned, the shares of Common Stock subject to such award will, to the extent of such cancellation, forfeiture, expiration, cash settlement, or unearned amount, again be available under **Section 3(a)(i)** above.

(ii) If, after March 14, 2017, any shares of Common Stock subject to an award granted under the Predecessor Plans are forfeited, or an award granted under the Predecessor Plans is cancelled or forfeited, expires or is settled for cash (in whole or in part), or is unearned, the shares of Common Stock subject to such award will, to the extent of such cancellation, forfeiture, expiration, cash settlement, or unearned amount, be available for awards under this Plan.

(iii) Notwithstanding anything to the contrary contained in this Plan: (A) shares of Common Stock withheld by the Company, tendered or otherwise used in payment of the Option Price of an Option Right will not be added (or added back, as applicable) to the aggregate number of shares of Common Stock available under **Section 3(a)(i)** of this Plan; (B) shares of Common Stock withheld by the Company, tendered or otherwise used to satisfy a tax withholding obligation (1) with respect only to awards other than Option Rights or Appreciation Rights, will be added (or added back, as applicable) to the aggregate number of shares of Common Stock available under **Section 3(a)(i)** of this Plan on and after May 11, 2017 until May 10, 2027 but (2) will not be added (or added back, as applicable) to the aggregate number of shares of Common Stock available under **Section 3(a)(i)** of this Plan on or after May 11, 2027; (C) shares of Common Stock subject to an Appreciation Right that are not actually issued in connection with the settlement of such Appreciation Right on the exercise thereof, will not be added back to the aggregate number of shares of Common Stock available under **Section 3(a)(i)** of this Plan; and (D) shares of Common Stock reacquired by the Company on the open market or otherwise using cash proceeds from the exercise of Option Rights will not be added to the aggregate number of shares of Common Stock available under **Section 3(a)(i)** of this Plan.

(iv) If, under this Plan, a Participant has elected to give up the right to receive compensation in exchange for shares of Common Stock based on fair market value, such shares of Common Stock will not count against the aggregate limit under **Section 3(a)(i)** of this Plan.

(c) Limit on Incentive Stock Options. Notwithstanding anything to the contrary contained in this **Section 3** or elsewhere in this Plan, and subject to adjustment as provided in **Section 11** of this Plan, the aggregate number of shares of Common Stock actually issued or transferred by the Company upon the exercise of Incentive Stock Options will not exceed 2,000,000 shares of Common Stock.

(d) Individual Participant Limits. Notwithstanding anything to the contrary contained in this **Section 3** or elsewhere in this Plan, and subject to adjustment as provided in **Section 11** of this Plan:

(i) In no event will any Participant in any calendar year be granted Option Rights and/or Appreciation Rights, in the aggregate, for more than 750,000 shares of Common Stock; provided, however, that with respect to a Participant's first calendar year of service with the Company or a Subsidiary, the amount set forth in this **Section 3(d)(i)** is multiplied by two.

(ii) In no event will any Participant in any calendar year be granted Qualified Performance-Based Awards of Restricted Stock, Restricted Stock Units, Performance Shares and/or other awards under **Section 9** of this Plan, in the aggregate, for more than 750,000 shares of Common Stock; provided, however, that with respect to a Participant's first calendar year of service with the Company or a Subsidiary, the amount set forth in this **Section 3(d)(ii)** is multiplied by two.

(iii) In no event will any Participant in any calendar year receive Qualified Performance-Based Awards of Performance Units and/or other awards payable in cash under **Section 9** of this Plan having an aggregate maximum value as of their respective Dates of Grant in excess of $4,000,000; provided, however, that with respect to a Participant's first calendar year of service with the Company or a Subsidiary, the amount set forth in this **Section 3(d)(iii)** is multiplied by two.

(iv) In no event will any Participant in any calendar year receive Qualified Performance-Based Awards that are Cash Incentive Awards having an aggregate maximum value in excess of $4,000,000; provided, however, that with respect to a Participant's first calendar year of service with the Company or a Subsidiary, the amount set forth in this **Section 3(d)(iv)** is multiplied by two.

(v) In no event will any non-employee Director in any calendar year be granted awards under this Plan having an aggregate maximum value at the Date of Grant (calculating the value of any such awards based on the grant date fair value for financial reporting purposes), taken together with any cash fees payable to such non-employee Director for such calendar year, in excess of (A) with respect to the non-executive chairperson of the Board, $600,000 and (B) with respect to any other non-employee Director, $500,000. Notwithstanding the foregoing, in the event of extraordinary circumstances (as determined by the Board) the amounts set forth in the preceding sentence shall be increased to $750,000 with respect to the non-executive chairperson of the Board and $650,000 with respect to any other non-employee Director, as applicable, provided that such increase may apply only if any such non-employee Director receiving additional compensation as a result of such extraordinary circumstances does not participate in the determination that extraordinary circumstances exist, in the decision to award such compensation or in other contemporaneous compensation decisions involving non-employee Directors.

(e) Notwithstanding anything in this Plan to the contrary (except for the discretionary acceleration provisions of this Plan), up to 5% of the aggregate number of shares of Common Stock available for awards under **Section 3(a)(i)** of this Plan, as may be adjusted under **Section 11** of this Plan, may be used for awards granted under **Section 4** through **Section 9** of this Plan that do not at grant comply with the applicable one-year minimum vesting or performance period requirements set forth in such sections of this Plan.

4. **Option Rights.** The Committee may, from time to time and upon such terms and conditions as it may determine, authorize the granting to Participants of Option Rights. Each such grant may utilize any or all of the authorizations, and will be subject to all of the requirements, contained in the following provisions:

(a) Each grant will specify the number of shares of Common Stock to which it pertains subject to the limitations set forth in **Section 3** of this Plan.

(b) Each grant will specify an Option Price per share of Common Stock, which (except with respect to awards under **Section 22** of this Plan) may not be less than the Market Value per Share on the Date of Grant.

(c) Each grant will specify whether the Option Price will be payable (i) in cash, by check acceptable to the Company or by wire transfer of immediately available funds, (ii) by the actual or constructive transfer to the Company of shares of Common Stock owned by the Optionee having a value at the time of exercise equal to the total Option Price, (iii) subject to any conditions or limitations established by the Committee, by the Company's withholding of shares of Common Stock otherwise issuable upon exercise of an Option Right pursuant to a "net exercise" arrangement (it being understood that, solely for purposes of determining the number of treasury shares held by the Company, the shares of Common Stock so withheld will not be treated as issued and acquired by the Company upon such exercise), (iv) by a combination of such methods of payment, or (v) by such other methods as may be approved by the Committee.

(d) To the extent permitted by law, any grant may provide for deferred payment of the Option Price from the proceeds of sale through a bank or broker on a date satisfactory to the Company of some or all of the shares of Common Stock to which such exercise relates.

(e) Successive grants may be made to the same Participant whether or not any Option Rights previously granted to such Participant remain unexercised.

(f) Each grant will specify the period or periods of continuous service by the Optionee with the Company or any Subsidiary that is necessary before any Option Rights or installments thereof will become exercisable; provided, that, except as otherwise described in this subsection, no Option Rights may become exercisable sooner than after one year or a one-year performance period. Option Rights may provide for continued vesting or the earlier exercise of such Option Rights, including in the event of the retirement, death or disability of a Participant or in the event of a Change in Control.

(g) Any grant of Option Rights may specify Management Objectives that must be achieved as a condition to the exercise of such rights.

(h) Option Rights granted under this Plan may be (i) options, including Incentive Stock Options, that are intended to qualify under particular provisions of the Code, (ii) options that are not intended to so qualify, or (iii) combinations of the foregoing. Incentive Stock Options may only be granted to Participants who meet the definition of “employees” under Section 3401(c) of the Code.

(i) No Option Right will be exercisable more than 10 years from the Date of Grant. The Committee may provide in any Evidence of Award for the automatic exercise of an Option Right upon such terms and conditions as established by the Committee.

(j) Option Rights granted under this Plan may not provide for any dividends or dividend equivalents thereon.

(k) Each grant of Option Rights will be evidenced by an Evidence of Award. Each Evidence of Award will be subject to this Plan and will contain such terms and provisions, consistent with this Plan, as the Committee may approve.

5. **Appreciation Rights.**

(a) The Committee may, from time to time and upon such terms and conditions as it may determine, authorize the granting to any Participant of Appreciation Rights. An Appreciation Right will be the right of the Participant to receive from the Company an amount determined by the Committee, which will be expressed as a percentage of the Spread (not exceeding 100%) at the time of exercise.

(b) Each grant of Appreciation Rights may utilize any or all of the authorizations, and will be subject to all of the requirements, contained in the following provisions:

(i) Each grant may specify that the amount payable on exercise of an Appreciation Right will be paid by the Company in cash, shares of Common Stock or any combination thereof.

(ii) Any grant may specify that the amount payable on exercise of an Appreciation Right may not exceed a maximum specified by the Committee on the Date of Grant.

(iii) Any grant may specify waiting periods before exercise and permissible exercise dates or periods.

(iv) Each grant will specify the period or periods of continuous service by the Participant with the Company or any Subsidiary that is necessary before the Appreciation Rights or installments thereof will become exercisable; provided, that, except as otherwise described in this subsection, no Appreciation Rights may become exercisable sooner than after one year or a one-year performance period. Appreciation Rights may provide for continued vesting or the earlier exercise of such Appreciation Rights, including in the event of the retirement, death or disability of a Participant or in the event of a Change in Control.

(v) Any grant of Appreciation Rights may specify Management Objectives that must be achieved as a condition of the exercise of such Appreciation Rights.

(vi) Appreciation Rights granted under this Plan may not provide for any dividends or dividend equivalents thereon.

(vii) Successive grants of Appreciation Rights may be made to the same Participant regardless of whether any Appreciation Rights previously granted to the Participant remain unexercised.

(viii) Each grant of Appreciation Rights will be evidenced by an Evidence of Award. Each Evidence of Award will be subject to this Plan and will contain such terms and provisions, consistent with this Plan, as the Committee may approve.

(c) Also, regarding Appreciation Rights:

(i) Each grant will specify in respect of each Appreciation Right a Base Price, which (except with respect to awards under **Section 22** of this Plan) may not be less than the Market Value per Share on the Date of Grant; and

(ii) No Appreciation Right granted under this Plan may be exercised more than 10 years from the Date of Grant. The Committee may provide in any Evidence of Award for the automatic exercise of a Appreciation

Right upon such terms and conditions as established by the Committee.

6. **Restricted Stock.** The Committee may, from time to time and upon such terms and conditions as it may determine, authorize the grant or sale of Restricted Stock to Participants. Each such grant or sale may utilize any or all of the authorizations, and will be subject to all of the requirements, contained in the following provisions:

(a) Each such grant or sale will constitute an immediate transfer of the ownership of shares of Common Stock to the Participant in consideration of the performance of services, entitling such Participant to voting, dividend and other ownership rights, but subject to the substantial risk of forfeiture and restrictions on transfer hereinafter described.

(b) Each such grant or sale may be made without additional consideration or in consideration of a payment by such Participant that is less than the Market Value per Share on the Date of Grant.

(c) Each such grant or sale will provide that the Restricted Stock covered by such grant or sale will be subject to a "substantial risk of forfeiture" within the meaning of Section 83 of the Code for a period to be determined by the Committee on the Date of Grant or until achievement of Management Objectives referred to in **Section 6(e)** of this Plan. If the elimination of restrictions is based only on the passage of time, the period of time will be no shorter than one year.

(d) Each such grant or sale will provide that during or after the period for which such substantial risk of forfeiture is to continue, the transferability of the Restricted Stock will be prohibited or restricted in the manner and to the extent prescribed by the Committee on the Date of Grant (which restrictions may include rights of repurchase or first refusal of the Company or provisions subjecting the Restricted Stock to a continuing substantial risk of forfeiture while held by any transferee).

(e) Any grant of Restricted Stock may specify Management Objectives that, if achieved, will result in termination or early termination of the restrictions applicable to such Restricted Stock; provided, however, that notwithstanding subparagraph (c) above, for Restricted Stock that vests upon the achievement of Management Objectives, the performance period must be at least one year.

(f) Notwithstanding anything to the contrary contained in this Plan (including minimum vesting requirements), Restricted Stock may provide for continued vesting or the earlier termination of restrictions on such Restricted Stock, including in the event of the retirement, death or disability of a Participant or in the event of a Change in Control; provided, however, that no award of Restricted Stock intended to be a Qualified Performance-Based Award will provide for such early termination of restrictions (other than in connection with the death or disability of the Participant or a Change in Control) to the extent such provisions would result in the loss of the otherwise available exemption of the award under Section 162(m) of the Code.

(g) Any such grant or sale of Restricted Stock will require that any and all dividends or other distributions paid thereon during the period of such restrictions be automatically deferred and/or reinvested in additional Restricted Stock, which will be subject to the same restrictions as the underlying award. For the avoidance of doubt, any such dividends or other distributions on Restricted Stock will be deferred until, and paid contingent upon, the vesting of such Restricted Stock.

(h) Each grant or sale of Restricted Stock will be evidenced by an Evidence of Award. Each Evidence of Award will be subject to this Plan and will contain such terms and provisions, consistent with this Plan, as the Committee may approve. Unless otherwise directed by the Committee, (i) all certificates representing Restricted Stock will be held in custody by the Company until all restrictions thereon will have lapsed, together with a stock power or powers executed by the Participant in whose name such certificates are registered, endorsed in blank and covering such shares or (ii) all Restricted Stock will be held at the Company's transfer agent in book entry form with appropriate restrictions relating to the transfer of such Restricted Stock.

7. **Restricted Stock Units.** The Committee may, from time to time and upon such terms and conditions as it may determine, authorize the granting or sale of Restricted Stock Units to Participants. Each such grant or sale may utilize any or all of the authorizations, and will be subject to all of the requirements, contained in the following provisions:

(a) Each such grant or sale will constitute the agreement by the Company to deliver shares of Common Stock or cash, or a combination thereof, to the Participant in the future in consideration of the performance of services, but subject to the fulfillment of such conditions (which may include the achievement of Management Objectives) during the Restriction Period as the Committee may specify.

(b) If a grant of Restricted Stock Units specifies that the Restriction Period will terminate only upon the achievement of Management Objectives or that the Restricted Stock Units will be earned based on the achievement of Management Objectives, then, notwithstanding anything to the contrary contained in subparagraph (d) below, the applicable performance period must be at least one year.

(c) Each such grant or sale may be made without additional consideration or in consideration of a payment by such Participant that is less than the Market Value per Share on the Date of Grant.

(d) If the Restriction Period lapses only by the passage of time rather than the achievement of Management Objectives as provided in subparagraph (b) above, each such grant or sale will be subject to a Restriction Period of not less than one year.

(e) Notwithstanding anything to the contrary contained in this Plan (including minimum vesting requirements), Restricted Stock Units may provide for continued vesting or the earlier lapse or other modification of the Restriction Period, including in the event of the retirement, death or disability of a Participant or in the event of a Change in Control; provided, however, that no award of Restricted Stock Units intended to be a Qualified Performance-Based Award will provide for such early lapse or modification of the Restriction Period (other than in connection with the death or disability of the Participant or a Change in Control) to the extent such provisions would result in the loss of the otherwise available exemption of the award under Section 162(m) of the Code.

(f) During the Restriction Period, the Participant will have no right to transfer any rights under his or her award and will have no rights of ownership in the shares of Common Stock deliverable upon payment of the Restricted Stock Units and will have no right to vote them, but the Committee may, at or after the Date of Grant, authorize the payment of dividend equivalents on such Restricted Stock Units on a deferred and contingent basis, either in cash or in additional shares of Common Stock; provided, however, that dividend equivalents or other distributions on shares of Common Stock underlying Restricted Stock Units will be deferred until and paid contingent upon the vesting of such Restricted Stock Units.

(g) Each grant or sale of Restricted Stock Units will specify the time and manner of payment of the Restricted Stock Units that have been earned. Each grant or sale will specify that the amount payable with respect thereto will be paid by the Company in shares of Common Stock or cash, or a combination thereof.

(h) Each grant or sale of Restricted Stock Units will be evidenced by an Evidence of Award. Each Evidence of Award will be subject to this Plan and will contain such terms and provisions, consistent with this Plan, as the Committee may approve.

8. **Cash Incentive Awards, Performance Shares and Performance Units.** The Committee may, from time to time and upon such terms and conditions as it may determine, authorize the granting of Cash Incentive Awards, Performance Shares and Performance Units. Each such grant may utilize any or all of the authorizations, and will be subject to all of the requirements, contained in the following provisions:

(a) Each grant will specify the number or amount of Performance Shares or Performance Units, or amount payable with respect to a Cash Incentive Award, to which it pertains, which number or amount may be subject to adjustment to reflect changes in compensation or other factors; provided, however, that no such adjustment will be made in the case of a Qualified Performance-Based Award (other than in connection with the death or disability of the Participant or a Change in Control) where such action would result in the loss of the otherwise available exemption of the award under Section 162(m) of the Code.

(b) The Performance Period with respect to each Cash Incentive Award or grant of Performance Shares or Performance Units will be such period of time (not less than one year) as will be determined by the Committee, which may be subject to continued vesting or earlier lapse or other modification, including in the event of the retirement, death or disability of a Participant or in the event of a Change in Control; provided, however, that no such adjustment will be made in the case of a Qualified Performance-Based Award (other than in connection with the death or disability of the Participant or a Change in Control) where such action would result in the loss of the otherwise available exemption of the award under Section 162(m) of the Code. In such event, the Evidence of Award will specify the time and terms of delivery.

(c) Each grant of a Cash Incentive Award, Performance Shares or Performance Units will specify Management Objectives which, if achieved, will result in payment or early payment of the award, and each grant may specify in respect of such specified Management Objectives a minimum acceptable level or levels of achievement and may set forth a formula for determining the number of Performance Shares or Performance Units, or amount payable with respect to a Cash Incentive Award, that will be earned if performance is at or above the minimum or threshold level or levels, or is at or above the target level or levels, but falls short of maximum achievement of the specified Management Objectives.

(d) Each grant will specify the time and manner of payment of a Cash Incentive Award, Performance Shares or Performance Units that have been earned. Any grant may specify that the amount payable with respect thereto may be paid by the Company in cash, in shares of Common Stock, in Restricted Stock or Restricted Stock Units or in any combination thereof.

(e) Any grant of a Cash Incentive Award, Performance Shares or Performance Units may specify that the amount payable or the number of shares of Common Stock, Restricted Stock or Restricted Stock Units payable with respect thereto may not exceed a maximum specified by the Committee on the Date of Grant.

(f) The Committee may, on the Date of Grant of Performance Shares or Performance Units, provide for the payment of dividend equivalents to the holder thereof either in cash or in additional shares of Common Stock, subject in all cases to deferral and payment on a contingent basis based on the Participant’s earning of the Performance Shares or Performance Units, as applicable, with respect to which such dividend equivalents are paid.

(g) Each grant of a Cash Incentive Award, Performance Shares or Performance Units will be evidenced by an Evidence of Award. Each Evidence of Award will be subject to this Plan and will contain such terms and provisions, consistent with this Plan, as the Committee may approve.

9. **Other Awards.**

(a) Subject to applicable law and the applicable limits set forth in **Section 3** of this Plan, the Committee may grant to any Participant shares of Common Stock or such other awards that may be denominated or payable in, valued in whole or in part by reference to, or otherwise based on, or related to, shares of Common Stock or factors that may influence the value of such shares, including, without limitation, convertible or exchangeable debt securities, other rights convertible or exchangeable into shares of Common Stock, purchase rights for shares of Common Stock, awards with value and payment contingent upon performance of the Company or specified Subsidiaries, affiliates or other business units thereof or any other factors designated by the Committee, and awards valued by reference to the book value of the shares of Common Stock or the value of securities of, or the performance of specified Subsidiaries or affiliates or other business units of the Company. The Committee will determine the terms and conditions of such awards. Shares of Common Stock delivered pursuant to an award in the nature of a purchase right granted under this **Section 9** will be purchased for such consideration, paid for at such time, by such methods, and in such forms, including, without limitation, shares of Common Stock, other awards, notes or other property, as the Committee determines.

(b) Cash awards, as an element of or supplement to any other award granted under this Plan, may also be granted pursuant to this **Section 9**.

(c) The Committee may grant shares of Common Stock as a bonus, or may grant other awards in lieu of obligations of the Company or a Subsidiary to pay cash or deliver other property under this Plan or under other plans or compensatory arrangements, subject to such terms as will be determined by the Committee in a manner that complies with Section 409A of the Code.

(d) If the earning or vesting of, or elimination of restrictions applicable to, an award granted under this **Section 9** is based only on the passage of time rather than the achievement of Management Objectives, the period of time shall be no shorter than one year. If the earning or vesting of, or elimination of restrictions applicable to, awards granted under this **Section 9** is based on the achievement of Management Objectives, the performance period must be at least one year.

(e) The Committee may, at or after the Date of Grant, authorize the payment of dividends or dividend equivalents on awards granted under this **Section 9** on a deferred and contingent basis, either in cash or in additional shares of Common Stock; provided, however, that dividend equivalents or other distributions on shares of Common Stock underlying awards granted under this **Section 9** will be deferred until and paid contingent upon the earning of such awards.

(f) Notwithstanding anything to the contrary contained in this Plan (including minimum vesting requirements), awards under this **Section 9** may provide for the earning or vesting of, or earlier elimination of restrictions applicable to, such award, including in the event of the retirement, death or disability of a Participant or in the event of a Change in Control; provided, however, that no such adjustment will be made in the case of a Qualified Performance-Based Award (other than in connection with the death or disability of the Participant or a Change in Control) where such action would result in the loss of the otherwise available exemption of the award under Section 162(m) of the Code. In such event, the Evidence of Award will specify the time and terms of delivery.

10. **Administration of this Plan.**

(a) This Plan will be administered by the Committee. The Committee may from time to time delegate all or any part of its authority under this Plan to a subcommittee thereof. To the extent of any such delegation, references in this Plan to the Committee will be deemed to be references to such subcommittee.

(b) The interpretation and construction by the Committee of any provision of this Plan or of any Evidence of Award (or related documents) and any determination by the

Committee pursuant to any provision of this Plan or of any such agreement, notification or document will be final and conclusive. No member of the Committee shall be liable for any such action or determination made in good faith. In addition, the Committee is authorized to take any action it determines in its sole discretion to be appropriate subject only to the express limitations contained in this Plan, and no authorization in any Plan section or other provision of this Plan is intended or may be deemed to constitute a limitation on the authority of the Committee.

(c) To the extent permitted by law, the Committee may delegate to one or more of its members, to one or more officers of the Company, or to one or more agents or advisors, such administrative duties or powers as it may deem advisable, and the Committee, the subcommittee, or any person to whom duties or powers have been delegated as aforesaid, may employ one or more persons to render advice with respect to any responsibility the Committee, the subcommittee or such person may have under this Plan. The Committee may, by resolution, authorize one or more officers of the Company to do one or both of the following on the same basis as the Committee: (i) designate employees to be recipients of awards under this Plan; and (ii) determine the size of any such awards; provided, however, that (A) the Committee will not delegate such responsibilities to any such officer for awards granted to an employee who is an officer, Director, or more than 10% "beneficial owner" (as such term is defined in Rule 13d-3 promulgated under the Exchange Act) of any class of the Company's equity securities that is registered pursuant to Section 12 of the Exchange Act, as determined by the Committee in accordance with Section 16 of the Exchange Act, or to any Participant who is, or is determined by the Committee to likely become, a "covered employee" within the meaning of Section 162(m) of the Code (or any successor provision); (B) the resolution providing for such authorization shall set forth the total number of shares of Common Stock such officer(s) may grant; and (C) the officer(s) will report periodically to the Committee regarding the nature and scope of the awards granted pursuant to the authority delegated.

11. **Adjustments.** The Committee shall make or provide for such adjustments in the number of and kind of shares of Common Stock covered by outstanding Option Rights, Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Shares and Performance Units granted hereunder and, if applicable, in the number of and kind of shares of Common Stock covered by other awards granted pursuant to **Section 9** of this Plan, in the Option Price and Base Price provided in outstanding Option Rights and Appreciation Rights, respectively, in Cash Incentive Awards, and in other award terms, as the Committee, in its sole discretion, exercised in good faith, determines is equitably required to prevent dilution or enlargement of the rights of Participants that otherwise would result from (a) any extraordinary cash dividend, stock dividend, stock split, combination of shares, recapitalization or other change in the capital structure of the Company, (b) any merger, consolidation, spin-off, split-off, spin-out, split-up, reorganization, partial or complete liquidation or other distribution of assets, issuance of rights or warrants to purchase securities, or (c) any other corporate transaction or event having an effect similar to any of the foregoing. Moreover, in the event of any such transaction or event or in the event of a Change in Control, the Committee may provide in substitution for any or all outstanding awards under this Plan such alternative consideration (including cash), if any, as it, in good faith, may determine to be equitable in the circumstances and shall require in connection therewith the surrender of all awards so replaced in a manner that complies with Section 409A of the Code. In addition, for each Option Right or Appreciation Right with an Option Price or Base Price, respectively, greater than

the consideration offered in connection with any such transaction or event or Change in Control, the Committee may in its discretion elect to cancel such Option Right or Appreciation Right without any payment to the Person holding such Option Right or Appreciation Right. The Committee shall also make or provide for such adjustments in the number of shares of Common Stock specified in **Section 3** of this Plan as the Committee in its sole discretion, exercised in good faith, determines is appropriate to reflect any transaction or event described in this **Section 11**; provided, however, that any such adjustment to the number specified in **Section 3(c)** of this Plan will be made only if and to the extent that such adjustment would not cause any Option Right intended to qualify as an Incentive Stock Option to fail to so qualify.

12. **Change in Control**. For purposes of this Plan, except as may be otherwise prescribed by the Committee in an Evidence of Award made under this Plan, a "Change in Control" will be deemed to have occurred upon the occurrence (after the Effective Date) of any of the following events:

(a) any Person is or becomes the beneficial owner (within the meaning of Rule 13d-3 promulgated under the Exchange Act), directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its affiliates) representing 35% or more of the combined voting power of the Company's then outstanding securities, excluding any Person who becomes such a beneficial owner in connection with a transaction described in clause (i) of **Section 12(c)** of this Plan;

(b) the following individuals cease for any reason to constitute a majority of the number of Directors then serving on the Board: individuals who, on the Effective Date, constitute the Board and any new Director (other than a Director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of Directors) whose appointment or election by the Board or nomination for election by the Stockholders was approved or recommended by a vote of at least two-thirds (2/3) of the Directors then still in office who either were Directors on the Effective Date or whose appointment, election or nomination for election was previously so approved or recommended (the "Incumbent Board"); provided, however, that no individual shall be considered a member of the Incumbent Board if such individual initially assumed office as a result of either an actual or threatened election contest (an "Election Contest") or other actual or threatened solicitation of proxies or consents by or on behalf of a Person other than the Board (a "Proxy Contest"), including by reason of any agreement intended to avoid or settle any Election Contest or Proxy Contest;

(c) there is consummated a merger, consolidation, wind-up, reorganization or restructuring of the Company with or into any other entity, or a similar event or series of such events, other than (i) any such event or series of events which results in (A) the voting securities of the Company outstanding immediately prior to such event or series of events continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or any parent thereof), in combination with the ownership of any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any subsidiary of the Company, at least 51% of the combined voting power of the securities of the Company or such surviving entity or any parent thereof outstanding immediately after such merger or consolidation and (B) the individuals who comprise the Board immediately prior thereto constituting immediately thereafter at least a majority of the board of directors of the Company, the entity surviving such merger or consolidation or, if the Company or the entity surviving such merger is then a subsidiary, the ultimate parent thereof, or (ii) any such event or series of events effected to implement a recapitalization of the Company (or similar transaction) in which no Person is or becomes the beneficial owner, directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its affiliates) representing 35% or more of the combined voting power of the Company's then outstanding securities; or

(d) the stockholders of the Company approve a plan of complete liquidation or dissolution of the Company or there is consummated an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets (it being conclusively presumed that any sale or disposition is a sale or disposition by the Company of all or substantially all of its assets if the consummation of the sale or disposition is contingent upon approval by the Stockholders unless the Board expressly determines in writing that such approval is required solely by reason of any relationship between the Company and any other Person or an affiliate of the Company and any other Person), other than a sale or disposition by the Company of all or substantially all of the Company's assets to an entity (i) at least 51% of the combined voting power of the voting securities of which are owned by Stockholders in substantially the same proportions as their ownership of the Company immediately prior to such sale or disposition and (ii) the majority of whose board of directors immediately following such sale or disposition consists of individuals who comprise the Board immediately prior thereto.

13. **Detrimental Activity and Recapture Provisions**. Any Evidence of Award may provide for the cancellation or forfeiture of an award or the forfeiture and repayment to the Company of any gain related to an award, or other provisions intended to have a similar effect, upon such terms and conditions as may be determined by the Committee from time to time, if a Participant, either (a) during employment or other service with the Company or a Subsidiary, or (b) within a specified period after termination of such employment or service, engages in any detrimental activity, as described in the applicable Evidence of Award. In addition, notwithstanding anything in this Plan to the contrary, any Evidence of Award may also provide for the cancellation or forfeiture of an award or the forfeiture and repayment to the Company of any shares of Common Stock issued under and/or any other benefit related to an award, or other provisions intended to have a similar effect, upon such terms and conditions as may be required by the Committee or under Section 10D of the Exchange Act and any applicable rules or regulations promulgated by the Securities and Exchange Commission or any national securities exchange or national securities association on which the shares of Common Stock may be traded.

14. **Non-U.S. Participants.** In order to facilitate the making of any grant or combination of grants under this Plan, the Committee may provide for such special terms for awards to Participants who are foreign nationals or who are employed by the Company or any Subsidiary outside of the United States of America or who provide services to the Company or any Subsidiary under an agreement with a foreign nation or agency, as the Committee may consider necessary or appropriate to accommodate differences in local law, tax policy or custom. Moreover, the Committee may

approve such supplements to or amendments, restatements or alternative versions of this Plan (including sub-plans) as it may consider necessary or appropriate for such purposes, without thereby affecting the terms of this Plan as in effect for any other purpose, and the secretary or other appropriate officer of the Company may certify any such document as having been approved and adopted in the same manner as this Plan. No such special terms, supplements, amendments or restatements, however, will include any provisions that are inconsistent with the terms of this Plan as then in effect unless this Plan could have been amended to eliminate such inconsistency without further approval by the Stockholders.

15. **Transferability.**

(a) Except as otherwise determined by the Committee, no Option Right, Appreciation Right, Restricted Stock, Restricted Stock Unit, Performance Share, Performance Unit, Cash Incentive Award, award contemplated by **Section 9** of this Plan or dividend equivalents paid with respect to awards made under this Plan will be transferable by the Participant except by will or the laws of descent and distribution. In no event will any such award granted under this Plan be transferred for value. Except as otherwise determined by the Committee, Option Rights and Appreciation Rights will be exercisable during the Participant's lifetime only by him or her or, in the event of the Participant's legal incapacity to do so, by his or her guardian or legal representative acting on behalf of the Participant in a fiduciary capacity under state law or court supervision.

(b) The Committee may specify on the Date of Grant that part or all of the shares of Common Stock that are (i) to be issued or transferred by the Company upon the exercise of Option Rights or Appreciation Rights, upon the termination of the Restriction Period applicable to Restricted Stock Units or upon payment under any grant of Performance Shares or Performance Units or (ii) no longer subject to the substantial risk of forfeiture and restrictions on transfer referred to in **Section 6** of this Plan, will be subject to further restrictions on transfer.

16. **Withholding Taxes.** To the extent that the Company is required to withhold federal, state, local or foreign taxes or other amounts in connection with any payment made or benefit realized by a Participant or other Person under this Plan, and the amounts available to the Company for such withholding are insufficient, it will be a condition to the receipt of such payment or the realization of such benefit that the Participant or such other Person make arrangements satisfactory to the Company for payment of the balance of such taxes or other amounts required to be withheld, which arrangements (in the discretion of the Committee) may include relinquishment of a portion of such benefit. If a Participant's benefit is to be received in the form of shares of Common Stock, and such Participant fails to make arrangements for the payment of taxes or other amounts, then, unless otherwise determined by the Committee, the Company will withhold shares of Common Stock having a value equal to the amount required to be withheld. Notwithstanding the foregoing, when a Participant is required to pay the Company an amount required to be withheld under applicable income, employment, tax or other laws, the Participant may elect, unless otherwise determined by the Committee, to satisfy the obligation, in whole or in part, by having withheld, from the shares of Common Stock required to be delivered to the Participant, shares of Common Stock having a value equal to the amount required to be withheld or by delivering to the Company other shares of Common Stock held by such Participant. The shares of Common Stock used for

tax or other withholding will be valued at an amount equal to the fair market value of such shares of Common Stock on the date the benefit is to be included in Participant's income. In no event will the fair market value of the shares of Common Stock to be withheld and delivered pursuant to this **Section 16** to satisfy applicable withholding taxes or other amounts in connection with the benefit exceed the minimum amount required to be withheld, unless (i) an additional amount can be withheld and not result in adverse accounting consequences and (ii) is permitted by the Committee. Participants will also make such arrangements as the Company may require for the payment of any withholding tax or other obligation that may arise in connection with the disposition of shares of Common Stock acquired upon the exercise of Option Rights.

17. **Compliance with Section 409A of the Code.**

(a) To the extent applicable, it is intended that this Plan and any grants made hereunder comply with the provisions of Section 409A of the Code, so that the income inclusion provisions of Section 409A(a)(1) of the Code do not apply to the Participants. This Plan and any grants made hereunder will be administered in a manner consistent with this intent. Any reference in this Plan to Section 409A of the Code will also include any regulations or any other formal guidance promulgated with respect to such section by the U.S. Department of the Treasury or the Internal Revenue Service.

(b) Neither a Participant nor any of a Participant's creditors or beneficiaries will have the right to subject any deferred compensation (within the meaning of Section 409A of the Code) payable under this Plan and grants hereunder to any anticipation, alienation, sale, transfer, assignment, pledge, encumbrance, attachment or garnishment. Except as permitted under Section 409A of the Code, any deferred compensation (within the meaning of Section 409A of the Code) payable to a Participant or for a Participant's benefit under this Plan and grants hereunder may not be reduced by, or offset against, any amount owed by a Participant to the Company or any of its Subsidiaries.

(c) If, at the time of a Participant's separation from service (within the meaning of Section 409A of the Code), (i) the Participant will be a specified employee (within the meaning of Section 409A of the Code and using the identification methodology selected by the Company from time to time) and (ii) the Company makes a good faith determination that an amount payable hereunder constitutes deferred compensation (within the meaning of Section 409A of the Code) the payment of which is required to be delayed pursuant to the six-month delay rule set forth in Section 409A of the Code in order to avoid taxes or penalties under Section 409A of the Code, then the Company will not pay such amount on the otherwise scheduled payment date but will instead pay it, without interest, on the fifth business day of the seventh month after such separation from service.

(d) Solely with respect to any award that constitutes nonqualified deferred compensation subject to Section 409A of the Code and that is payable on account of a Change in Control (including any installments or stream of payments that are accelerated on account of a Change in Control), a Change in Control shall occur only if such event also constitutes a "change in the ownership," "change in effective control," and/or a "change in the ownership of a substantial portion of assets" of the Company as those terms are defined under Treasury Regulation §1.409A-3(i)(5), but only to the extent necessary to establish a time and form of payment that complies with Section 409A of the Code, without altering the definition of Change in Control for any purpose in respect of such award.

(e) Notwithstanding any provision of this Plan and grants hereunder to the contrary, in light of the uncertainty with respect to the proper application of Section 409A of the Code, the Company reserves the right to make amendments to this Plan and grants hereunder as the Company deems necessary or desirable to avoid the imposition of taxes or penalties under Section 409A of the Code. In any case, a Participant will be solely responsible and liable for the satisfaction of all taxes and penalties that may be imposed on a Participant or for a Participant's account in connection with this Plan and grants hereunder (including any taxes and penalties under Section 409A of the Code), and neither the Company nor any of its affiliates will have any obligation to indemnify or otherwise hold a Participant harmless from any or all of such taxes or penalties.

18. **Amendments.**

(a) The Board may at any time and from time to time amend this Plan in whole or in part; <u>provided</u>, <u>however</u>, that if an amendment to this Plan (i) would materially increase the benefits accruing to Participants under this Plan, (ii) would materially increase the number of securities which may be issued under this Plan, (iii) would materially modify the requirements for participation in this Plan, or (iv) must otherwise be approved by the Stockholders in order to comply with applicable law or the rules of the NASDAQ Stock Market or, if the shares of Common Stock are not traded on the NASDAQ Stock Market, the principal national securities exchange upon which the shares of Common Stock are traded or quoted, then, such amendment will be subject to Stockholder approval and will not be effective unless and until such approval has been obtained.

(b) Except in connection with a corporate transaction or event described in **<u>Section 11</u>** of this Plan or in connection with a Change in Control, the terms of outstanding awards may not be amended to reduce the Option Price of outstanding Option Rights or the Base Price of outstanding Appreciation Rights, or cancel outstanding "underwater" Option Rights or Appreciation Rights in exchange for cash, other awards or Option Rights or Appreciation Rights with an Option Price or Base Price, as applicable, that is less than the Option Price of the original Option Rights or Base Price of the original Appreciation Rights, as applicable, without Stockholder approval. This **<u>Section 18(b)</u>** is intended to prohibit the repricing of "underwater" Option Rights and Appreciation Rights and will not be construed to prohibit the adjustments provided for in **<u>Section 11</u>** of this Plan. Notwithstanding any provision of this Plan to the contrary, this **<u>Section 18(b)</u>** may not be amended without approval by the Stockholders.

(c) If permitted by Section 409A of the Code and Section 162(m) of the Code, but subject to the paragraph that follows, notwithstanding the Plan's minimum vesting requirements, and including in the case of termination of employment or service by reason of death, disability or retirement, or in the case of unforeseeable emergency or other circumstances or in the event of a Change in Control, to the extent a Participant holds an Option Right or Appreciation Right not immediately exercisable in full, or any Restricted Stock as to which the substantial risk of forfeiture or the prohibition or restriction on transfer has not lapsed, or any Restricted Stock Units as to which the Restriction Period has not been completed, or any Cash Incentive Awards, Performance Shares or Performance Units which have not been fully earned, or any other awards made pursuant to **Section 9** of this Plan subject to any vesting schedule or transfer restriction, or who holds shares of Common Stock subject to any transfer restriction imposed pursuant to **Section 15(b)** of this Plan, the Committee may, in its sole discretion, provide for continued vesting or accelerate the time at which such Option Right, Appreciation Right or other award may be exercised or the time at which such substantial risk of forfeiture or prohibition or restriction on transfer will lapse or the time when such Restriction Period will end or the time at which such Cash Incentive Awards, Performance Shares or Performance Units will be deemed to have been fully earned or the time when such transfer restriction will terminate or may waive any other limitation or requirement under any such award, except in the case of a Qualified Performance-Based Award where such action would result in the loss of the otherwise available exemption of the award under Section 162(m) of the Code.

(d) Subject to **Section 18(b)** of this Plan, the Committee may amend the terms of any award theretofore granted under this Plan prospectively or retroactively, except in the case of a Qualified Performance-Based Award (other than in connection with the Participant's death or disability, or a Change in Control) where such action would result in the loss of the otherwise available exemption of the award under Section 162(m) of the Code. In such case, the Committee will not make any modification of the Management Objectives or the level or levels of achievement with respect to such Qualified Performance-Based Award. Except for adjustments made pursuant to **Section 11** of this Plan, no such amendment will impair the rights of any Participant without his or her consent. The Board may, in its discretion, terminate this Plan at any time. Termination of this Plan will not affect the rights of Participants or their successors under any awards outstanding hereunder and not exercised in full on the date of termination.

19. **Governing Law.** This Plan and all grants and awards and actions taken hereunder will be governed by and construed in accordance with the internal substantive laws of the State of Delaware.

20. **Effective Date/Termination.** This Plan will be effective as of the Effective Date. No grants will be made on or after the Effective Date under the Predecessor Plans, provided that outstanding awards granted under the Predecessor Plans will continue unaffected following the Effective Date. No grant will be made under this Plan on or after the tenth anniversary of the Effective Date, but all grants made prior to such date will continue in effect thereafter subject to the terms thereof and of this Plan.

21. **Miscellaneous Provisions.**

(a) The Company will not be required to issue any fractional shares of Common Stock pursuant to this Plan. The Committee may provide for the elimination of fractions or for the settlement of fractions in cash.

(b) This Plan will not confer upon any Participant any right with respect to continuance of employment or other service with the Company or any Subsidiary, nor will it interfere in any way with any right the Company or any Subsidiary would otherwise have to terminate such Participant's employment or other service at any time.

(c) Except with respect to **Section 21(e)** of this Plan, to the extent that any provision of this Plan would prevent any Option Right that was intended to qualify as an Incentive Stock Option from qualifying as such, that provision will be null and void with respect to such Option Right. Such provision, however, will remain in effect for other Option Rights and there will be no further effect on any provision of this Plan.

(d) No award under this Plan may be exercised by the holder thereof if such exercise, and the receipt of cash or stock thereunder, would be, in the opinion of counsel selected by the Company, contrary to law or the regulations of any duly constituted authority having jurisdiction over this Plan.

(e) Absence on leave approved by a duly constituted officer of the Company or any of its Subsidiaries will not be considered interruption or termination of service of any employee for any purposes of this Plan or awards granted hereunder.

(f) No Participant will have any rights as a Stockholder with respect to any shares of Common Stock subject to awards granted to him or her under this Plan prior to the date as of which he or she is actually recorded as the holder of such shares of Common Stock upon the stock records of the Company.

(g) The Committee may condition the grant of any award or combination of awards authorized under this Plan on the surrender or deferral by the Participant of his or her right to receive a cash bonus or other compensation otherwise payable by the Company or a Subsidiary to the Participant.

(h) Except with respect to Option Rights and Appreciation Rights, the Committee may permit Participants to elect to defer the issuance of shares of Common Stock under this Plan pursuant to such rules, procedures or programs as it may establish for purposes of this Plan and which are intended to comply with the requirements of Section 409A of the Code. The Committee also may provide that deferred issuances and settlements include the crediting of dividend equivalents or interest on the deferral amounts.

(i) If any provision of this Plan is or becomes invalid or unenforceable in any jurisdiction, or would disqualify this Plan or any award under any law deemed applicable by the Committee, such provision will be construed or deemed amended or limited in scope to conform to applicable laws or, in the discretion of the Committee, it will be stricken and the remainder of this Plan will remain in full force and effect.

22. **Stock-Based Awards in Substitution for Option Rights or Awards Granted by Another Company.** Notwithstanding anything in this Plan to the contrary:

(a) Awards may be granted under this Plan in substitution for or in conversion of, or in connection with an assumption of, stock options, stock appreciation rights, restricted stock, restricted stock units or other stock or stock-based awards held by awardees of an entity engaging in a corporate acquisition or merger transaction with the Company or any Subsidiary. Any conversion, substitution or assumption will be effective as of the close of the merger or acquisition, and, to the extent applicable, will be conducted in a manner that complies with Section 409A of the Code. The awards so granted may reflect the original terms of the awards being assumed or substituted or converted for and need not comply with other specific terms of this Plan, and may account for shares of Common Stock substituted for the securities covered by the original awards and the number of shares subject to the original awards, as well as any exercise or purchase prices applicable to the original awards, adjusted to account for differences in stock prices in connection with the transaction.

(b) In the event that a company acquired by the Company or any Subsidiary or with which the Company or any Subsidiary merges has shares available under a pre-existing plan previously approved by stockholders and not adopted in contemplation of such acquisition or merger, the shares available for grant pursuant to the terms of such plan (as adjusted, to the extent appropriate, to reflect such acquisition or merger) may be used for awards made after such acquisition or merger under this Plan; provided, however, that awards using such available shares may not be made after the date awards or grants could have been made under the terms of the pre-existing plan absent the acquisition or merger, and may only be made to individuals who were not employees or directors of the Company or any Subsidiary prior to such acquisition or merger.

(c) Any shares of Common Stock that are issued or transferred by, or that are subject to any awards that are granted by, or become obligations of, the Company under **Sections 22(a)** or **22(b)** of this Plan will not reduce the shares of Common Stock available for issuance or transfer under this Plan or otherwise count against the limits contained in **Section 3** of this Plan. In addition, no shares of Common Stock subject to an award that is granted by, or becomes an obligation of, the Company under **Sections 22(a)** or **22(b)** of this Plan, will be added to the aggregate limit contained in **Section 3(a)(i)** of this Plan in the following circumstances: (i) if such award is cancelled or forfeited, expires or is settled for cash (in whole or in part), (ii) if such shares of Common Stock are withheld by the Company, tendered or otherwise used in payment of the Option Price of an Option or to satisfy a tax withholding obligation with respect to any award or (iii) if such shares of Common Stock are not actually issued in connection with the settlement of an Appreciation Right on the exercise thereof.

AMENDMENT NO. 8 TO AMENDED AND RESTATED RECEIVABLES TRANSFER AGREEMENT

AMENDMENT NO. 8 TO AMENDED AND RESTATED RECEIVABLES TRANSFER AGREEMENT (as amended, supplemented or otherwise modified and in effect from time to time, this "***Amendment***"), effective as of April 21, 2017 (the ***"Effective Date"***), is entered into by and among TSPC, INC., a Nevada corporation, as transferor (in such capacity, the "***Transferor***"), TRIMAS CORPORATION, a Delaware corporation, as collection agent (in such capacity, the "***Collection Agent***"), TRIMAS COMPANY LLC, a Delaware limited liability company, as guarantor (in such capacity, the "***Guarantor***"), and WELLS FARGO BANK, NATIONAL ASSOCIATION, successor by merger to Wachovia Bank, National Association, individually (in such capacity, the sole "***Purchaser***"), as letter of credit issuer (in such capacity, together with its successors in such capacity, the "***LC Issuer***") and as administrative agent (in such capacity, together with its successors in such capacity, the "***Administrative Agent***"). Capitalized terms used and not otherwise defined herein are used with the meanings attributed thereto in the Agreement (as defined below).

W I T N E S S E T H:

WHEREAS, the parties hereto have entered into that certain Amended and Restated Receivables Transfer Agreement dated as of September 15, 2011, as amended by Amendment No. 1 to the Amended and Restated Receivables Transfer Agreement dated as of June 29, 2012, Amendment No. 2 to the Amended and Restated Receivables Transfer Agreement dated as of December 17, 2012, Amendment No. 3 to the Amended and Restated Receivables Transfer Agreement dated as of April 17, 2014, Amendment No. 4 to the Amended and Restated Receivables Transfer Agreement dated as of November 26, 2014, Amendment No. 5 dated as of February 28, 2015, Amendment No. 6 effective as of June 29, 2015, and Amendment No. 7 effective as of December 16, 2015 (as amended, amended and restated, or otherwise modified from time to time, the "***Agreement***"); and

WHEREAS, the parties wish to amend the Agreement on the terms and conditions hereinafter set forth.

NOW, THEREFORE, for good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, it is hereby agreed by and among the parties as follows:

1. <u>Amendment</u>. Effective as of the Effective Date, clause (5) of the definition of "<u>Eligible Receivable</u>" in <u>Schedule A</u> to the Agreement is hereby amended and restated in its entirety to read as follows:

(5) (A) which arises pursuant to a Contract with respect to which the Seller has performed all obligations required to be performed by it thereunder, including, without limitation, shipment of the merchandise and/or the performance of the services purchased thereunder; (B) which has been billed, and (C) which, on the date of determination, is due and payable within 90 days of the original due date therefor in accordance with the terms of the applicable Contract; ***provided, however,*** that in no event may the aggregate Outstanding Balance of Receivables that are due and payable within 61-90 days of the original due date therefor in accordance with the terms of the applicable Contract that are included as Eligible Receivables exceed 5% of the aggregate Outstanding Balance of all Receivables at such time.

2. Representations and Warranties. In order to induce the Administrative Agent, the LC Issuer and the sole Purchaser to enter into this Amendment, each of the Transferor, the Guarantor and the Collection Agent (each, a *"Transferor Party"*) hereby represents and warrants to the Administrative Agent, the LC Issuer and the sole Purchaser as follows:

(a) Entity and Governmental Authorization; Contravention. The execution, delivery and performance by such Transferor Party of this Amendment are within its corporate or limited liability company powers, as the case may be, have been duly authorized by all necessary corporate or limited liability company action, as applicable, require no action by or in respect of, or filing with, any Official Body or official thereof, and do not contravene, or constitute a default under, any provision of applicable law, rule or regulation or of the Certificate of Incorporation or the By-Laws (or other organizational documents) of such Transferor Party, or of any agreement, judgment, injunction, order, writ, decree or other instrument binding upon such Transferor Party, or result in the creation or imposition of any Adverse Claim on the assets of such Transferor Party (except those created by the Agreement).

(b) Binding Effect. The Agreement, as amended by this Amendment, constitutes the legal, valid and binding obligation of such Transferor Party, enforceable against it in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, fraudulent conveyance, moratorium or other similar laws affecting the rights of creditors and general equitable principles (whether considered in a proceeding in equity or at law).

(c) Consents, Licenses, Approvals, Etc. No consents, including, without limitation, consents under loan agreements and indentures to which such Transferor Party is a party), licenses or approvals are required in connection with the execution, delivery and performance by such Transferor Party of this Amendment, or the validity and enforceability against such Transferor Party of this Amendment, except such consents, licenses and approvals as have already been obtained and that remain in full force and effect on the date hereof.

3. Conditions Precedent.

3.1 **This Amendment shall become effective when each of the following conditions precedent has been satisfied:**

(a) The Administrative Agent shall have received counterparts of this Amendment, duly executed by each of the parties hereto;

(b) The Administrative Agent's counsel shall have received payment in full of its reasonable fees and disbursements in connection with the preparation, negotiation, and closing of this Amendment and the other documents required to be delivered to it hereunder; and

(c) Each of the representations and warranties contained in Section 2 of this Amendment shall be true and correct in all material respects, it being understood that the foregoing materiality qualifier shall not apply to any representation that itself contains a materiality threshold.

4. <u>Miscellaneous</u>.

4.1. This Amendment shall be governed by and construed in accordance with the laws of the State of New York.

4.2. Each of the parties hereto hereby submits to the nonexclusive jurisdiction of the United States District Court for the Southern District of New York and of any New York state court sitting in The City of New York for purposes of all legal proceedings arising out of or relating to this Amendment or the transactions contemplated hereby. Each of the parties hereto hereby irrevocably waives, to the fullest extent it may effectively do so, any objection which it may now or hereafter have to the laying of the venue of any such proceeding brought in such a court and any claim that any such proceeding brought in such a court has been brought in an inconvenient forum. Nothing in this Section 4.2 shall affect the right of any party hereto to bring any action or proceeding against any party hereto or its respective properties in the courts of other jurisdictions.

4.3. This Amendment may be executed in two or more counterparts thereof (and by different parties on separate counterparts), each of which shall be an original, but all of which together shall constitute one and the same instrument. Delivery of an executed counterpart of a signature page to this Amendment by facsimile or by electronic mail with a .PDF or other image of a signed counterpart attached shall be effective as delivery of a manually executed counterpart of this Amendment to the fullest extent permitted by applicable law.

4.4. This Amendment will inure to the benefit of and be binding upon the parties hereto and their respective successors, transferees and permitted assigns.

4.5. The headings herein are for purposes of reference only and shall not otherwise affect the meaning or interpretation of any provision hereof.

4.6. Each of the parties hereto hereby waives any right to have a jury participate in resolving any dispute, whether sounding in contract, tort or otherwise among any of them arising out of, connected with, relating to or incidental to the relationship between them in connection with this Amendment. The provisions of this Section shall be continuing and shall survive any termination of the Agreement as amended hereby.

4.7. By its signature below, the Guarantor hereby confirms that its Limited Guaranty set forth in Article IX of the Agreement remains in full force and effect as of the date hereof and after giving effect to this Amendment.

IN WITNESS WHEREOF, the parties have caused this Amendment to be duly executed by their respective officers as of the day and year first above written.

TSPC, INC., as Transferor

By: /s/ Robert Zalupski
Name: Robert Zalupski
Title: Vice President & Treasurer

TRIMAS CORPORATION, individually, as Collection Agent

By: /s/ Robert Zalupski
Name: Robert Zalupski
Title: Chief Financial Officer

TRIMAS COMPANY LLC, individually, as Guarantor

By: /s/ Robert Zalupski
Name: Robert Zalupski
Title: Vice President & Treasurer

WELLS FARGO BANK, NATIONAL ASSOCIATION, as a Purchaser, as LC Issuer and as Administrative Agent

By: /s/ Elizabeth R. Wagner
Name: Elizabeth R. Wagner
Title: Managing Director

Exhibit 10.3

Wells Fargo Bank, National Association
1100 Abernathy Road, N.E.
Suite 1600
Atlanta, GA 30328-5657

CONFIDENTIAL

April 21, 2017

TSPC, Inc.
c/o TriMas Corporation
39400 Woodward Avenue
Suite 130
Bloomfield Hills, Michigan 48304
Attn: Robert Zalupski

SIXTH AMENDED AND RESTATED FEE LETTER

Ladies and Gentlemen:

This is the Fee Letter ("Fee Letter") referred to in the Amended and Restated Receivables Transfer Agreement dated as of September 15, 2011 (as amended, restated or otherwise modified from time to time, the "Agreement") by and among TSPC, INC., a Nevada corporation, as transferor (in such capacity, the "Transferor"), TRIMAS CORPORATION, a Delaware corporation, as Collection Agent, TRIMAS COMPANY LLC, a Delaware limited liability company, as Guarantor, the purchasers from time to time party thereto (each, a "Purchaser"), and WELLS FARGO BANK, NATIONAL ASSOCIATION, a national banking association, individually as a Purchaser ("Wells Fargo") and as Administrative Agent (together with its successors in such latter capacity, the "Administrative Agent"). From and after the date hereof (the "Effective Date"), this Fee Letter amends and restates that certain fifth amended and restated fee letter effective as of December 16, 2015 by and among the parties. Capitalized terms used herein but not defined herein shall have the meanings assigned to such terms in the Agreement.

1. In addition to the legal, audit and other fees and expenses set forth in the Agreement and other amounts due to the Administrative Agent, the LC Issuer or the Purchaser(s) under the terms of the Agreement, the Transferor hereby agrees to pay the following fees in immediately available funds:

(a) [intentionally omitted];

(b) for each Letter of Credit, on its date of issuance and on each date, if any, on which its expiry date is extended or its face amount is increased, the Transferor agrees to pay to each of the Purchasers, such Purchaser's Pro Rata Share of a fully earned and non-refundable fee equal to (i) a percentage equal to 99.9% of the Applicable Margin then in effect, multiplied by (ii) the face amount of such Letter of Credit (or, in the case of an increase in the face amount of such Letter of Credit, on the amount of such increase) multiplied by (iii) a fraction, the numerator of which shall be the actual number of days until such Letter of Credit's expiry date (or, in the case of an extension, the actual number of days from but excluding the initial expiry date to and including the extended expiry date), and the denominator of which shall be 360 days;

(c) if, at any time, there is more than one Purchaser, on each Monthly Payment Date, the Transferor agrees to pay to the LC Issuer, for its sole account, a fully earned and non-refundable fee for the month prior to the month most recently ended equal to 0.15% multiplied by the average daily face amount of all Letters of Credit outstanding for such calendar month (or portion thereof) then most recently ended (the "Fronting Fee"). The Fronting Fee shall be computed for actual days elapsed on the basis of a 360-day year, *provided, however,* with respect to the Termination Date, the Fronting Fee payable shall be equal to the Fronting Fee accrued for the actual number of days elapsed from and including the last day of the calendar month immediately preceding the most recent Monthly Payment Date to but excluding the Termination Date; and

(d) on each Monthly Payment Date, the Transferor agrees to pay to the each of the Purchasers, a fully earned and non-refundable fee for the month prior to the month most recently ended equal to 0.35% multiplied by the average daily difference between such Purchaser's Commitment and its Credit Exposure for the calendar month (or portion thereof) then most recently ended (the "Unused Fee"). The Unused Fee shall be computed for actual days elapsed on the basis of a 360-day year, *provided, however,* with respect to the Termination Date, the Unused Fee payable shall be equal to the Unused Fee accrued for the actual number of days elapsed from and including the last day of the calendar month immediately preceding the most recent Monthly Payment Date to but excluding the Termination Date.

2. As used in the Agreement, "Special Obligors" means (a) solely with respect to Receivables arising on or after October 31, 2012, Henkel Corporation, The Dial Corporation and their Affiliates, (b) solely with respect to Receivables arising on or after March 31, 2014, Hamilton Sundstrand Corporation and its Affiliates, and (c) solely with respect to Receivables arising on or after the date hereof, The Boeing Company and its Affiliates. Subject to the approval of the Administrative Agent (such approval not to be unreasonably withheld), the term "Special Obligors" shall also include any entity reasonably requested by the Transferor.

3. L Brands, Inc. and its Affiliates shall have a Designated Concentration Limit of 8%, it being understood that such Designated Concentration Limit may be cancelled by any Purchaser upon not less than five (5) Business Days' written notice to Transferor and the Administrative Agent.

4. As used in the Agreement, "Applicable Margin" means 1.00% for each Calculation Period.

5. As used in the Agreement "Special Adjustment" means, for purposes of calculating the Dilution Ratio as of any Cut-Off Date on which the Receivables of a Special Obligor are not Excluded Receivables and are not Eligible Receivables, a reduction of the numerator of the Dilution Ratio by the total amount of decreases in outstanding principal balances of Receivables owing from such Special Obligor due to Dilution during the Calculation Period ending on such Cut-Off Date, and a reduction of the denominator by the aggregate sales to such Special Obligor generated by the Sellers during the Calculation Period ending three months prior to the Calculation Period ending on such Cut-Off Date.

6. Transferor acknowledges and agrees that in the event Administrative Agent is asked to provide its consent to the addition of a Purchaser to the Agreement, Administrative Agent may condition such consent on receipt of a reasonable and customary Administrative Agent's fee from Transferor in an amount to be negotiated by the parties.

THIS FEE LETTER SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO THE PRINCIPLES OF CONFLICTS OF LAWS THEREOF OTHER THAN SECTION 5-1401 OF THE GENERAL OBLIGATIONS LAW.

This Fee Letter may be executed in any number of counterparts and by different parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which when taken together shall constitute one and the same agreement. Delivery of an executed counterpart of a signature page to this Fee Letter by facsimile shall be effective as delivery of a manually executed counterpart of a signature page hereto.

If the foregoing reflects our understanding, kindly execute the enclosed copy hereof any return it to the undersigned, whereupon this Fee Letter shall be binding upon you and us.

Very truly yours,

WELLS FARGO BANK, NATIONAL ASSOCIATION, as LC Issuer and as Administrative Agent

By: /s/ Elizabeth R. Wagner
Name: Elizabeth R. Wagner
Title: Managing Director

Agreed to and accepted as of the date first above written:

TSPC, Inc.

By: /s/ Robert Zalupski
Name: Robert Zalupski
Title: Vice President & Treasurer

Exhibit 31.1

Certification
Pursuant to Section 302 of The Sarbanes-Oxley Act of 2002
(Chapter 63, Title 18 U.S.C. Section 1350(A) and (B))

I, Thomas A. Amato, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of TriMas 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.

Date: July 27, 2017

/s/ THOMAS A. AMATO

Thomas A. Amato
Chief Executive Officer

Exhibit 31.2

Certification
Pursuant to Section 302 of The Sarbanes-Oxley Act of 2002
(Chapter 63, Title 18 U.S.C. Section 1350(A) and (B))

I, Robert J. Zalupski, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of TriMas 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.

Date: July 27, 2017

/s/ ROBERT J. ZALUPSKI

Robert J. Zalupski
Chief Financial Officer

Exhibit 32.1

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 Quarterly Report of TriMas Corporation (the “Company”) on Form 10-Q for the period ended June 30, 2017 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Thomas A. Amato, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to the best of my 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.

Date: July 27, 2017

/s/ THOMAS A. AMATO

Thomas A. Amato
Chief Executive Officer

Exhibit 32.2

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 Quarterly Report of TriMas Corporation (the "Company") on Form 10-Q for the period ended June 30, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Robert J. Zalupski, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to the best of my 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.

Date: July 27, 2017

/s/ ROBERT J. ZALUPSKI

Robert J. Zalupski
Chief Financial Officer